

The Shildon Circular: Do the Locomotion! Stockton & Darlington Railway Walk No.3



The Railway that got the World on Track



THE ROUTE OF THE S&DR 1825: The Shildon Circular

Stockton & Darlington Railway Walk No. 3

The Friends of the Stockton & Darlington Railway was formed in 2013 to bring together all those with an interest in the S&DR to plan for the bicentenary in 2025, and ensure a lasting legacy of recognition and protection for the 1825 Stockton & Darlington Railway line as the birthplace of the modern railway.

This booklet is part of a series along the 26-mile stretch of line from Witton Park Colliery to Stockton and represents the first stage in improving the interpretation of and access to the line. We also aim to ensure that the standing remains are conserved and have proper legal protection. Other booklets in the series can be found on our website: www.sdr1825.org.uk/store/, where you can also find out how to join the Friends.

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This self-guided walk booklet was funded through the 'Sharing Heritage' fund of the Heritage Lottery Fund in 2016 and updated in 2023, thanks to funding from Brightwater Partnership and volunteer time from the Friends of the Stockton & Darlington Railway.

Your walk starts and ends at Locomotion, Shildon. Shildon's railway station is located at Locomotion and journeys here from Thornaby, Eaglescliffe, Darlington and Heighington will mostly travel along the 1825 route, which has continuously operated ever since. In the museum there are toilets and a café available. There are several car parks, and the route is well served with bins for dog waste. Information on local buses can be found here: <https://bustimes.org/search?q=shildon>. Information on trains (Shildon) can be found here: www.thetrainline.com/stations/shildon

This walk starts at the car park off Dale Road, near the modern buildings housing the locomotives (at NZ 23908 25465, ///merit.remarried.intend or the post code for sat nav DL4 2RE).

However, you can shorten the walk by starting at another car park at the west end of Locomotion near Station Street (NZ 23261 25733, ///dates.face.commented or sat nav post code DL4 1PF) where the Goods Shed is (walk point 4) with views to the Coal Drops and Kilburn's Warehouse.

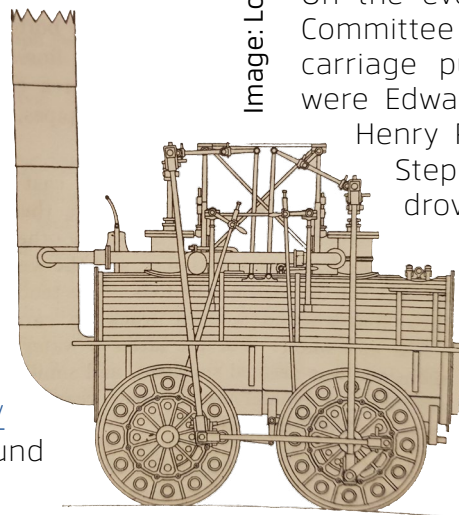
HISTORIC BACKGROUND

Shildon has a special place in the history of the railways and was the location of an important stopping point during the opening ceremony of the Stockton & Darlington Railway on the 27th September 1825, where the waggons were transferred from the rope pulled incline at Brusselton to the power of 'Locomotion No.1'.

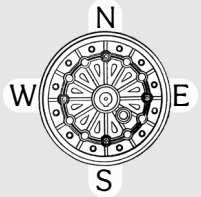
A few days previously, on the 20th September, the passenger coach 'Experiment' arrived at Shildon from Newcastle where it had been built, and was later coupled to 'Locomotion No.1'. 'Experiment' was described by a reporter at the time as being fitted like a long coach with passengers sitting face to face along its sides. It was designed to carry 16 or 18 passengers inside and from the start was intended to travel daily between Darlington and Stockton.

On the evening of the 26th September, several members of the Committee travelled down from Shildon to Darlington in this passenger carriage pulled by Locomotion No.1. Those Committee members were Edward Pease (senior), Edward Pease (junior), Joseph Pease, Henry Pease, Thomas Richardson, William Kitching and George Stephenson. James Stephenson, George's younger brother, drove the engine (Heavisides 1912, 55). This group, dominated by the Pease family, was not to be repeated on the grand opening day of the 27th. Despite the Peases and other Quakers having a pivotal role in the creation of the railway, they did not attend the opening day. This was in part because they did not approve of pomp and public jollity, but mainly because Edward and Rachel Pease's son Isaac, aged twenty-two, died at home in Northgate, Darlington after a long illness on the 27th (see the Darlington Circular

Image: Locomotion No.1 from Engineer



Shildon



Walk). However, the passenger coach 'Experiment' was retained for other Committee members to use on the grand opening day.

New Shildon was also the location of a major railway engineering works, initially established by the S&DR in 1825 under the supervision of Timothy Hackworth. Shildon was to be dominated by the railway works until 1984. The railway thus created New Shildon from 1825, south of the original Old Shildon, and this walk includes both settlements, which today are collectively called Shildon.

WALK START

From the car park, walk down to the front of the first museum building and head left (west) along the path that runs parallel with the railway line, and under the road bridge which carries Spout Lane over it (Spout Lane named after the coal spouts where coal was delivered from nearby collieries to the S&DR mainline). When the S&DR opened, Spout Lane was not carried over the line by a bridge, but was a level crossing; the bridge not being built until the second half of the 19th century. The path below is on the route of the 1825 S&DR. After nearly 300m from the first museum shed you will see a signal box and buildings on your right on the opposite side of the line.

1 Signal Box and Railway Cottages/ Weigh House: The signal box dates to 1887 but was modified in 1928 and 1984 – various alterations are apparent in the brickwork. This was built for the Central Division (covering the former S&DR routes) of the North Eastern Railway, possibly designed by Thomas Prosser, architect to the NER. This box is a variant of the Division's Type C2 signal box. The interior retains its McKenzie & Holland pattern 16 frame lever system installed in 1928, and reduced from 55 levers to 42 levers in 1984.

There are two other railway buildings here, one of which was the signalman's cottage. The other may have been a weigh house with weigh machine. This was not the original weigh house that was home to Joseph Anderson who was appointed on the 14th May 1827 to manage the weigh machine. As Joseph Anderson's responsibilities also extended over much of the first five miles of track, including timekeeping at the Shildon Works, and dealing with tickets for trains passing over Brusselton bank, Mrs Anderson also covered his duties at Spout Lane



The 1887 signal box, signalman's cottage and possible weigh house to the right.

(White's Directory 1828 and Holmes 1975, 18).

Continue along this path. The modern Shildon Railway Station is on the right and trains can be caught here for Darlington, Aycliffe Heighington, Dinsdale, Eaglescliffe and Thornaby; all offering access to other parts of the line. Just past the station level crossing, you will see the locomotive coaling drops.

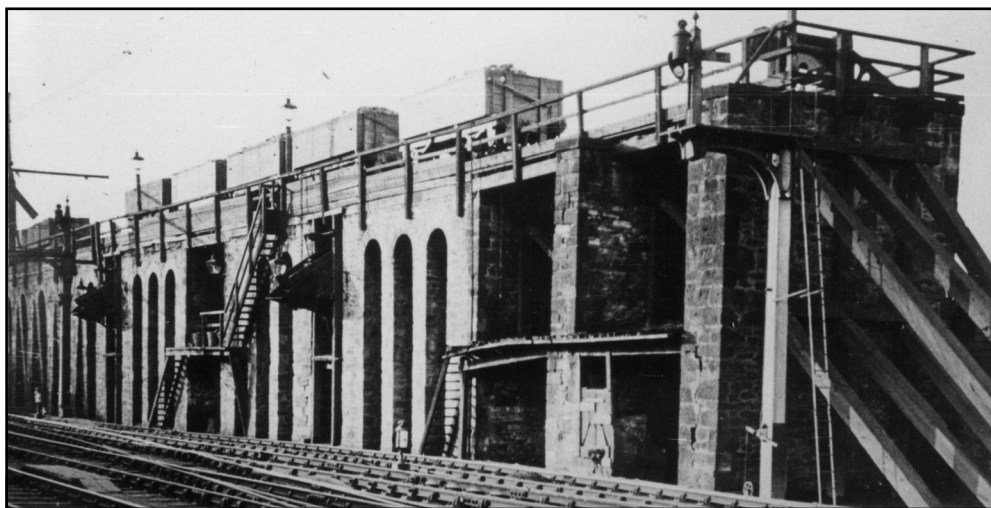


An undated photograph of the signal box and adjacent buildings and the coal drops in the distance. 43106 was built at Darlington in 1951. Although it was originally withdrawn from service in 1968, it is still operational on the Severn Valley Railway

2 Locomotive Coaling Drops: These stone arched structures on the right are locomotive coaling drops constructed in early 1847 to a design by John Graham, S&DR Traffic Manager, under the supervision of William Bouch, foreman engineer of Shildon Works (Jecock 2022, 2). They remained in use until the closure of Shildon engine shed in 1935. They were designed to improve the re-fuelling and turn-round times of steam locomotives returning empty coal waggons to New Shildon before heading back east with their next train.

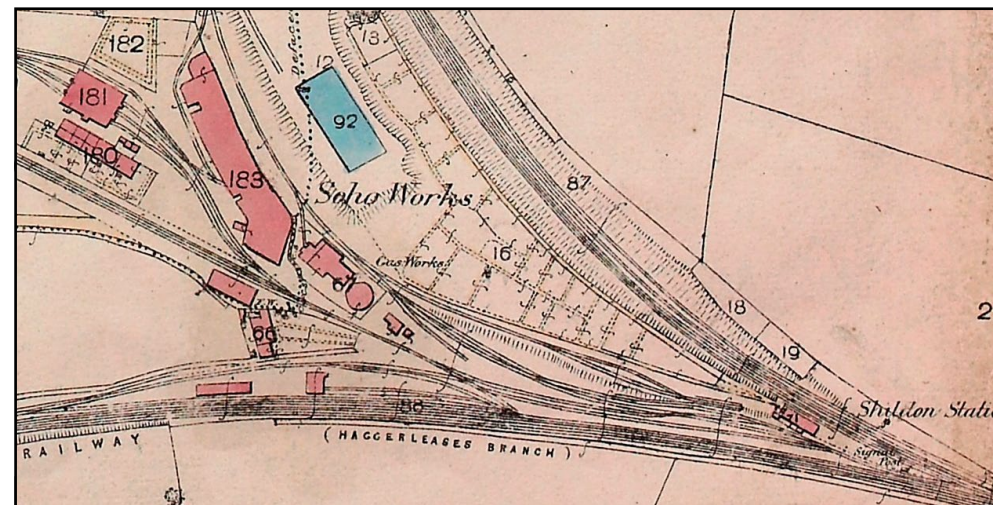
Waggons loaded with coal from the Black Boy collieries were shunted up the ramp on the far side and along the top of the coal drops, where the coal would be released into a wooden hopper and then an iron chute which directed the coal into a waiting tender below. Platforms were also used to allow coal to be shovelled directly into the tenders.

This structure represents one of the first attempts - if not *the* first attempt - in Britain (and possibly the world) to mechanise the process of coaling locomotives, which up until that time had been carried out by men hand-shovelling from lineside bunkers or waggons parked on an adjacent siding. Such a lineside bunker had previously existed a little further along towards the Goods Shed.



1925 photograph showing the pre-1896 timber-decked extension. The door beneath the platform in the end bay suggests that it was at one time used for storage, although anecdotally it was an office. [unknown photographer. Head of Steam – Darlington Railway Museum]

If you look carefully, you will see that some of the materials were old four-hole stone sleepers used from the 1830s by the S&DR, but here split and reused. The pale coloured bricks were a mixture of local bricks including Bolckow and Vaughan Company bricks.



The 1st ed OS map dating to 1855 showing the extent of the Soho Works by that time, and the gas works.

3 Platelayer's Cabin and Outbuildings: Continue along this path past the coal drops. On the other side of the line, you will see three small buildings. This is where the S&DR mainline (1825) and Surtees branch line (1831) met the Black Boy branch (1827) to the rear. The function of the central building with the door and windows on either side is unknown, but may have been a meter house associated with the gasworks once located to the rear (Charlie Walton pers comm).

The building to the right was a platelayers' cabin (a platelayer is a railway employee whose job is to inspect and maintain the permanent way of a railway. The term derives from the plates used to build plateways, an early form of railway). Its recently restored castellated roofline was to the same design as a now demolished cabin at Simpasture junction, suggesting that perhaps this was an S&DR design for some railway buildings.

The small building to the left may have been a bank riders' cabin. Bank riders rode with the waggons ready to apply the brakes.



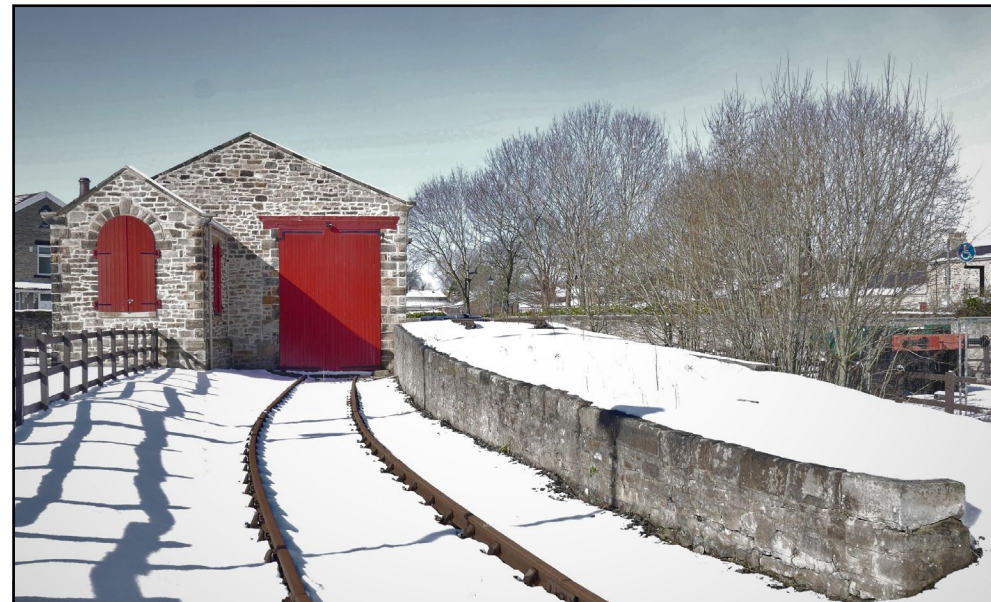
The platelayers' cabin and central building of unknown function with locomotive coal refuelling drops in the distance in 1974. The roof and chimney of Shildon station can just be seen. Photo: John Proud courtesy of Win Proud

The site also featured its own gas works built in 1841 to provide for both the Soho Works and the railway. This provided the town with gas lighting; the only other area to be afforded such luxury at the time being Grey Street in Newcastle. The stone wall to the left separates S&DR land from private land owned by Kilburn's and Hackworth and possibly dates to 1833 or 1863.

Continue along the path towards the Goods Shed on your right, just opposite the small car park.

4 The Goods Shed with Coal Depot and Parcel Office: The older stone building in front of you is the Goods Shed. It was built c.1855 from old stone two-hole sleeper blocks, presumably taken from the 1825 line. If you look at the front elevation you will see many of them split in half and some have even been re-carved to form ornate dressed quoins on the edges of the building. The Goods Shed was the hub of the distribution network operated by the railway. The parcel office administered the movement of goods in and out.

To the side and at the back there is a ramp to bring waggons up for unloading coal. Laden waggons would tip the coal from the elevated ramp into coal cells below for the local domestic market (including Hackworth's house). Other goods would be taken into the shed for distribution and horse-drawn carts would arrive at the arched door on the front to take them away. Over to your left, the small wooden shed is a parcel collection hut, possibly a LNER one from 1923 (Jane Hackworth-Young pers comm).



The Goods Shed and elevated ramp to the rear for dropping coal into waiting carts for domestic sale, known as 'landsale' (as opposed to being taken to the port for export). Photo: Trevor Horner

The original 1825 line continued along what is now a path in front of Station Street. Veer left and walk along Station Street with the houses on your right and the large stone boundary wall on your left (the 1825 line was on the other side of this wall and you will return this way). When you get to Cross Street, the small garden area on the corner of Cross Street and Station Street, is on the site of the British School.

5 The British School and Mechanics' Institute (DL4 1PF): This unassuming spot was the centre for education in the early days of the railway. The white rendered building was the site of the British School opened in 1841 by the Stockton & Darlington Railway for 340 children (Hutchinson 2003, 30). Mr John Pickering, a mechanic in Shildon Engine Works, was appointed as the first schoolmaster; he was distantly related to Hackworth by marriage. The building was maintained by the Railway Company and the management was carried out by a committee of railway officials and employees. All railway employees at Shildon had one penny per week deducted from their wages towards meeting expenses, and those who sent their children to be educated contributed a 'school pence' (Bainbridge 1933, 8).

Unsurprisingly the motivation for founding this school had its roots in the Quaker movement, which was dear to the hearts of the S&DR's founders. British Schools were a concept devised by a Quaker named Joseph Lancaster, who had become concerned that the poorer classes were denied the opportunity of education in the late 18th century. He understood that the main cost of education centred on the need to pay teachers' salaries. He developed a method of teaching whereby a single teacher was responsible for educating 300 or more boys, all accommodated in one large school room, which was very much the format of the British School building at New Shildon. This large room now hosts a dance school. The system worked by having older, more able, children who had already received some education teach what they had learned down to the younger children. This provided a cheap basic education with limited resources. The British School was also used by the local Mechanics' Institute for their lectures as they had insufficient space of their own (until 1860) in the Masons Arms. (Thank you to Dave Reynolds of the Railway Institute, Shildon for this information).

The garden area opposite was once a Picture House, at one time called The Essoldo, which closed in 1970, but before that, until 1913, it was the Mechanics' Institute which moved here from its previous premises at the Masons Arms. Its foundation stone was laid on the 24th August 1859 and it was formally opened by Henry Pease on April 17th 1860 and followed by a concert. Inside this S&DR owned building, there was a lecture hall with a raised gallery, two separate smaller rooms, and a lobby between the hall and the main entrance which faced out onto Station Street. The Institute rented the building at a modest £1 per annum from the S&DR. It was significantly upgraded in 1885 (ibid), but by the early 1900s structural defects were noticed. In 1906 the building had to be closed and requests were repeatedly made to the NER (the S&DR having amalgamated with the NER back in 1863) for new premises. These new premises were not opened until 1913 on Redworth Road (point 22 on this walk). Meanwhile the structural deficiencies of the original building were presumably overcome so that it could start a new life as a cinema.

Walk along Cross Street – the large building with stained glass windows at the end is the Wesleyan Chapel. Just around the corner at the bottom of Soho Street is the Sunday School.



The former Mechanics' Institute building reused as a cinema, probably 1969 after the building was closed. (Creative Commons (Attribution) License)

6 Wesleyan Sunday School and Chapel (DL4 1PG): Timothy Hackworth, who was the engineer for the S&DR from 1825-1840 was a devout Wesleyan Methodist. He was originally converted to Methodism in 1810/11 and through attending Methodist meetings met his wife-to-be, Jane Golightly. Indeed, his strong religious beliefs resulted in his leaving his job in Wylam, when he was asked to work on Sundays. Jane and Timothy were to have considerable influence in spreading Methodism in their new community. They joined railway workers and enginemmen in a congregation at Toft Hill and became preachers there. Hackworth was responsible for having two chapels built in Shildon, providing no less than 30 preachers to edify the people there; so, the traditions of Wesleyan Methodism continued long after his death.

The chapels Hackworth worshipped in have now gone, but this large Wesleyan Chapel was built on Soho Street in 1865. In 1888, the red brick Sunday School was built at the other end of the row using bricks from

either the Shildon Brick and Tile works further west on the Surtees Line, or the New Shildon Brickworks adjacent to the S&DR Works at New Shildon. It consisted of a large hall and seven classrooms.

Walk down Soho Street (note the kerb between the chapel and the Sunday school, made from reused sleeper blocks), named after Hackworth's Soho Works, past the Sunday School and cross the road towards the grassy area and a row of cottages to the left. This is where Timothy Hackworth and his family lived from 1831.



Soho Chapel and adjacent Manse built in 1865 (above left) and the red brick Sunday School of 1888 (above right)

1786

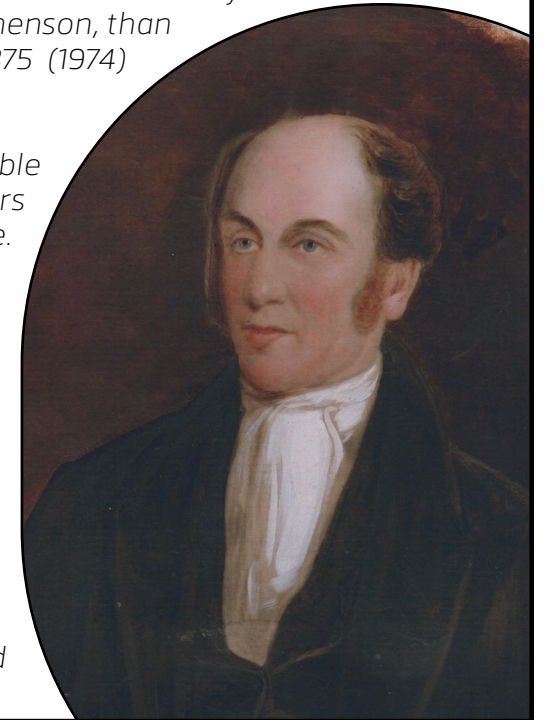
Taking you further... Timothy Hackworth.

Timothy Hackworth was master of ceremonies at the opening of the S&DR and also acted as the first guard, during the momentous journey on the 27th September 1825. He was born in Wylam (as was George Stephenson) near the River Tyne in 1786 and at fourteen left school to take an apprenticeship before following his father (who died in 1804) as foreman of the smiths at the nearby colliery in 1810. Whilst at Wylam, he worked with Hedley and Forster on the design and construction of a number of steam engines, including Puffing Billy, Wylam Dilly and Perseverance, and was responsible for all

maintenance and improvement work. In 1815 he left Wylam, having refused to work on the Sabbath, and in 1816, he became foreman of Walbottle Colliery. Eight years later, in 1824, George Stephenson invited Hackworth to oversee the newly built locomotive works, Robert Stephenson & Co in Newcastle upon Tyne, where Locomotion was in the process of construction. Robert Stephenson had left to work in Colombia and wouldn't return to the country until late in 1827. During Hackworth's time at Robert Stephenson & Co., Hackworth had considerable influence on the design of Locomotion No.1 (he subsequently rebuilt the engine three times with a succession of modifications and improvements, including the system of coupling the wheels with outside rods and a return crank rather than chains). Hackworth was appointed as the Superintendent of Permanent and Locomotive Engines for the Stockton & Darlington Railway in May 1825. It fell to Hackworth to keep all the steam engines running, whether stationary or mobile, which, given the embryonic nature of these machines, was no mean feat.

"Locomotive engineering owes more to Timothy Hackworth, after George Stephenson, than to any other man" (Jeans 1875 (1974) 269).

Later he designed the first reliable engine to withstand the rigours of everyday commercial use. This was the Royal George (1827), a powerful six-coupled locomotive which is seen as the first in the world to establish steam power as a viable and economic alternative to horse power. The Royal George was a far superior machine, and the first engine in which the cylinders drove directly onto the wheels and employed a correctly aligned and valved



steam blast-pipe which ensured that boiler pressure was always maintained; thus curing the lack of steam found in Stephenson's earlier engines. This concept was applied to all later engine designs, including Robert Stephenson's Rocket. Other improvements, conceived by Hackworth, included the characteristic plug wheel (which inspired the street furniture you will see later on this walk) and the prototype 0-6-0 mineral engine which was to become the standard wheel arrangement for goods and mixed traffic engines right up until the last days of the steam locomotive in the late 1960s (Walton, pers.com). In 1829, another of Hackworth's engines, the Sans Pareil competed against the Rocket in the Liverpool to Manchester Rainhill railway trials. This was a six-day trial during which the engines had to run ten trips over a length of track at Rainhill in order to assess whether they were fast and reliable enough to make regularly the return journey between Liverpool and Manchester. Five engines competed for the £500 prize; however, the Sans Pareil burst a cylinder and lost out to Stephenson's Rocket. Local feeling has it that the cracked cylinder, which was cast and bored at Stephenson's works, had been deliberately sabotaged by the rival company. However these were delicate tasks which could easily go wrong without the need for sabotage.

7 The Soho Works and Hackworth's House (DL4 1PQ): When the new Stockton & Darlington Railway opened in 1825 Hackworth was appointed the first locomotive superintendent and set up his headquarters in New Shildon. The choice of the site was a logical one, being close to the Brusselton incline where he was responsible for the maintenance of the stationary engines as well as the locomotives which left for the east from Shildon; they were not generally used to the west where the inclines were. By the terms of his contract he was to receive a salary of £150 per annum and the Company was to 'find a house, and pay for his house, rent and fire'. Four new houses, including a manager's house, were commissioned, but until they were ready, Hackworth moved into temporary accommodation, first in lodgings in Darlington, then at Brusselton in 1825-6 before finally setting up home in Shildon in 1826. The terrace he and his family lived in from 1826 has since been demolished. These were the first houses to be built in New Shildon along with the S&DR's Works. He moved into these larger premises in 1831 with his wife Jane and eight surviving children.

Hackworth's house was known as Soho House or Cottage and was the one on the right, although the family may have used both sides for a while. His extended family occupied the house adjacent and the smaller later cottages to the left. The S&DR black and white ceramic plate still in situ on the front of No. 3 Soho Cottage is one of many placed on terraces or individual houses owned by the S&DR in 1857 and in which its employees lived. These cottages were labelled by the S&DR G9.

After Hackworth's death in 1850 of typhus, Jane, his wife, stayed on at the house until she died two years later. The sale documents described the house as 'An excellent Dwelling House, containing on the Ground Floor Three Sitting Rooms, Kitchen, Dairy, and Store Pantries, over which are Seven Bed Rooms and a Lobby.' The S&DR bought the house and works from the Hackworth family in 1855, when William Bouch moved in (brother of Thomas Bouch who was disgraced after the collapse of his designed Tay Bridge), and it continued to accommodate each of the Works Managers at Shildon until about 1905 – including Ronald Smith, John Mackay Wright and Robert Pick (from Graham Tunbridge's account



Hackworth's House (photo: Dr Sarah Price)

on Timothy Hackworth dated 27th November 1945). The house has also been subdivided over the years, on one occasion being split into six. The house became derelict in the 1970s and was saved by Sedgefield District Council and opened as the Timothy Hackworth Museum in 1975, later becoming part of Locomotion.

In 1833 Hackworth renegotiated his contract and took over the workshops, starting his own engineering works with his brother Thomas and colleague Nicholas Downing; creating the trading name Hackworth & Downing. Although Timothy owned the works, it was his brother Thomas who managed them. When Downing left in 1837, the works became known as Thomas Hackworth & Co. until 1840, when Timothy Hackworth acquired more land and set about erecting workshops, forges and sheds, providing facilities for the repair and the building of engines (Hutchinson 2003, 114). These works, known as Soho Works, were located just behind his house and consisted of a foundry, machine shop, blacksmith's shop, coal-drying ovens and an adjacent gas works – all now gone.

During its operation, Soho Works produced a large number of influential locomotives such as the Lord Brougham, Shildon, Magnet, and Arrow. However, the Royal George was built at the nearby S&DR Works and Hackworth obtained permission to build his Sans Pareil there too. It was at his own works that Russia's first locomotive was built and it was Timothy's 16-year-old son John Wesley Hackworth (who also lived here) who travelled to Russia in September, 1836 to unpack the crates containing the locomotive built for the Tsar and the Tsarkoye-Selo Railway. Later in 1838 three 0-6-0 engines were commissioned by the Albion Mining Company and shipped to Nova Scotia, Canada. The company ran into financial difficulties in the 1840s, yet in 1852, after Hackworth had died and the business was about to be sold, Timothy Hackworth (junior) wrote to his sister:

'There is quite a mania for our patent engines. Mr Fletcher is wild about his. He tells nearly everybody he meets with that it is the best Engine in the world. I quite believe if we had a few more put down that we shall plenty of work and grow charmingly.'

1852

In 1855, five years after Timothy Hackworth's death, the S&DR bought out the Soho Works and the cottages and they became an extension of the main S&DR Works at New Shildon. Engines still continued to be built at the Shildon Works until 1866 when the North Eastern Railway (NER), which had amalgamated with the S&DR in 1863, moved production to the Darlington North Road Works. The Shildon Works continued to operate, but shifted their focus to the repair and construction of waggons, expanding in 1886 and again in 1899; although the former Soho Works remained largely unchanged.

8 Kilburn's Warehouse (DL4 1LX): This is the oldest surviving industrial building in New Shildon. It was built as an iron merchant's warehouse in 1826 by Messrs Kilburn of Bishop Auckland; sited here because of its proximity to the railway, for bringing in and transporting out merchandise. After the Shildon Tunnel opened in 1842, Kilburns may have had no need for the building and the S&DR negotiated buying it in order to build a Goods Shed. The sale never happened (the S&DR built the Goods Shed seen earlier instead), but it is possible that either Timothy Hackworth or the S&DR rented it from Kilburn's.



Kilburn's Warehouse. Photo: Ben Goundry

It was later bought by the NER after 1863 and used as a paint shop for locomotives. Underfloor heating, modelled on a Roman hypocaust, helped the paint dry, and two locomotives a week were painted here during the 1870s. In the twentieth century it was used as a practice room for the Shildon Works Silver Band and as a boxing gym.

On the left, take the path heading uphill towards the Black Boy Branch Line and the Tunnel Branch. In 1852 a reservoir was built above the Soho Works at the top of this hill (now the cricket pitch) by the S&DR and Timothy Hackworth (junior) wrote to his sister in Brussels where she was being educated:

'I have just had a walk on the spoil bank for a few minutes. It is becoming quite a place of attraction. The men are now getting their gardens put into order and besides the Company have commenced making a reservoir on the top of the hill just opposite the works and hope they do not mean to drown us out of the place. It is such a splendid afternoon. There are hundreds of people walking out in the fields round our City, quite reminds me of the London parks on a Sunday' (Hackworth Collection, NRM).

9 The Black Boy Branch and the Tunnel Branch Line: The Black Boy branch was opened in July 1827 to serve the Black Boy Collieries – a source of high-quality coal. The S&DR had originally planned to expand their network straight after the opening in 1825, but a stock market crash, plus the need to pay off the debts incurred in building the mainline, meant that the company was in no state to make significant capital investments until 1827.

The branch required an incline to haul waggons over the ridge of land between Shildon and Eldon and so a stationary engine was positioned at the summit. This engine wound rope onto a drum which then hauled waggons attached to the rope up the hill from Eldon. Gravity was used to allow the waggons to run down the other side to New Shildon. However, the engine was not ready on the opening day and so horses were used instead. Elsewhere the branch line was worked by horses, which rode in dandy carts while feeding on hay when going downhill. You will see a replica Dandy Cart later on this walk.

The branch line should have been made redundant in 1842 when the Shildon Tunnel was blasted underneath the ridge, but it survived into the twentieth century (probably the 1920s). One of the reasons for its survival was as a relief route should the tunnel become blocked. The tunnel branch line at this point is in a deep cutting which gets deeper further along as it approaches the Shildon Tunnel, also known as the Prince of Wales Tunnel.

1842

Taking you further....Shildon Tunnel

Getting coal from the south west Durham coalfields was difficult, because the waggons had to pass over substantial natural ridges that cut across the landscape; early locomotives could not manage such steep climbs. The Brusselton and Etherley Inclines had been Stephenson's technical solution to this problem in 1823-5, and the Black Boy Branch Incline was constructed in 1827 to haul waggons over the ridge between Eldon and Shildon. But as the demand for coal increased and the capacity to ship it out improved with the construction of Port Darlington (Middlesbrough), the slow rope-hauled inclines were causing bottlenecks. The solution was to build a tunnel to bypass the inclines.

Work on the construction of the Shildon Tunnel commenced in April 1839 and it was brought into use on the 19th April 1842. The tunnel was 1,300 yards long, and ran under the Black Boy Branch Line and the town of Shildon, and connected the S&DR Railway with the coal field around Bishop Auckland, continuing further to provide railway access to the minerals of the Crook basin and Weardale.

Irish navvies were brought in to Shildon to carry out much of the work, funded by the Peases, Backhouses, Kitchings and Meynells – all familiar S&DR backers. It cost £50,000 to dig. Seven shafts were sunk to a maximum depth of 36m, and in due course these shafts were made into ventilator shafts. Its ceiling was lined with seven million locally made bricks.

You will quickly spot a small three arched stone aqueduct through the fencing to your right. It was built in 1839-42 to carry a stream across the railway line cutting leading to the tunnel. Ground levels have clearly changed since then and the stream has run dry.



The aqueduct over the Tunnel Branch. Photo: Peter Bainbridge

Continue along this path until it joins a residential street with a grassy area – by now the line is in a very deep cutting on the right as it approaches Shildon Tunnel. The route of the earlier Black Boy branch is where the path runs now.



The ventilator shaft (on the right behind the tree) behind Windsor Terrace in 1962 adjacent to the footpath.

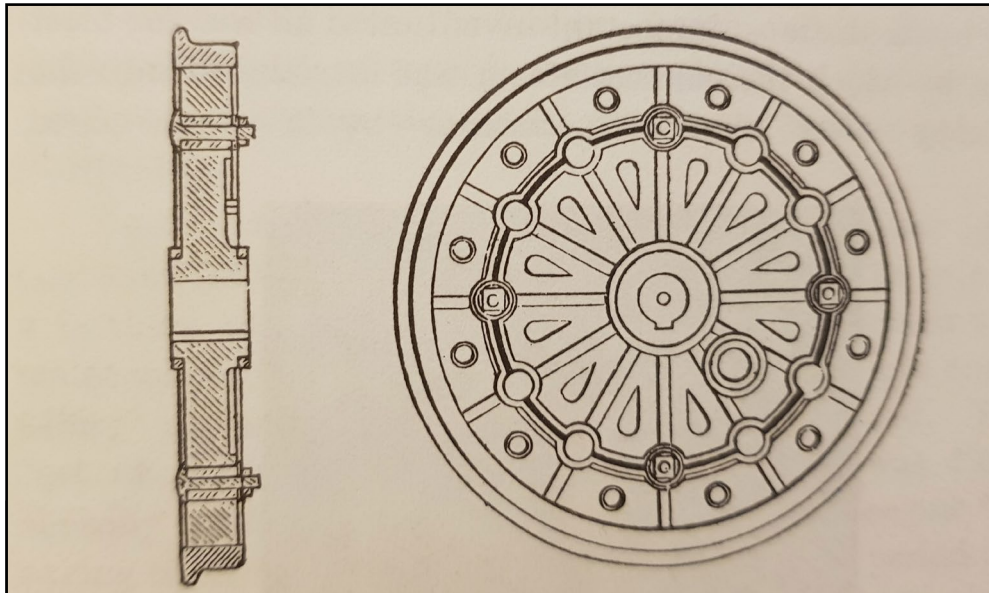
Continue alongside the line and, where the safety fencing stops, you might be able to see the Shildon Tunnel through the trees to your right. The tunnel passes under the path (route of the Black Boy branch) that you are following.

Continue along the path until it terminates at five bollards and, ahead, you will see a bus terminus and a roundabout. Just before the bollards on a grass verge on the left, there used to be a ventilation shaft that ensured a good airflow into the tunnel and allowed steam to escape. Such ventilators were positioned along the 1,300 yards (1188m) of tunnel at regular intervals. These ventilators consisted of cylindrical brick structures, ranging from the size of a shed to a small house; the last four were demolished as recently as 2008 by Network Rail (The Northern Echo 10.4.2008).

The Black Boy Branch Line ran along here and continued ahead up Cheapside (where the grass and trees are) while the Shildon Tunnel runs below your feet, heading slightly to the left of Cheapside up ahead. Indeed, it runs under the housing to the left, and former residents remember hearing the trains pass below their bedrooms! The junction was a crossing point for rail and road traffic and so was gated from the mid-19th century. Head towards the junction, at the bus terminus. The modern railings here reference Hackworth's plug wheel used on the early locomotives.

Taking you further....Hackworth's Plug Wheel

From the outset, there had been problems with the robustness of the wheels on locomotives; Locomotion No.1 itself broke a wheel within a month of the opening. Hackworth's new plug wheel was used on the Royal George, also in nearly every other engine on the S&DR and on other railways for many years (Young 1975, 159). This was a cast iron wheel with wrought iron 'tyres' shrunk on - Hackworth was the first to apply a wrought iron tyre to a wheel (ibid). It was made in two parts and held together by wooden plugs and iron wedges; the use of wood for the plugs reduced the weight but also helped to ensure that the castings were sound. Interestingly, the wheels were made in parts because there were no lathes in the Shildon workshops large enough to turn up the rims when fixed upon the axle (ibid).



Detail of Hackworth's Plug Wheel from Colburn's Locomotive Engineering

10 1 Cheapside, formerly the (New) King William (DL4 2HW): Cross over Church Street towards 1 Cheapside. This corner building was the King William Inn which opened in 1831, one year after William IV became King (Chapman 2005, 25). It would have provided refreshments for railwaymen using the Black Boy line as well as the growing population of Shildon. It was also used for auctions and for coroner's inquests after accidents on the railway or at the collieries. The word 'New' appears to have been added to mark the addition of bay windows, an ornate wooden door surround and a corner doorway which made the frontage more fashionable in later Victorian times. The inn originally had iron railings on top of a dwarf wall in front, but must have lost them to the war effort in the 1940s.

Further up on your right is a modern stone built house (no. 6) on the site of the Cross Keys Inn. This was where a banquet was held for the opening of the Shildon Tunnel in 1842 (Colin Turner pers comm).

Continue up Cheapside and just after the turning to Fulton Court, take the path between the hedging until you reach Rose Cottage.

1842

Taking you further (to the wild district of Crook)...Shildon Tunnel opens

At 10am on Monday, January 10, 1842, a ceremonial procession set off from the Cross Keys Inn, in Cheapside. It was led by a Union flag, with the resident engineer, Luke Wandless, directly behind. On his right was Henry Booth, the principal contractor, and on his left, Thomas Dennies, the principal brickmaker. Accompanied by banners and a brass band, they went in through the southern entrance. "The darkness was relieved by innumerable candles, and a platform had been erected at which a ceremony took place", said the North Eastern Railway (NER) Magazine, in 1913. Mr Dennies ceremonially presented the last brick. Mr Booth ceremonially sprinkled it with wine. Mr Wandless ceremonially cemented it into place with a suitably inscribed silver trowel - that very same trowel is now on display in nearby Locomotion.

The gentlemen then ceremonially named it the 'Prince of Wales Tunnel' after Prince Albert Edward, Queen Victoria's first son, who had been born two months earlier and, in 60 years time, would become King Edward VII. "Simultaneously cannon were fired in the open air, and the band struck up the favourite tune, Merrily Danced the Quaker's Wife", said the NER Magazine.

The procession wandered on through the darkness to the northern end of the tunnel. Then dinner was laid on for the workmen in six pubs in Shildon and 50 VIPs tucked in at the Cross Keys. They were joined by engineer-in-chief Thomas Storey and the company secretary, Thomas MacNay. He said "he hoped the time was not far distant when they would see locomotive engines and trains passing through the wild district about Crook where the people had never seen such a thing before" (Taken from an article by Chris Lloyd of the Northern Echo written 10.1.2007).

11 The Black Boy Engine House (site of) and Rose Cottages (former Engineman's Houses, G12) (DL4 1LL). This is a row of single storey cottages on the west side of the incline track. These are now pebble dashed and so their historic interest is obscured. However, 'Rose Cottage', on the left, still bears its S&DR plaque allocating the terrace number G12. Such ceramic plaques were added to all groups of S&DR residential properties in 1857. Historic maps dating to 1839 by Thomas Dixon show that originally there were two cottages here with front gardens (as there are today) and so, like the other inclines with two houses at the summit, it is likely that one was for the engineman and the other for the fireman/smith or assistant. The bay on the far end is a later addition.

The stationary steam engine that hauled the waggons up the Black Boy Incline was located north of the cottages. The engine hauled the laden waggons up the hill by rope from the Black Boy Collieries and then the waggons were allowed to run downhill towards Shildon, with a rather primitive form of brake that must have been hair-raising (Colin Turner pers comm).

Like the other winding engines at Brusselton and Etherley, the engine proved troublesome and had to be replaced with another, better one in 1835 designed by Timothy Hackworth (Young 1975, 274).

To the south of the cottages and the track, amongst the trees and bushes, there is a sloping stone wall with triangular coping stones – this



Rose Cottage – an S&DR house with S&DR plaque above the porch

is a typical S&DR boundary wall. There are also a number of architectural fragments lying amongst the vegetation on the other side, which may be some of the remains of later buildings shown on maps dating to 1855. The name of the engineman from 1828 has yet to be clarified, but in 1851, Nicholas Greener, the nephew of John Greener, engineman at Etherley Incline, lived at the S&DR property on Fulton Terrace (G11) and was listed as an engineman at that time. He and his family were living in one of the properties at Rose Cottage by 1861. When Nicholas died on the 29th May 1864, he was succeeded as engineman by his son John Greener, who moved back to the old family home on Fulton Terrace (G11) (Hackworth-Young 2019, 14).

TAKING YOU FURTHER: PLACE NAMES



North of the cottages is a pony yard area set out with jumps – this is the site of the reservoir that fed the steam engine house.

Head back down Cheapside – the grass area down the centre marks where the Black Boy branch line once ran. Towards the bottom of Cheapside there is a modern doctor's surgery. This was the location of another terrace of houses owned by the S&DR, but now demolished. These houses were given the number and plaque G11 by the S&DR. In 1851 Nicholas and Jane Greener were living in one of these buildings, then called South

Durham Place, now called Fulton Terrace. Nicholas had been recorded as an engineman in the 1841 census when he lodged at Toft Hill with brother in law Joseph and sister Jane Maddison, so presumably he remained an engineman when living here. (Nicholas was active with the Maddisons and his Greener uncles in the Methodist Movement. The Methodist records confirm he was Sunday School Superintendent of Etherley Chapel in 1840-41 and 1842-43. He married Jane Maddison on 22nd September, 1844 (Jane Hackworth-Young 2019, 13)).

By 1851, four of Nicholas and Jane's six children had been born, the eldest two being named after his uncles, Thomas and John (enginemen at the S&DR's Etherley Incline). By the middle of 1854, the family had grown to six children, five boys and one girl (Hackworth-Young 2019, 13).

Whether it was a growing family or a change of job, the Greener family had moved to Rose Cottage, next to the stationary engine, by 1861 (see entry for Rose Cottage). On the census of 1871 Nicholas' son John had taken over as 'Railway Stationary Engineman' and he was back living in South Durham Place (G11) with his mother and brother, George. He died the following year at the age of 26 and is buried in the churchyard of St John's, Shildon. His mother, Jane, died in Shildon in 1887 (ibid). It is interesting that the S&DR was still employing an engineman for a stationary engine in 1871 decades after having tried unsuccessfully to sell the engine and long after the incline was largely redundant.

Another S&DR building (G10), which accommodated railway workers who monitored the movement of rail traffic on the line, was located nearer the junction of Church Street and Fulton Terrace. It is not certain which building this was, and none of the surviving historic buildings here have an S&DR plaque. The building on the corner is rendered with modern replacement windows so it is not possible to identify any associations with possible S&DR buildings here.



G11 Fulton Terrace in April 1968. This was housing for S&DR workers operating the Black Boy branch and incline, now destroyed and replaced with the doctor's surgery © R Goad with permission

12 The Chaldron Waggon: At the foot of Cheapside there is a replica chaldron waggon on the corner of Church Street. Such waggons were used on the railway to transport coal to the mainline and from there to settlements along the line or to Stockton for export (and from 1830 to the new S&DR port at Middlesbrough). It is aligned over the route of the Black Boy Branch which brought high quality coal to the railway.



Image: S&DR Chaldron waggon

Turn right on to Church Street. When you get to the raised pavement with railings, look out for the inscriptions on the pavement of job titles that used to exist in the Shildon Waggon Works in the 19th century. Continue until you reach Millennium Square with its statue of Timothy Hackworth. The walls here, which also form the perimeter to the churchyard, include designs reflecting Shildon's railway heritage. Just beyond Millennium Square is St. John's Church on the left.

13 St John's Church (DL4 1DL): This is the burial place of Timothy Hackworth, his wife Jane and second son Timothy (whose letters we have seen to his sister in Brussels) and a number of other notable railway people.

Hackworth's grave with its classical urn on top can be seen on the left just through the gates. Sadly, the graves have been 'tidied up' in the past, but we know that some familiar Hackworth family members, S&DR officials and engineers are buried here including Kitchings, Grahams, Downings and Greeners.



Image: Timothy Hackworth's grave

Head out of the churchyard and turn left along Church Street past the war memorial which was unveiled on 13 October 1923. The grand red brick and stone building on the corner was the Midland Bank and dates to 1899. The architects were Brierley and Rutherford of York and the building was originally used for the York and County Bank. Turn left down Central Parade.

14 Hackworth Park (DL4 1DL) Half way down Central Parade, turn right into the Hackworth Park. Ahead you will see an ornate drinking fountain. The drum has eight roundels, between dragon's heads, depicting the Royal George locomotive designed by Timothy Hackworth. One roundel, to the west, is inscribed: PRESENTED TO THE INHABITANTS OF SHILDON BY THE MEMBERS OF THE OLD SHILDON WORKMEN'S CLUB. NOVEMBER 1914.

Head left along the perimeter path, past the Rest House of 1926 and on the left, you will see a statue of Timothy Hackworth. The original statue was unveiled as part of the S&DR's centenary celebrations in December 1925 (Holmes 1975, 43), but it was vandalised and the bust transferred to Locomotion. This replacement statue dates to 2003 and was unveiled by Timothy's great great grandson, Ulick Loring (Jane Hackworth-Young pers comm).

Head right along the perimeter path and look through the park fencing on the opposite side of the road where there is a row of low white bungalows. These North Eastern Railway Cottages of 1929 are testament to Shildon's more recent railway heritage.

Continue down towards the park gates at St. John's Road, but don't leave the park (but if you wish to shorten the walk, you can follow the signs from here back to Locomotion and Timothy Hackworth's house). Instead head right along the path heading towards the playground.

Image: Statue of Timothy Hackworth in Hackworth Park



Over on your right in a large grassy area, you will see a replica Dandy Cart. This is an open backed waggon in which a horse could rest and travel downhill, before hauling waggons back up the incline. These would have been seen regularly travelling down the Black Boy Incline on Cheapside with a horse inside munching on hay.

At the playground hedge, turn left towards the tennis courts and at the bollards turn right along the footpath which runs along the route of the Surtees Branch Line.

15 The Surtees Line: This private railway line was named after the main landowning family in Shildon, the Surtees, and was designed to reach Shildon Lodge Colliery, located near the Grey Horse inn. The 1821 Act of Parliament allowed private individuals to construct branch lines to the main line at their own expense, providing they were within five miles of the line (1821 Act para LXXXVI). The land to build the line was acquired from Josiah Smithson in 1831 by the Surtees family. This private line was also used for passenger traffic and linked up with the main S&DR line at New Shildon.

Ann Addamson is referred to in a notebook by S&DR engineer John Graham in 1833. It was her job to lead coal laden waggons down the Surtees line to New Shildon on behalf of the Surtees family and this was done by horse. In 1833, the S&DR company instructed all users that horse drawn traffic was no longer acceptable, and locomotives were to be used instead. Ann resisted this move and was supported by Mr Surtees, much to the annoyance of the railway company (GRA 1/3 Book 2 p7). Ann was Daniel Adamson's widow and he had run the Grey Horse Inn and the passenger service between Shildon and Darlington until his death in 1832. Ann took over the job as innkeeper until her death aged 79 in 1860 (during which time the inn changed its name to the Grey Mare!)

The Surtees Branch path heads out to Harker Street and on to Main Street where there is a stone bus shelter. Turn left here and on your left at a mini roundabout you will see a stone building with arches. This is Daniel Adamson's Coach House and the Grey Horse Inn nearby.

16 Daniel Adamson's Coach House and the Grey Horse Inn (DL4 1JJ): The Adamson family lived in Old Shildon at Shildon Lodge before the railway was built. When John Dixon recounted his time surveying the proposed line in 1822 with George Stephenson, he said that there was nothing in New Shildon and that the nearest house was Dan Adamson's. Dan Adamson was the innkeeper at the Grey Horse Inn.

In 1827, Old Dan Adamson took over the running of a horse drawn passenger coach service, and so his job as landlord at the Grey Horse Inn was taken over by his son William, by 1828 (White's Trade Directory of 1828).

The coach house was reputedly built by Dan Adamson in 1831 to house his coach the Perseverance. As the coach was in use from 1827, it is not clear where he kept it prior to building the coach house. Perhaps the coach house is older?

Latterly, the Grey Horse Inn was on the opposite side of the road and there was indeed a large building there by 1839 (see tithe map) which could have had a courtyard suitable for stabling and for housing a coach. However, the house on the right hand side of the coach house is older than the coach house. Could this have been the original Grey Horse Inn? The Surtees line ran immediately to the left of the coach house building as you face it, on what is now Main Street. The two archways have been blocked at a later date; they presumably had doors in place when Adamson stored his coach here.



Then and now...

LEFT The Coach House (left) & older house (the original Grey Horse?, right)
RIGHT An undated photo of the Coach House with the Surtees Line running alongside, complete with waggons

1826

Taking you further....passenger coaches in Shildon

From 1st April 1826, Richard Pickersgill, the Darlington booking agent, took over the S&DR's coach 'Experiment,' with seating for 12 passengers on top, and a contract to run it at £200 a year. Later that month, a new coach 'Express' started work between Darlington and Stockton, and the more cumbersome 'Experiment' was relegated to the Darlington-Shildon run. With increasing coach traffic, the S&DR reduced its tolls in October 1826 on the Darlington-Brusselton section from 3d to 2d and three months later – January 1827 – to 1d per mile. This also coincided with the S&DR attempting to open public houses at Stockton, Heighington and Darlington for the benefit of passengers and railway staff.

In November 1827, Dan Adamson's 'Perseverance' took over from the original 'Experiment' on the Shildon-Darlington section, and so in December 1827, the first passenger coach was reduced to the role of a shed, used by bank riders at the foot of Brusselton bank, where it remained for a few years until accidentally destroyed by fire when two enginemen spent the night inside (Tomlinson 1987, 129 and Holmes 1975, 20).

The passenger coach service was advertised locally and in 1828 was listed as follows:

'A Railway Coach, from the Grey Horse, Shildon Lodge, every mng. (Sunday excepted); departs from New Shildon 7 o'clock mng., arr. at Darlington 1/2 past 8, and at Stockton at 10; leaves Stockton at 3 aft.; arr. at Shildon at 1/2 past 6 evng. in the winter; - In summer departs from Shildon 1/2 an hour earlier, and arr. 1/2 and hour later.' (P&W's Trade Directory 1828, vol II (intro 14 July))

An account of how many journeys were made by old Dan Adamson's coach service survives for the year 1st October 1831 to 1st October 1832 (in fact Daniel died in February 1832 and the service was taken over by his wife Ann). At that time, he ran a coach between Shildon and Darlington, providing 12 journeys, carrying about 74 passengers

a week. That worked out at an average of six passengers per journey (Jeans 1975, 85). The coach was horse drawn (one horse) along the railway, and seating was provided inside the coach for six, and outside on the roof for twenty, with fares being 1 ½ d per mile or 1d a mile respectively (ibid). The approach to charging fares by the mile originated with the transportation of goods, and was quickly applied to passengers. Adamson would have taken out a licence with the S&DR to run the coach service and would have paid duties to the government, but there was little accountability to the S&DR on the number of passengers travelling. It is therefore possible that the accounts under played how many passengers were carried, in order to incur lower charges to the S&DR and the government Treasury.

**TAKING YOU FURTHER:
DAN ADAMSON JR**



Old Shildon in 1839 (tithe map DDR/EA/TTH/1/211). Plot 45 on the left belonged to the landowner Robert Surtees but was rented by Ann Adamson, Daniel Adamson's widow. Daniel provided the early passenger service. The curved line running down the centre is the Surtees Line. The building on the corner of the Surtees Line and what is now Byerley Road (Stock Lane in 1839) is Daniel Adamson's Coach House with the older building adjacent and what became public house opposite.

From Daniel Adamson's Coach House, before you head down Byerley Road, take a look around the corner on the opposite side of the road, at an NER waggon – another piece of railway heritage in this important railway town. Again, the modern railings are a reminder of Hackworth's invention of the plugwheel.

Head down Byerley Road and after 470m. there is a large school building with attractive bicycle sheds on the left at no. 161 Byerley Road.

17 Timothy Hackworth School (DL4 1HN): This school was built in response to the ever-increasing population of New Shildon and was originally called the 'Shildon and East Thicky New Shildon Council Schools'. The building was designed by Mr R. Holt of Liverpool to accommodate 1,100 children and the total cost to build the school was £21,467, which included the land, buildings, furnishings and equipment. The opening ceremony was performed by Councillor M. Watson JP on Saturday, 12 February 1910 at 3.30pm, which was followed by a free afternoon tea for invited guests. The school officially opened two days later; its first head teacher being Ethel M. Robinson.

In 1925, as part of the centenary celebrations of the S&DR, the school was renamed the Shildon and East Thicky Timothy Hackworth Council School in honour of the late rail pioneer and 'father of New Shildon, Mr Timothy Hackworth'. The school went through a number of changes as the population continued to grow and the name was shortened to the Timothy Hackworth School.

Further down Byerley Road, the red brick building with a stone porch on the left is the Friends' Quaker Meeting House.

18 Friends' Quaker Meeting House (DL4 1HN): This Meeting House replaced an earlier one which had been built in 1862 on Cross Street. Quaker families were hugely influential in the growth of the railways, particularly in Darlington where the Pease family were the major financiers and motivators, as were the Backhouses. Many of the key officers of the railway were Quakers. The Pease family also had some property and mining interests around Shildon.

Beyond this, where there is now housing, the area was once criss-crossed with railway sidings joining the S&DR line to the S&DR works, which included engine houses and furnaces.

Continue down Byerley Road and note Chapel Street on your left (DL4 1HL). Chapel Street was the location of The Globe Inn. This was where Timothy Hackworth set up the first meetings of the Railwaymen's Institute in 1833 and in doing so created the earliest Railway Institute in the world. You will find out more about this towards the end of the walk when you visit the present day Railway Institute on Redworth Road.

Continue towards the junction at the bottom of Byerley Road and you will see a rendered building on the corner. Until recently, this was The Masons Arms and the roads around it were railway lines known as the Masons Arms Crossings.

19 The Masons Arms (now Cape to Cairo) (DL4 1HH): This was an important point in the 1825 journey....

In preparation for the opening ceremony of the Stockton & Darlington Railway on the 27th September 1825, Locomotion No.1, initially called Active, had been transported from Newcastle where it was made, by horse-drawn waggon and put on the rails at Heighington from where it was brought to the Masons Arms crossing in Shildon (Corkin, 1977). The railway as conceived by George Stephenson and George Overton started near Witton Park Colliery, but at 8 o'clock the procession reached Brusselton where waggons filled with sacks of coal and flour (and quite a few passengers) were hauled up by the stationary engine located at Brusselton – a journey of eight minutes. These were then lowered down to the east, a journey of five minutes, and coupled to Locomotion waiting at this spot. Hundreds of onlookers lined the track to witness the spectacle and see George Stephenson at the controls of his steam engine pulling the waggons and passenger coach Experiment, filled with local dignitaries and investors. Three hundred tickets in all were issued for the journey but over 700 people were thought to have pushed, scrambled and elbowed their way on board for the momentous journey (only 553 passengers by the time the train got to Darlington according to the Zion Herald of

1825

November 1825). There was some debate and confusion about the order of the procession, and contemporary reports varied, but it (probably) consisted of:

- The Company's Locomotive Engine No. 1
- The Engine's Tender, with water and coals
- Five waggons, laden with coal
- One waggon, laden with flour
- One waggon, containing surveyors, engineers etc.
- 'The Experiment', containing the Committee and other Proprietors totalling between 16-18 people
- Six waggons, with workmen and others standing
- Fourteen waggons, with workmen and others
- Six waggons laden with coal



The former Masons Arms (since renamed Cape to Cairo) and site of the Masons Arms Crossing

The Durham County Advertiser later reported:

The scene, on the moving of the engine, sets description at defiance. Astonishment was not confined to the human species, for the beasts of the field and the fowls of the air seemed to view with wonder and awe the machine, which now moved onward at a rate of 10 or 12 mph with a weight of not less than 80 tons attached to it (1st October 1825).

The steam-hauled public train began its historic journey here by letting off steam, resulting in a scattering of the remaining on-lookers, who feared an explosion. Timothy Hackworth shouted 'All ready!' and the procession left and headed towards Stockton with a blue - scarfed man positioned between each waggon, ready to apply the brakes whenever required (Heavisides 1912, 61). It would reach Darlington nine miles away, after two hours, at 12 o'clock following an eventful journey requiring three stops lasting 55 minutes (Heavisides 1912, 65).

In the absence of a railway station (no such thing had been invented in 1825), tickets to use the track, or purchase a ticket to ride, could be bought at the Masons Arms. The S&DR Company had taken over the available rooms there to be used as a railway station booking office and a directors' committee room. A waiting room was built on the opposite side of the railway, and the first railway clock was placed in the wall of a house near the end of Redworth Road. This became the new station, and opened in 1833. The coach house near Dan Adamson's Grey Horse Inn, which had been in use since 1831, was utilised as a goods station (Bainbridge 1933, 4). In addition to the inn, the Masons Arms also consisted of stabling, a brewery, granary, byre and yard, much of which still survives. There was also a 'landing place for goods' near here (Durham County Advertiser 18th December 1835).

The closing of the Masons Arms Station in 1842, when the new station was built near the Shildon Tunnel, freed up the waiting room and so a reading room and library were installed there for the Mechanics' Institute. The room was furnished with a large cupboard for the library, two deal tables which were purchased and a chandelier was presented and hung in the centre of the reading room. Hat pegs were also put



The railway semaphore signal opposite the former Masons Arms. The S&DR Works were located just beyond it.

up. W. Kitching, of the ironworks in Darlington, donated a fender and fire irons. T. Hines presented roller blind fittings and W. Bouch and R. Corner presented blind rollers and blinds (ibid). A number of these names had strong management and engineering links with the S&DR. The new institute opened in April 1843.

20 The Shildon Works: **'With engines built in Shildon shed. These engines gave the town this bread.'**

(From 'Father of the Railways' by Thomas Ronald Spedding, appearing in Corkin 1977, 2)

With the Masons Arms behind you, look across the road and you will see the exit from the S&DR Works, still guarded by a semaphore signal. This is much later than 1825, but in time this crossing point became very busy and so there was frequent rail traffic. Consequently, the road was gated, the gates not being removed until 1985 after the Works closed. You can see another signal on the nearby roundabout – this has been relocated here as a reminder of Shildon's railway heritage.

The Shildon Works were originally located down the path on the opposite side of the road.

The works initially consisted of a single engine shed with space for two locomotives and another narrow shed for joiners and blacksmiths. Its role was to maintain the locomotives for which it employed twenty men by 1825 and fifty by 1827. Boilers, cylinders and wheels were made by outside contractors and apart from the 'Royal George' of 1827, it was not until 1829 that the first complete locomotive (0-6-0 No.8 'Victory') was built at Shildon (Holmes 1975, 11). It became the headquarters of the S&DR locomotive department and in 1855 absorbed Hackworth's Soho Works after Hackworth's death (see stop 7/8).

The opening of Darlington's Engineering Works on North Road in 1863 resulted in Shildon's works concentrating on waggons rather than engines – these waggons were exported all over the world. By the 1960s Shildon's waggon works employed nearly 3,000 people, but the closure in 1984 resulted in the loss of 2,500 jobs.

If you wish to walk down to the site of the Shildon Works, you will see some older buildings – but none dating to the 1820s. This route will also take you to Brusselton and the Brusselton Incline (covered in S&DR Walk No.2).

Note the reset stone sleepers opposite the Masons Arms, next to this path. These were rescued from this location in the 1980s and were returned to the site by the Brusselton Incline Group (part of the Friends of the S&DR). New sample rails were installed to show the different kinds of early rail and chair used. If you do explore down here, you will need to return to the Masons Arms to finish your journey.

Otherwise head towards the roundabout with the signal post in the centre, and take the first left along Redworth Road for the final part of your journey. On the right hand side opposite one of the carparks, note the two sets of grand iron gates between brick pillars; these have come all the way from Euston Station in London.

21 Euston Station Gates: These gates were originally made for Euston Station in London in 1838, but were donated to the people of Shildon by the National Railway Museum and re-erected here in 2002 by Sedgefield Borough Council to commemorate Shildon's contribution to the railways.



Euston Station Gates in the snow. Photo: Trevor Horner

22 Railway Institute, 78 Redworth Road DL4 2JJ: Further along Redworth Road on the right is Shildon's Railway Institute. Although the building is a relative youngster, dating to 1911-13, the Institute itself is the earliest Railway Institute in the world.

On noticing that most of his workers could neither read nor write, Timothy Hackworth, the first Locomotive Superintendent of the Stockton & Darlington Railway, set about establishing a Society for the Promotion of Useful Knowledge. He held a meeting on the 28th November 1833 in the cellar of the Globe Inn on Chapel Street with others that included John Glass, John Graham, Thomas MacNay, John Pickering and J Stabler. The purpose of this new organisation was to better the local workforce by creating a membership society with a library, which would be made available on a subscription basis. This would be promoted to the residents of New Shildon. Timothy Hackworth was elected to be its first President. Thomas MacNay, Secretary of the Stockton & Darlington Railway Company would be its Secretary.



Railway Institute (photo: Dave Reynolds)

The society was patronised by Joseph Pease, who was not only an influential figure in the management of the S&DR but also a sitting Member of Parliament, Francis Mewburn, who served as solicitor for the railway company, Josiah Smithson and Colonel Henry Stobart, a committee member on the Stockton & Darlington Railway and proprietor of Etherley Colliery respectively; four men of some significant means.

Hackworth initially placed the Institute, at first little more than a shelf of books, within the shared space of the Wesleyan Schoolroom on Chapel Street; it then moved to the Masons Arms when a room was freed up when some of the railway ticketing functions of the rooms moved to Shildon's new station in 1842. This new reading room for the sole use of the Institute was officially opened in April 1843. By this time the organisation was referring to itself as a Mechanics' Institute and was providing lectures, mostly on mechanical and civil engineering and science subjects; the room in the Masons Arms wasn't big enough for large lectures, so they also rented space from the British School on Station Street (point 5 on your journey). The Institute then moved opposite the British School on Cross Street in 1860.

Building works commenced on the new Institute in 1911, but it took until 10th February 1913 before it was fully opened; possibly because of industrial unrest in the railway industry. Vincent Raven opened the proceedings and a silver-gilt key to the building was presented as a memento to Arthur Pease, son of the older Arthur Pease who had been the MP for Darlington, by Mr R W Worsdell, manager of the works.

The building was designed by the North Eastern Railway Company's Chief Architect, William Bell of York and built by a Darlington builder named Earnshaw. On opening, it consisted of a main hall with a seating capacity for 486 people. The ground floor hosted the Institute's library collection which at that time consisted of four thousand five hundred books. There was also a reading room and a magazine room, which was used as a ladies' reading room. On the first floor there was a games room, a billiard room with four tables and a meeting room for the committee. Additionally, there was a bathing room with three slipper baths for the use of members. The building was adorned throughout with engravings, photographs, portraits and relics of the early days of steam. A second floor built into the roof space concealed accommodation for the caretaker (information from Dave Reynolds of the Railway Institute).

Today the Institute has a library, events are held here, but, of more interest to anyone finishing a walk around Shildon, it also has a pub which the public are welcome to use.

Your exploration of Shildon's railway heritage is now over and you can return to Locomotion. The most direct way is via the car park opposite the Euston Gates back the way you came. Just before you get to the car park, you can walk down either side of Pears Terrace (DL4 2JA) and join a path at metal railings. Walk down the ramp to the right and you are back on the route of the S&DR. On your left behind some bushes just before you rejoin Locomotion, you might notice a small archway in the wall, partially replaced in brick. This is a refuge for plate workers.

You are now at the west end of Locomotion near the Goods Shed and Sunday School. You can return to the main car park and the engine sheds along the path which runs in front of the coal drops. From the railway station, just after the coal drops, you can catch a train to Heighington, Darlington, Eaglescliffe or Thornaby, near the end of the 1825 S&DR.

The impact of that day, 27th September 1825, was to have a profound effect on this area. There had been just a small village called Shildon to the north, but New Shildon sprang up around the Masons Arms in response to the railway, and transformed the landscape. In 1821 the hamlet of Shildon had a population of just 115 people, mostly employed in agriculture but with some in coal mining and the textile industry. However, within the next fifty years, the population was to rise to 2,631 by the census of 1841 and 11,759 by the end of the century (Hutchinson 2003, 8). At this time the Age of Steam was at its peak, and Shildon, for a time, was at its heart. In 1854 a journalist from the Darlington and Stockton Times observed the changes when he took 'a run among the Auckland collieries' starting in a horse drawn coach at Shildon.

Going at a quiet pace there is time to observe the country which, between this place and West Auckland, is essentially a coal district. On every hand are to be seen steam engines, puffing and sobbing as they bring to the surface the results of the labour of those who are toiling below" (Northern Echo 03.08.2005; courtesy of Chris Lloyd)

This was a radical change from the more rural landscape which had existed before September 1825:

"I have known Shildon for fifty years when there was not a house of any sort at New Shildon, much less a Mechanics Institute. When I surveyed the lines of the projected railway in 1821, the site of this New Shildon Works was a wet, swampy field – a likely place to find a snipe, or a flock of peewits. Dan Adamson's was the nearest house. A part of Old Shildon existed, but 'Chapel Row', a row of miner's houses, was unbuilt or unthought of."

(John Dixon, Company Engineer in the Bishop Auckland Herald, 3.9.1863)

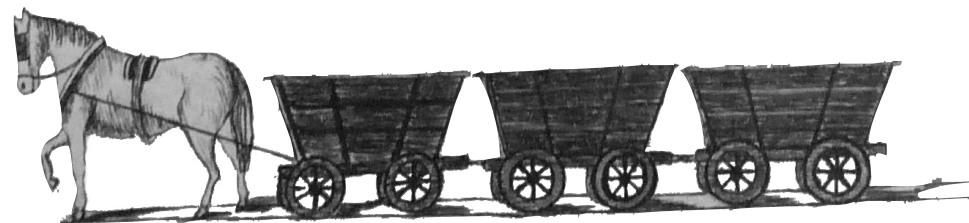
The next walk in the series goes from Shildon to Heighington eastwards or from the Masons Arms westwards to West Auckland.

This leaflet has been compiled with information from:

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You can find the other walk booklets at www.sdr1825.org.uk

Image: A sketch by Timothy Hackworth dated 1827 in his notebook now at the NRM HACK 1/3/2/1)



STOCKTON & DARLINGTON RAILWAY | 1825-1830

INTRODUCTION

Map showing the extent of the S&DR by 1830. It also went on to expand to Barnard Castle, Tebay, Redcar, Saltburn and Weardale. It was amalgamated with the North Eastern Railway in 1863.

KEY

1825 Main line and the route of the opening day on 27th of September 1825.

- 1825 Main line and the route of the opening day on 27th of September 1825.
- S&DR Branch Lines
- S&DR line still in use
- Map Locations

MAP



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- 1 Etherley Incline
- 2 Gaunless Bridge
- 3 Brusselton Incline
- 4 Locomotion Railway Museum, Shildon
- 5 Heighington Station
- 6 Darlington Railway Museum
- 7 Skerne Bridge
- 8 Fighting Cocks
- 9 Preston Park Museum & Grounds
- 10 Stockton

COVER IMAGE: Hackworth's House | Credit: Dr Sarah Price

3.8 miles

6.1 kilometres

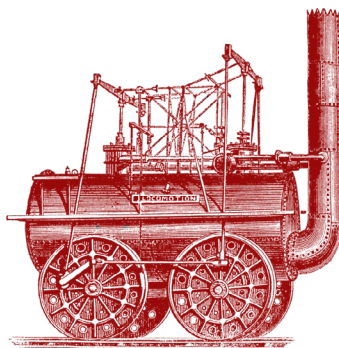
1.15 hours

@ 3mph walking pace



Made possible with

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