



Haltwhistle Burn

A Walk Through Time

10 Million Years of
Earth's History
300 Years of
Man's Ingenuity

A gentle walk up Haltwhistle Burn
exploring the geology and history of this
fascinating area.

Haltwhistle Burn

This peaceful wooded valley in its dramatic rocky gorge has a secret to reveal, for it was once the industrial centre of Haltwhistle producing woollen fabric, coal, stone, lime and ceramics.

The mineral riches of The Burn tell the story of Northumberland 300 million years ago.

When you walk The Burn you are walking through 10 million years of earth's history and 300 years of man's ingenuity.

The Walk

Terrain: well-kept footpaths, very gentle gradient

Distance: Haltwhistle Town to Military road and return along same route **2.5miles, 4.25km**

or link to Haltwhistle Ring 3 The Lovers Way

(<http://www.haltwhistle.net/haltwhistlewalk03.pdf>)

Moderate difficulty 6 miles, 9.7 km

How to Get There

A69 from Newcastle. Turn right into Haltwhistle and take 1st right into the town. Follow the road as it bears left and continue to Market Square and Post Office. * Take first right into Aesica Road beside the Opticians. Turn right at the T junction and left into Willia Rd. The car park is 100M further on

A69 from Carlisle. Turn left into Haltwhistle and follow the road to the Station. At the Station junction, turn left and **follow Main Street as it bends to the right. Take the first left into Aesica Road. Turn right at the T junction and left into Willia Rd. The car park is 100M further on

There is no charge for parking

By Bus : Alight at the Market square and follow from *

By Train: cross the road to the Railway Inn and follow from **

**Part of Haltwhistle Partnership's Haltwhistle
Burn Project funded by:**



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Northumberland National Park

Northumberland County Council

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1

Starting at the car park in Willia Road walk down the metalled road to Haltwhistle Burn. The building across The Burn is the site of the old pipe works where, for about 30 years until the early 1960s, claystones formed from the ancient muds of the Carboniferous period * were used to make salt-glazed pipes. Tubs of clay were pulled downstream by ponies along the level track from the drift mine to be crushed, mixed and then forced through dies to form pipes. These were then dried in the coal-heated drying room which can still be seen beside the footpath. Bricks were made in an adjoining building. Two kilns, heated by a row of fire grates along each side, were used to fire the pipes, the exhaust gases being drawn off through flues linked to the square chimney still standing.

During the Carboniferous period, mud built up in the river deltas which covered the area and, over time, this new ground became colonised by tropical forests. When these were inundated, the organic matter was preserved by the anaerobic conditions, first as peat and then as coal. The fossil soils, called *seatearth* by miners, often show the imprint of the roots which grew through them. Some of these sediments are particularly rich in silica and are ideal for making bricks which will withstand high temperatures. This material, known as fireclay, was used in the brickworks of the Burn to produce furnace and chimney linings.

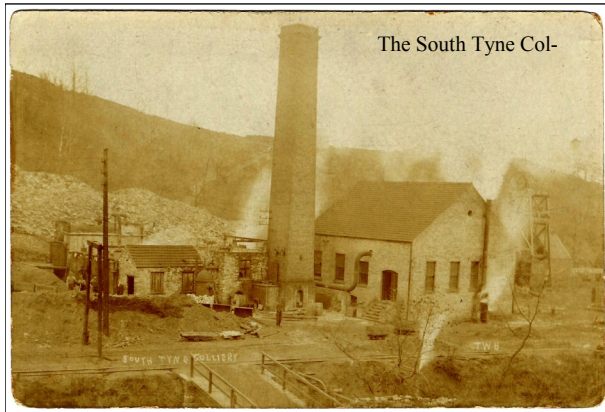
Before crossing the bridge, take a look at the bricks lining the west side of the burn (LHS facing up-stream). You will notice that each one is very slightly curved. These bricks were originally made to line a chimney but have been re-used to protect the banks of the burn from the turbulent flood waters which regularly sweep down from the fells.

* 345-290 million years ago

2

Cross the Burn on the road bridge.

The square chimney in front of you was originally part of the workings of the South Tyne Colliery which occupied the site until 1931.



Sunk in the early years of the 20th century, the 500ft shaft reached the Little Limestone coal seam. At its peak, daily output reached 600 tons, providing employment for 600 men and boys. The closure of the pit marked the end of an industry which had been carried out in various parts of The Burn for at least 300 years.

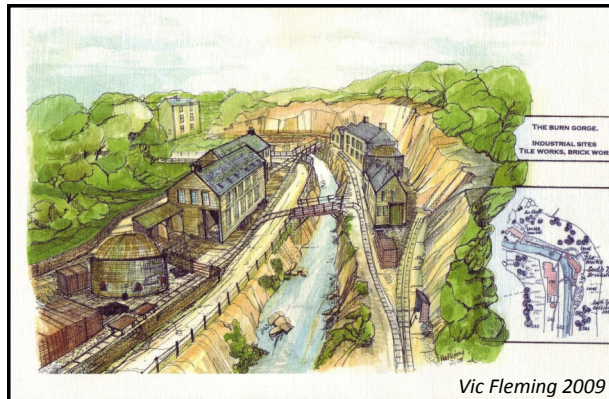
Once on the east bank, turn left and pass through the wooden kiss-gate. Look at the land sloping steeply up on your right. Although now re-colonised by woodland, a careful inspection will reveal that, far from being natural, these slopes are the remains of spoil heaps generated during the extraction of coal by the South Tyne Coal company.

Continue upstream until, just before a sharp bend, a runnel of cloudy water runs beside the path on the right. This water, laced with alum, is issuing from a small outlet beside a concrete tunnel. This is the entrance to the old drift mine of the South Tyne Coal Company which produced coal from the 1850s until the early 20th century.

3

Coal from this drift was transported in tubs by a continuous rope system along a rolleyway which ran along what is now the footpath, across the road at Town Foot on a high-level viaduct and down to the drops on the low-lying lands between the town and the Tyne. Here coal and other minerals from The Burn were loaded onto railway trucks before being transported along the Carlisle-Newcastle main line.

The maps of 1860 show extensive buildings on both sides of the burn at this point.



Artist's impression of The South Tyne Brickworks 1860

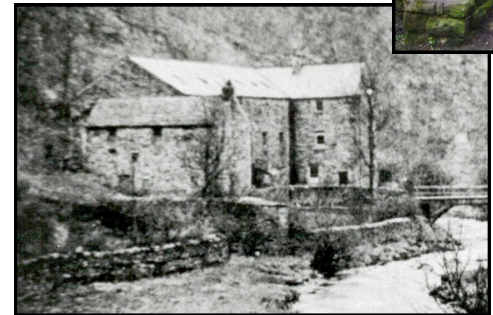
Brick and tile works, which used clay extracted from the drift, stretched along each bank linked by bridges, the remains of which can still be found jutting from the stone-lined walls of the burn. Today the bricks can be seen in many of the buildings of Haltwhistle constructed in the 1860s.



4

Continue upstream for about 100 metres

The stone wall on your left is all that remains of Low Mill, a water-driven woollen mill. Built in 1762 by two Quakers who wished to improve the lot of the local poor, it flourished until the end of the 1860s after which it served to house many families until its demolition in the 1930s.



Above
Low Mill
Today
Left
Low Mill
around
1910

At the bend in The Burn just after the two white cottages on the west bank, the stream bed changes character. Instead of tumbling over broken bedrock and loose pebbles, the water rushes over a single, sloping sheet of sandstone. Why does the sandstone slope? The answer lies in the geological events which shaped Northumberland throughout the Carboniferous and early Permian periods. The band of land from the Solway to the Tyne subsided along the fault line which runs along the northern edge of the Pennines, whilst being buoyed up in the north by the dome of the Cheviot massif. The result is a dip in the strata to the south which can be as much as 20 degrees. This can be seen most dramatically in the striking pattern of ridges and slopes which characterise the fells around the Roman Wall but also in the sandstones which form the bed of the Burn.

5

Continue walking until the road on the west bank veers away up a hill. An old ford crosses The Burn at this point. **Pause and turn round.** To the left of the path was a second woollen mill. Known as High Mill or High Factory, it drew water from farther up the burn to power its wheel. **Cross the footbridge onto the west bank.** The line of the mill race can still be seen running along the east bank about 7 metres above the stream bed.



High Mill

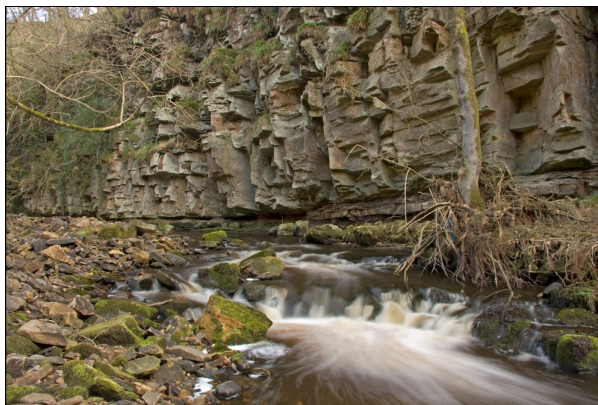
Continue along the west bank. To your left is the Lees Hall Quarry from where sandstone for building was extracted. Quarrying was an important part of the economy of the Burn over many generations, with sites all up the burn in operation at different periods.

The Leeshall Sandstone Quarry



6

Even from the pathway it is possible to see, between two thick bands of sandstone, the darker stripe of the Lees Hall Quarry coal seam lying on its bed of sandy seatearth.



As the burn gorge narrows, pause and look up at the sandstone cliffs which tower above. Every particle of this stone was once part of a mountain perhaps hundreds of miles away. Weathered out by wind and frost and carried away by the waters of vast braided rivers, they were dropped here over thousands of years, building up into the huge deposit which presses down upon the layers of mud and coal below.

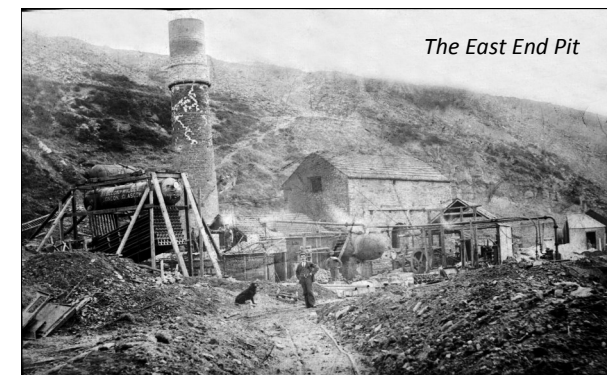
Here the gorge is too narrow for any industry. The footpath runs along the track-bed of the narrow-gauge railway which carried road-stone from Cawfields Quarry, on the Whinstone crags under the Roman wall, down to the main line at Town Foot. The narrow gauge closed in 1938 although the quarry continued in operation until 1952, with the stone being transported by road.



"Tanky" the Cawfields Quarry Engine

7

Continue along the path and over a bridge. About 100metres from the bridge end, look out for a thin limestone slab beside the path. The casts of animal trails are distinctly visible on the upper surface, almost as clear as when they were made under water, 300 million years ago.



The East End Pit

100m farther on stands the remains of the earliest drift mine. The chimney, known as the Fell Chimney was part of the workings of the East End Pit which was mined before the opening of the South Tyne pit in the 1840s. Coal was removed from the drift by a steam-driven endless-rope hauler. Part of the engine house can still be seen and the holes in the brickwork where the hawser ran show clear signs of wear. Look through them and you can still discern the position of the drift entrance. It is said that the boilers were brought along the Military Road by horse-drawn cart and then rolled down the bank from the road before being hauled into place by horses.

After work here ceased, the drift was used to ventilate the workings of the Tyne Fireclay Company.



The Fell Chimney today

8

Just beyond the chimney, where the new fence crosses The Burn, a grassy slope leads up to the right to the base of a pine covered sandstone cliff. Here the sandstone has been weathered by the wind to reveal the layers of sand, each one with a slightly different hardness, grain size or colour, reflecting the changing conditions of its deposition in the rivers of 300 million years ago.



Ripples from river bed 300 million years ago

Continue up-stream 25m. Look out for a large rectangular slab which has fallen from the cliff above. Look up at this point into a corner of the cliff face where an overhanging slab supports the twisted roots of a tree. The underside clearly shows the marks formed when grains of sand were transported as ripples over a river bed.

9

A little farther upstream the remains of two sets of lime kilns can be found. On the far bank are the kilns which were in use during the 1830s to produce small amounts of lime for field improvement and building.



On the near bank are the remains of the dismantled kilns of the South Tyne Colliery Co., commercial lime burners trading during the 1850s. On the far bank the outside of the kiln is visible whilst on the near bank it is possible to see the internal structure.

Continue round the bend to the final bridge. On your right is an accessible bed of shale which has yielded brachiopods, corals, bryozoa and fragments of crinoids.



Limestone and shale, remnants of a shallow tropical sea that covered the area 300 million years ago

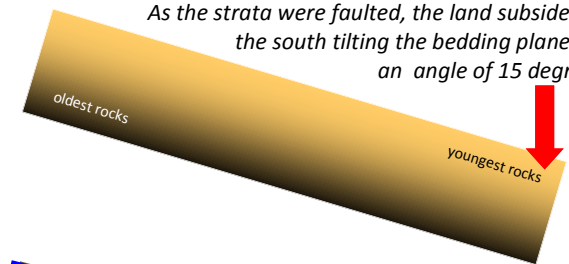
10

Continue onto the bridge. To your right is an exposure of limestone and calcareous shale. This is the Great Limestone, formed when shallow tropical seas covered the area and the remains of millions of sea creatures were deposited on the sea bed interspersed with layers of mud. These deposits are the oldest rocks in the Burn Gorge—surprising since they are visible higher up the burn than younger rocks. What's going on?

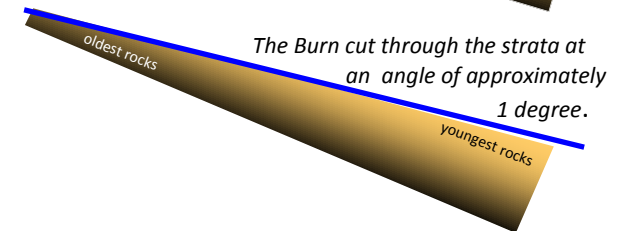
The oldest rocks were deposited first, overlain by younger rocks.



As the strata were faulted, the land subsided in the south tilting the bedding planes to an angle of 15 degrees.



The Burn cut through the strata at an angle of approximately 1 degree.



So, as you walk up-stream you are passing through older and older rocks.

To walk up the burn truly is to walk back through about 10 million years of Earth's History and to discover how generations of the people of Haltwhistle have used riches of the rocks to bring prosperity to their town.

Continue to the Military road and Haltwhistle Rings Route 3 (<http://www.haltwhistle.net/haltwhistlewalk03.pdf>) or return to Haltwhistle.