Alston is in the North Pennines Area of Outstanding Natural Beauty (AONB) and UNESCO Global Geopark.

What is a UNESCO Global Geopark?

The North Pennines AONB is a UNESCO Global Geopark. Geoparks are places with outstanding geology and landscape, where there are strong local efforts to make the most of Earth heritage through interpretation, education, conservation and tourism. To find out more go to www.visitgeoparks.org

Find out more about North Pennine geology

This leaflet is one of a series of geological trails and publications for the North Pennines. To discover the others and find out more about our geological heritage, visit www.northpennines.org.uk

This is an original publication by the North Pennines AONB Partnership, with thanks given to members of the AONB Partnership's Geopark Advisory Group for their expertise and input.

The North Pennines Area of Outstanding Natural Beauty (AONB) and UNESCO Global Geopark is one of England's finest landscapes. Explore flower-rich hay meadows, wide open moorlands, intimate woods, tumbling rivers and dramatic waterfalls; discover world-class geology and mining heritage; experience truly dark night skies; and encounter special wildlife.

A 1.5km (1 mile) walk, highlighting geological and historical points of interest, through the Cumbrian town of Alston.

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Alston Geotrail

Stories in the stones

NORTH PENNINES
Area of Outstanding Natural Beauty

United Nations Educational, Scientific and Cultural Organization

North Pennines UNESCO Global Geopark

Welcome to a special landscape...

...shaped by millions of years of natural processes and thousands of years of human activity.

This trail leads you through the streets of this beautiful Cumbrian town pointing out several sites of geological and historical interest. The trail sticks to the roads and pavements within Alston and encourages you to take a close look at what surrounds you, from the paving beneath your feet to large buildings and surrounding hills.

Walk length:
1.5km (1 mile).

Start/finish:
Alston Car Park:
Chapel Terrace,
Alston
CA9 3SW.

Grid reference:
NY 721 462

Facilities:
Alston has public toilets, tourist information and numerous shops, cafes and pubs.

Terrain: This trail uses pavements and roads within Alston. There are some steps, slopes and uneven surfaces.

Public transport: Buses run to Alston from Hexham, Haltwhistle and Carlisle.

For timetable information call Traveline on 0871 200 2233 (www.traveline.info)

Useful maps:
Ordnance Survey
1:25 000 Explorer OL31 North Pennines Teesdale and Weardale

British Geological Survey
1:50 000 Geological Sheet 25 Alston

The History of Alston

Alston is situated in the North Pennines Area of Outstanding Natural Beauty and UNESCO Global Geopark. There has been a settlement here since pre-Roman times. Alston has buildings dating back to the 17th century, but its main expansion came in the mid-18th century when larger-scale mining developed.

The landscape has been heavily influenced by centuries of mining lead ore. The area has also been mined for zinc and barium minerals, coal and fluorspar. Other industries included quarrying of both sandstone and limestone, all alongside farming.

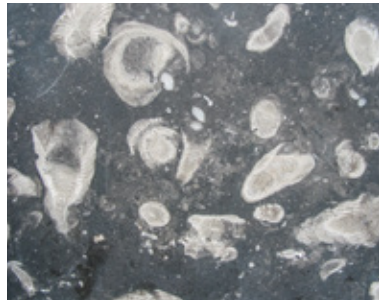
Falling prices of lead from the 1870s triggered the withdrawal of the major mining operator, the London Lead Company in 1882. Some mining continued into the 20th century, but had largely ceased by 1950. Today Alston has a much smaller population than its peak in the 1840s, but retains a strong identity in its historic buildings, small businesses and active community.

Rocks to look out for:

Local Sandstone: There has long been good local knowledge about which sandstones are best for different building purposes, all largely Carboniferous age (formed 360-300 million years ago). Most buildings used stone from local quarries for their 'random rubble'-style walls, were floored with local sandstone flags, and were roofed with sandstone slabs from a specific sandstone which readily split into thin layers.

Penrith Sandstone: This formed as desert sand dunes around 290 million years ago in the area we know today as the Eden Valley. It is distinguishable by its round grains, stuck together by quartz that appears to sparkle in sunlight. Penrith Sandstones are commonly used as building stone and for paving.

St Bees Sandstone: This dull brownish-red sandstone is fine-grained, tightly layered and formed around 200 million years ago. Unlike Penrith Sandstone, the cement between the grains is mainly clay so it lacks the sparkle. It is quarried on the west coast of Cumbria, where it got its name, but can also be found in the Eden Valley, where it makes up a large proportion of the bedrock.



Limestone: This rock formed in shallow seas, often including the remains of creatures that once lived on the sea floor. Frosterley Marble is a limestone (not in fact a marble) that takes its name from where it was quarried, around the village of Frosterley in Weardale. The white markings are the beautifully preserved fossils of corals that thrived on the sea floor over 300 million years ago.

Granite: This rock formed from magma cooling and crystallising within the Earth's crust. Shap Granite, a speckled rock with large pink crystals of feldspar, has been used for decorative purposes here in Alston. It was quarried on the eastern side of the Lake District around Shap Fell and crystallised around 390 million years ago.

1 St Paul's Methodist Chapel

Religion played a big part in the culture of mining communities in the North Pennines. This Wesleyan Methodist chapel was built in 1864 and closed in 1990. It uses two contrasting sandstones – the red St Bees and the older, more local buff coloured sandstone – to make eye-catching patterns.

2 Quaker Meeting House

The Quaker Meeting House opened in 1732. It is built out of local sandstone – even the roof is sandstone slabs. Most buildings in the area would have used slabs like these at one time, made possible by the fine layers in the sandstone. The London Lead Company was a Quaker business and played an important part in local mining history and social provision.

Look out for the sandstones used in the buildings beside the road. They have lovely examples of cross bedding. These are layers in the rock that are at an angle to the major layers in the sequence. They form in flowing water such as a river.

3 The Bank

This building was once the town's bank and, as you would expect, used some high-quality building materials. The buff-coloured sandstone has unknown origins but almost certainly formed in the Carboniferous Period, 360-300 million years ago. This contrasts with the salmon-pink Penrith Sandstone (see overleaf).

4 Stone Setts

Part of Alston's main high street is paved with stone setts. Setts are vertically cut sandstone flags, which provide good grip in winter conditions. The rough sandstone comes from nearby Flinty Fell Quarry above Nenthead village.

As you walk to the next stop watch your feet - you may step on an ancient trail. The large, locally sourced sandstone flags contain fossilised trails of worms or molluscs that would have crawled across the sand 320 million years ago.

5 Market Place

Alston claims to be the highest market town in England, sitting at 1000 feet above sea level. At the centre is the Market Cross, with its pillars and roof made of locally-sourced sandstone. This is a good place to get up close and see the thousands of tiny grains. These glassy-looking quartz grains are bound together by a natural cement, usually of clay minerals. The clear layering of these grains helps to determine that the sandstone was formed on the beds of ancient rivers or seas.

Polished stone plaques, made from Shap Granite, commemorate the record of re-builds. The cross erected in 1883 was knocked down by a lorry in 1968. That replacement was then knocked down by another lorry in 1980 and rebuilt in 1981, so watch out for passing vehicles!

6 The Butts

The houses in this area are built from a range of rocks which suggest they were constructed quickly. Some are angular and some are rounded, probably taken from the river. These buildings fit so well with the landscape because they are built of very local materials. Most of the building stones are buff sandstone quarried locally. There are also dull grey blocks of limestone which is rarely used as a building stone in this area, more often quarried for soil improvement, mortar or road stone.

From the memorial, continue along the path to the road and turn right. The building beside you is Alston Town Hall. Cross the road outside the Town Hall and follow it uphill to St Augustine's Church.

Follow the higgledy-piggledy street round to a cut that takes you down some steps back onto a main road. Turn left and follow the road up, crossing the T junction. To your left is the Walton Memorial. Turn left to take the path to the top to get a better view.

The church is the end of the trail but please continue to explore the welcoming local businesses and beautiful surrounding area.

Take the lane in the corner of the market place behind the market cross and follow the road around the cluster of houses. Take the second left turn.

The fire station building on the right used to be Alston's grammar school. Can you read the roman numerals on the plaque? Keep going downhill and on your left, you will see the Quaker Meeting House.

Continue down the road and stop in the Market Place.

Look out for a grand disused building on your left: The Barclays Bank.

Turn left out of the car park and follow the road downhill. Carefully cross the road and turn right following the road downhill into the village centre. Soon you will pass a large currently unused building on the left – this is the old Methodist Chapel.

7 The Walton Memorial

Jacob Walton is commemorated here. He was a prominent and well-respected mine owner and manager in the 19th century. The memorial is made of pale pink, probably Scottish, granite.

Some terraced houses across from the memorial have sandstone flagged roofs like we've seen before. Purple/grey Welsh slate roofs became more common as railways spread across Britain. The dull green slates come from the Lake District. Also take in the views to the north of Alston. Look down the road towards the hillside of Ayle Common - an excellent example of the terraced shapes of the North Pennine hills. These are produced by the differences in erosion rates between the alternating layers of rock that formed in changing environments in the Carboniferous Period, 360-300 million years ago.

8 St Augustine's Church

Records show that a church has existed here since 1145 AD. This building was constructed in 1869, with high-quality, expensive stonework. Unlike other buildings in Alston the church is built from sandstone blocks of even size and colour, all from the same source; probably one of the larger quarries further down the Tyne Valley. The roof is Welsh slate.

Notice the differences in rocks used in the gravestones. The older sandstone ones are so weathered that they are nearly impossible to read. More modern gravestones use granite and are more legible.

Either side of the main door are polished pillars of Shap Granite. If the church is open, look out for more pillars of granite and of Frosterley Marble inside. Smaller, polished samples of Frosterley Marble are included in the white limestone pulpit and font. The plain white fine-grained limestone is unlike any found in the North Pennines and probably came from the south of England. Italian marble, formed from naturally altered and re-crystallised limestone, can be seen in memorials on the wall.