

# Eight Hundred Years of speculation



WEB VERSION

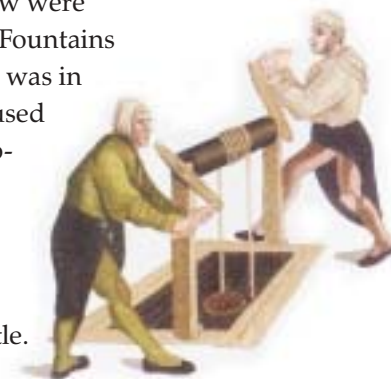
## The Bewerley Industrial Heritage Trail



### Mining for lead

There has been an organised lead mining industry around Greenhow for at least eight hundred years. Findings of three Roman ingots of lead close by suggest that mining could have taken place nearly a thousand years earlier.

As early as 1151 the land and mineral rights around Greenhow were granted to Byland and Fountains monastic houses. Lead was in great demand - it was used for the roofs of new monasteries and castles. It was also used much further afield - in 1363 Fountains sent 168 pigs of lead to Windsor Castle.



In Medieval times mining was organised in meers - an area of ground that followed the vein. Miners were expected to confine all of their activities within their allotted area. But with lead in such demand there were disputes and disagreements about ownership were inevitable - rumour has it that this even led to a riot in Greenhow!

Horse gin



As the demand for lead increased, the industry became more organised in its pursuit of profit. Mining companies began to lease larger tracts of land, replacing the small scale workings of previous centuries. Techniques shifted from simple hand mining methods to more mechanised processes. These were made easier as winding systems and horsepower were introduced.



The Cockhill workings - how they might have looked in the 1880s

With its vast reserves of lead ore, Cockhill became one of the key lead mining areas of the Yorkshire Dales. Washing and crushing facilities, blacksmiths' shops and smelting works were built to process the ore. Although many of the buildings have been lost there are still clues in the surrounding landscape to help us piece together the area's industrial past.



Underground,  
Gillfield level c.1935

As mines became bigger and deeper drainage and a faster method of bringing the ore to the surface were needed. Long, horizontal tunnels called 'levels' were drilled and blasted with gunpowder to meet the workings. Cock-hill and Gilfield levels can still be seen as you walk around the trail.

## Dressing the ore

The process of separating the lead ore from attached rock was called 'dressing'. Breaking the ore into smaller more regular pieces was the first stage. In early times this was done manually, but as techniques became more mechanised cast iron rollers powered by large waterwheels took over, crushing the ore to a uniform size. The crushed material was placed in a mesh bottomed tray and plunged up and down repeatedly in a water filled wooden tank - a hotching tub. The lighter material settled on the top and was scraped off leaving the heavier, lead rich ore, beneath.



Water powered  
ore crusher

## Ore hearth smelting.

Ore hearth smelting replaced bale smelting in the late 16th century. Lead ore was mixed with fuel - usually peat and coal, on the workstone in the hearth. To increase heat, air was blown in using bellows powered by a waterwheel. When the temperature reached about 750°C molten lead would flow down a shallow groove in the workstone into the sumpter pot. It could then be ladled or tapped into moulds to form ingots or 'pigs'.



Since medieval times lead has  
been mined and smelted in the  
hills around Pateley Bridge.

## Lime smelting

There are a number of areas along the route where there is evidence of a lime burning industry. Before the 1850s limestone extraction and burning was carried out on a local level supplying field lime and mortar for the houses near the kiln. The construction of the railway to Pateley Bridge gave a boost

to the lime business and several larger commercial kilns were set up. The remains of the largest of these can still be seen at Toft Gate. Lime was conveyed from here by cart to the rail terminus in Pateley Bridge.



Coldstones Quarry  
viewing platform

## Quarrying for stone

The valley of Moorhouses is littered with evidence of early quarrying with the landscape scarred by shallow scoops where stone has been extracted. As early as 1700, and possibly before, limestone was quarried on Coldstones Hill. By 1897 the quarry employed 9 men with a working face of 10 to 12 metres - limestone is still being extracted today and you can watch the active quarry from the safety of the viewing platform. Slate and sandstone have also been quarried in the valley - Middle Tongue Quarry was an extensive and profitable operation. At its height in 1906 it employed 72 men and had two steam powered cranes in operation.

Toft Gate lime kiln





For hundreds of years man has exploited the rich

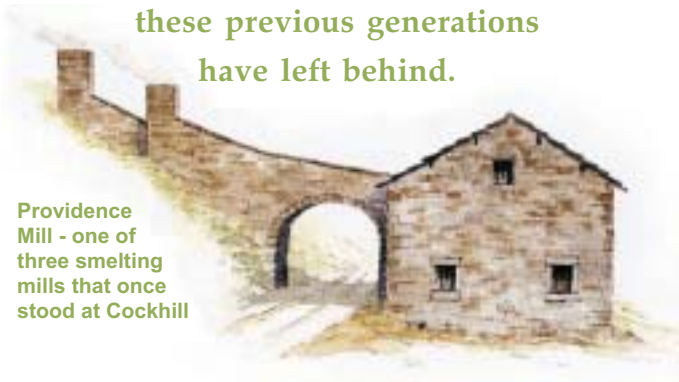
mineral deposits of the landscape - lead, lime and stone.

At Moorhouses look out for the quarries that extracted limestone, slate and sandstone for hundreds of years. At Toft Gate discover how the Victorians produced lime. Move forward two centuries and look out over the workings of a modern day limestone quarry at the Coldstones Quarry viewing platform. At Cockhill, learn about man's quest for lead.



Though many of the industries have gone, interpretation panels along the trail will help you make sense of the imprints

these previous generations have left behind.



Providence Mill - one of three smelting mills that once stood at Cockhill

## Trail Information

The Bewerley Industrial Heritage Trail is 9 miles long with some steep ascents. The route follows Public Rights of Way with a small section of permissive path. For a shorter alternative (5 miles), start from the Toft Gate car park. The trail is clearly signed - just follow the waymarkers along the route.

We strongly suggest that you take an OS map (Explorer 298) and appropriate outdoor clothing.

Please stay on the path. The trail goes past old mining works - they can be very dangerous.

The Bewerley Industrial Heritage Trail was initiated by Bewerley Parish Council and supported by Nidderdale AONB



Supported by The Countryside Agency and English Heritage through the DEFRA Aggregates Levy Sustainability Fund



Nidderdale Area of Outstanding Natural Beauty is one of 41 landscapes in England and Wales recognised by Government for their special qualities.



The aims of the AONB designation are to:

- conserve and enhance natural beauty
- encourage social and economic development which contributes to the AONB's natural beauty
- improve the management of recreation and tourism

To contact Nidderdale AONB: telephone (01423) 712950 [www.nidderdaleaonb.org.uk](http://www.nidderdaleaonb.org.uk)

## Nidderdale Museum

Find out more about the heritage of Nidderdale at the Nidderdale Museum in Pateley Bridge. A wide range of lively collections illustrate all aspects of Dales life including transport, industry, agriculture, domestic life and costume. There is a small admission charge.



For more details and opening times tel: 01423 711225 Nidderdale Museum, King Street, Pateley Bridge.

# The Bewerley Industrial Heritage Trail

The Bewerley Industrial Heritage Trail will take you on a journey through an area steeped in history from Roman times to modern day.

Jack Ass level entrance at Cockhill

