

HOLIDAY GEOLOGY

Millom Rock Park

Millom is a small town situated on the Duddon Estuary in the southwest corner of Cumbria. It was built as a company town in the 1860s to serve the Hodbarrow iron ore mines. Initially ore was shipped to South Wales but later a steel works was built adjacent to the mines.

The ore was regarded as the richest source of hematite in the country; much of it was in the form of kidney ore with an iron content in excess of 60%, and samples from Hodbarrow can be seen in museum collections around the world. The orebodies in Carboniferous limestone extended out beyond the coastline, and ingress of the sea was a perennial problem for the mines, finally leading to closure of both the mines and the steel mill in 1968. At their peak more than 1000 men and boys worked underground and dividends were paid to the shareholders fortnightly. Over 25M tons of haematite were extracted during the mines 100-year life.

Since then economic activity around Millom has been much reduced, though quarrying for roadstone does provide useful economic activity. The flooded mine site is now split between the Hodbarrow RSPB bird reserve and a water-skiing centre, while the steel works site is now a nature reserve. Both sites are rich in orchids and are breeding sites for Natterjack toads.

A kilometre northeast from Millom, a fault brings Ordovician Borrowdale Volcanic rocks against the Carboniferous Limestone. These are lavas, tuffs and sills of the Millom Park Formation described by the BGS as "lapilli tuffs, mostly massive ignimbrites, some bedded ash fall tuffs with sills and irregular intrusions of basalt with andesite and rhyolite members". All have been metamorphosed, and so yield high-grade roadstone. The quarry is operated by Aggregate Industries Ltd who, together with partners, have created Millom Rock Park on a site overlooking the Ghyll Scaur quarry.

The view into the quarry identifying the andesites that were intruded into the wet, unconsolidated pyroclastic sediments.



Cut face of a block of peperite breccia, with fragments of glassy andesite within a sediment matrix.

The Rock Park includes interpretation of the quarry workings and its products, together with a set of huge quarried boulders representing every rock type in Cumbria, each having its own interpretive notice board. A particularly helpful board pictures the quarry working face, showing the location of the three rocks exposed but are not easy to distinguish otherwise: the andesitic intrusions, coarse tuff and pyroclastic breccia, and peperite breccia; the latter was formed when lava flowed into wet sediments. Another board explains how after each day's blast an excavator is used to separate the three rock types; after milling and grading these are mixed to create the right aggregate for the final usage, which is mainly for surfacing motorways. All the interpretive notices for the quarry and its working are available at www.millomrockpark.org.uk.

This seldom-visited part of Cumbria is well worth a call. The Rock Park at SD176832 is not signed until its car park is reached. From Millom take the A5093 towards Barrow and Kendal, pass the quarry entrance, continue up to The Hill and turn left (signed School Ellis). The car park is shortly on the left. From the opposite direction, look for the sign to the right to School Ellis in the hamlet of The Hill.

Alan Filmer

