DISCOVER THE GEOLOGY OF THE WESTMORLAND DALES

LGS 3_052

Knott Local Geological Site Old quarries full of fossils from tropical seas

What you can see here

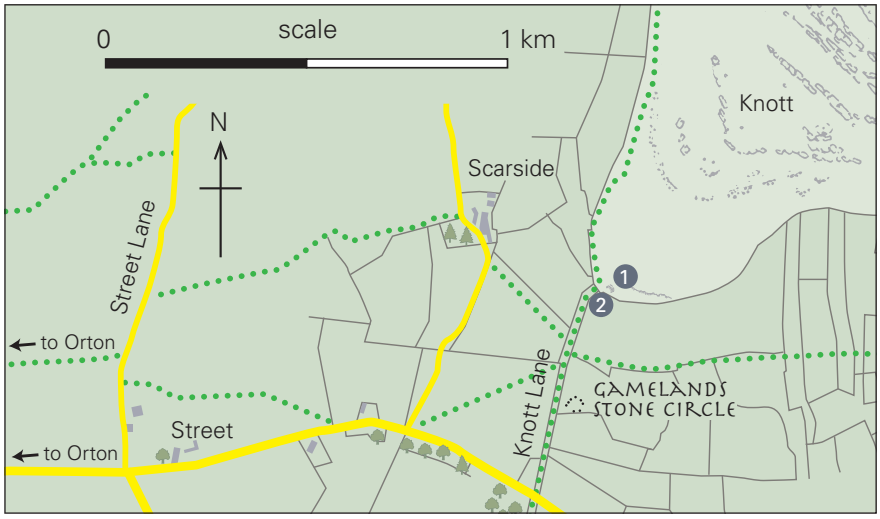
- Lovely limestone country with superb views to the Howgills
- Small disused quarries in Ashfell Limestone Formation
- Fossil sea creatures from Carboniferous tropical seas

Limited parking on roadsides. Please park considerately (do not block gateways) or enjoy a walk from Orton

On Access Land and close to public rights of way. On the route of the circular Orton Scar and Knott Geotrail

On the lower slopes of Knott hill two small disused quarries display excellent exposures of the **Ashfell Limestone Formation**. The limestone quarried here would have been burnt in the nearby limekiln to make lime, or used for walling. This limestone is part of the **Great Scar Limestone Group**, which formed in the early **Carboniferous Period** when northern England was covered in shallow **tropical seas**. Limy, shelly mud on the sea floor eventually hardened into layers (**beds**) of limestone. Some beds contain sets of fine sloping layers known as **cross-bedding**. This feature forms when flowing water causes ripples or small dunes to move over a sea floor, leaving traces of previous positions.

The upper quarry in particular contains superb **fossils**, especially corals and brachiopods, which stand proud of the rock. The limestone also contains layers and nodules of dark grey **chert**. Made of silica (the same composition as quartz), chert may derive from the remains of silica-secreting organisms such as sponges, although exactly how and why it formed is unknown.



Public right of way

Access Land

1 Two small limestone quarries

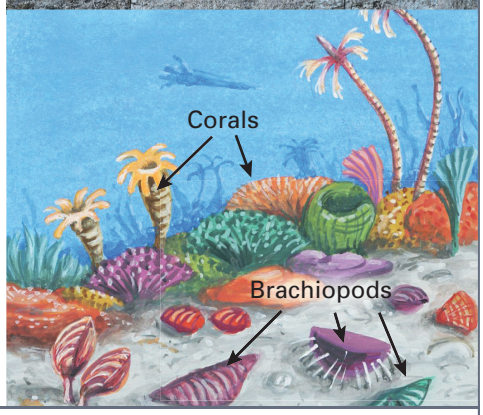
2 Limekiln

Images

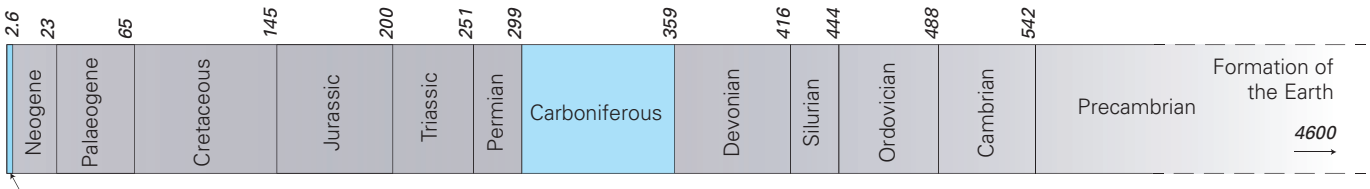
Beds of limestone in the lower quarry near the limekiln

Fossils in upper quarry, including brachiopod shells and corals

A Carboniferous sea full of animals now preserved as fossils



Millions of years ago



Quaternary *(a series of glaciations and warmer intervals, up to present day)*

In this geological timeline the coloured intervals indicate periods represented by rocks and features at this site

WESTMORLAND DALES

Cumbria GeoConservation

The Wildlife Trusts Cumbria Wildlife Trust

HERITAGE FUND