
41 Mickleden

Theme: Climate and landscape change

Location

41 Mickleden and Langdale Comb — moraines. A 3 kilometre level walk from Old Dungeon Ghyll to the confluence of Stake Gill and Mickleden Beck [NY 261 073].

Description

Most Lake District valleys have little hillocks on their floors and sides. Mickleden in upper Langdale is typical. These humps and bumps are moraines.

Glaciers scrape off and collect a lot of stuff. When they stagnate, retreat and melt they leave that debris behind. It's called moraine. The debris can be everything from boulders, to sand and silt and clay. There are lots of types of moraines, usually classified by their shape and position. When these are compared to active glaciers today, geologists can work out how and when they formed. In the valley, near where Stake Gill and Rossett Gill meet, there are many ridge-like mounds of sand, gravel and boulders, some of which have been cut through by the streams. While these can look disorganised, detailed air photography plus pollen and cosmic ray dating techniques can make sense of them. We believe these are lateral and terminal moraines built up by meltwater at the front and sides of a retreating glacier. There is more hummocky ground in Langdale Combe higher up, where the Cumbria Way follows Stake Pass. These are moraines too, but altered by erosion and slumping down the steep slopes since the ice left.

There have been recent studies on both sets of moraines; all part of wider research to understand exactly how the last Ice Age that covered Britain behaved. There is much debate about these features but geologists agree that ice was covering the high plateaus and valleys of Cumbria during a brief very cold episode around 12,000 years ago. If we want to better understand how climate change will affect our planet in the future, this research is more than academic. A famous geologist, James Hutton, once said 'the present is the key to the past' but the past can also be the key to the future.

Photographs

(Photo 41-1) 41 Glacial moraines at Mickleden in the Langdale valley.

(Photo 41-2) 41 Mickleden.



(Photo 41-1) Glacial moraines at Mickleden in the Langdale valley.



(Photo 41-2) Mickleden.