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## 22 Threlkeld

**Theme:** Volcanoes and molten rock

### Location

22 Threlkeld — granite and also Clough Head landslip. Visit the Threlkeld Quarry and Mining Museum, or climb Threlkeld Knott [NY 329 230].

### Description

The village of Threlkeld lies in the shadow of Blencathra. To the south of it, at Threlkeld Knotts, there is a granite named after it. How it got to be there is an enigma.

Geologists call Threlkeld granite a microgranite because its mineral crystals are small. It was once molten magma intruded into older mudstones and volcanic rocks and it's part of a larger, 1500 square kilometre, granite body (called a batholith) found deep beneath the Lake District. Using the length of time radioactive uranium takes to decay into lead, scientists have dated the granite at around 450 million years old making it Ordovician. There is more to this story. Geologists believed that the shapes of Threlkeld Knotts, and Clough Head behind it, could be explained by intrusion of the magma, faulting and erosion, especially by glaciers. But recently other Earth scientists have argued that a catastrophic landslide; a huge 'rock slope failure' related to the last ice sheet 20,000 years ago, is the reason why it looks like it does today. Looking south from the A66 you can appreciate why the big landslide concept is tempting, the dramatic scar on the face of Clough Head is plain to see.

Quarrymen in the late 19<sup>th</sup> century didn't debate such niceties, they recognised the microgranite as a rock that was hard but wasn't the best as a polished stone. So they crushed it and used it for rail ballast and construction instead. The quarry closed in 1982 and it is now the home of Threlkeld Quarry and Mining Museum. Visit and learn about the equipment and the people who worked there, and about a time when mining and quarrying put bread on the table for many communities in Cumbria.

### Photographs

(Photo 22-1) 22 View of Threlkeld Knotts and Clough Head from the north.

(Photo 22-2) 22 Threlkeld.



*(Photo 22-1) View of Threlkeld Knotts and Clough Head from the north.*



*(Photo 22-2) Threlkeld.*