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## 14 Armathwaite

**Theme:** Volcanoes and molten rock

### Location

14 Armathwaite — Palaeogene dyke. Park near Armathwaite bridge and take the footpath south along the east bank of the river for 800 metres [NY 504 454].

### Description

The youngest bit of solid rock in this book stretches northwest–southeast for many tens of kilometres across the whole county but it is never more than 35 metres wide. It is called the Cleveland-Armathwaite Dyke.

The best place to get up close to it is where the dyke cuts across the River Eden south of Armathwaite; here the relative hardness of the rock, in contrast to the softer red sandstones either side of it, creates a natural weir. That hardness also means you can also see it in the landscape. It is the foundation of the chain of long, low hills you see between the M6 and the Pennine fells as you drive between Penrith and Carlisle. The rock is igneous, meaning it was once molten; it is a fine-grained 'andesite' intruded into much older rocks around 60 million years ago. It is one of several near-vertical blades of rock that are thought to originate from beneath the Isle of Mull in western Scotland. The theory is that a single pulse of molten magma spread laterally at a velocity of up to 18 kilometres per hour so injection of the whole dyke would have taken less than five days.

A belt of wildlife-rich native woodland hugs the east bank of the River Eden on the edge of Coombe Wood. This ancient wood was planted-up with conifer trees in the 1950s but today a presumption in favour of native broadleaved species is benefitting wildlife.

### Photographs

(Photo 14-1) 14 The dyke creating a natural weir south of Armathwaite.

(Photo 14-2) 14 Armathwaite.



*(Photo 14-1) The dyke creating a natural weir south of Armathwaite.*



*(Photo 14-2) Armathwaite.*