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## 21 Shap Granite

**Theme:** Volcanoes and molten rock

### Location

21 Shap — granite and its erratics. Shap Granite quarry is a working site. You can see it from the A6 or hike across the granite on the fells around it [NY 559 085].

### Description

What's the best-known rock in Cumbria? Shap Granite!

It's pretty distinctive with large pink crystals and you don't have to visit the quarry to see it because it's been used as a decorative building stone across the country. The rock is made of different minerals: feldspar (pink and white), quartz and biotite. Around 405 million years ago, in the Devonian Period, it was molten magma about eight kilometres underground. It cooled slowly giving time for those large crystals to grow. Since then, millions of years uplift and erosion have brought the granite to the surface. In the last 2.6 million years ice sheets have picked up blocks and boulders of Shap granite and moved them across the country. Because the rock is so easy to recognise, these itinerant blocks (erratics) have helped us understand the directions that the ice took. Shap granite boulders have been found down the Vale of Eden, in the valley of the River Tyne, in the Yorkshire Dales, and even on the east coast at Bridlington, 160 kilometres away.

You can't go far without seeing Shap Granite as a building stone in our northern towns; Metro stations in Newcastle city centre are faced with it. It was so popular that you will also see it in St Mary's Cathedral in Edinburgh, at the entrance to St Pancras Station, on the Albert Memorial and even in the Precinct of St Paul's Cathedral. Shap granite often has areas of a different, dark-coloured rock in it, bits from the older surrounding rock that got caught up in the molten magma. Geologists call them xenoliths; quarrymen call them heathens. I wonder if there are any in St Mary's and St Paul's?

### Photographs

(Photo 21-1) 21 Erratic boulder of Shap Granite beside Wet Sleddale Reservoir.

(Photo 21-2) 21 Shap.



*(Photo 21-1) Erratic boulder of Shap Granite beside Wet Sleddale Reservoir.*



*(Photo 21-2) Close-up of Shap granite.*