Geological glossary

Amphibole A type of mineral, most commonly dark green to black in colour

Basalt A dark-coloured, fine-grained igneous rock rich in iron and magnesium, formed when lava cools on the Earth's surface

Bed A layer of sediment or sedimentary rock. Beds can vary in thickness from a few millimetres to many metres

Biotite A black mica that forms flakes that glitter in the sun

Blockfield An area covered in angular blocks of rock, formed by repeated freezing and thawing of ice in cracks in the rock during the Ice Age. In Assynt, blockfields are commonly seen on the tops of the higher hills

Calcite (calcium carbonate) A mineral made of calcium, carbon and oxygen ($CaCO_3$); the main component of limestone and marble

Cross-bedding A feature of some sedimentary rocks. See box on page 5

Conglomerate A sedimentary rock made up of pebbles in a finer grained matrix

Dolerite A dark-coloured igneous rock that has the same chemical composition as basalt but is coarser grained, as the magma from which it formed cooled more slowly

Dyke A sheet-like body of igneous rock, formed when magma was intruded into older rocks, cutting across their layering

Erosion The wearing down of rocks and subsequent transport of the debris by agents such as wind, rain and glacial ice

Erratic A boulder plucked from bedrock and transported by a glacier to be deposited some distance away from the source, often on top of a completely different type of bedrock

Fault A fracture in the Earth's crust along which rocks have been moved relative to each other

Feldspar A common type of mineral, typically milky white or pink in colour

Glacial striae Scratches on a rock surface made by rock fragments frozen into the base of a moving glacier; they show the direction of glacial motion

Gneiss A coarse-grained rock, typically showing alternating pale- and dark-coloured bands, formed by metamorphism at high temperatures and pressures

Granite A white, grey or pink, coarse-grained igneous rock, composed mainly of the minerals quartz and feldspar

Igneous rock Rock formed when molten rock (magma) cools and solidifies. Igneous rocks include extrusive rocks erupted from volcanoes at the Earth's surface (e.g. basalt) and intrusive rocks that cool beneath the Earth's surface (e.g. granite, dolerite)

Lava A general term for molten rock (magma) that is erupted at the Earth's surface

Limestone A sedimentary rock consisting mainly of calcium carbonate, commonly containing shelly fossils

Magma Molten rock from the Earth's interior, which cools and solidifies to form igneous rocks

Mantle The main bulk of the Earth, between the crust and the core, ranging from about 40 kilometres below the Earth's surface down to about 2900 kilometres. It consists mainly of iron- and magnesium-rich minerals

Metamorphic rock A rock in which the minerals and textures have been changed by metamorphism

Metamorphism The process by which the minerals and texture of a rock are changed by heat and pressure deep within the Earth's crust

Moraine A mound or ridge made of loose debris that has been transported and deposited by a glacier

Mylonite A finely banded rock formed when rocks are squeezed under intense pressure

Nunatak A mountain peak standing above an ice sheet

Pluton An irregular body of coarse-grained igneous rock, formed when magma was trapped in a chamber beneath the Earth's surface

Psammite A metamorphosed sandstone

Quartz A common mineral, made of silica and oxygen (SiO_2); typically grey or white in colour.

Quartzite A rock made predominantly of quartz

Sediment Loose material, such as sand, silt and clay, which forms as the result of the weathering and erosion of older rocks

Sedimentary rock A rock that is commonly formed by the consolidation of sediments (e.g. sandstone, siltstone, mudstone) or from the remains of the hard parts of organisms (e.g. limestone)

Schist A layered metamorphic rock, typically rich in micas such as biotite

Sill A sheet-like body of igneous rock, formed when magma is intruded into older rocks, roughly parallel to their layering

Syenite A coarse-grained igneous rock that contains more feldspar but less quartz than granite

Thrust A fault that is near-horizontal or gently dipping, and along which older rocks have been placed over younger rocks. See box on page 11

Unconformity A surface that represents a gap in the geological record, normally resulting from a period of erosion or a time when no sediments were deposited. Younger rocks therefore lie directly on top of rocks that are many millions of years older

Glossary of Gaelic words

Aird Height or promontory

Allt Burn or stream

Alltan Small stream

Aluinn Beautiful

Beag Little

Bealach Pass

Beinn Mountain

Ben Anglicised form of Beinn

Caisteal Castle

Ceardaich Smithy or forge

Clach Stone

Cnaimhseag Pimple

Cnoc Round hill

Còinich Moss

Coul Anglicised form of Cùl

Creag Crag or cliff

Cùl Back, hill-back

Dubh or dhu Black

Eas Waterfall

Fada Long

Fionn White, fair, or holy

Fuaran Well or spring

Gharbh Rough

Gleann Glen

Liath Grey

Mhadaidh Dog, wolf or fox

Mhuilt Wether

Mòr or More Large

Poll Pool or pit, mud

Sail Heel

Sgoilte Split

Spidean Pinnacle

Stac Steep conical hill

Tartair Noise

Uamh Cave

Uidh Isthmus or ford

Uisge Water

Figures

(Figure 100) Folding in gneiss.

(Figure 102) View across Loch Broom from near Ullapool.

(Figure 100) Folding in gneiss.

(Figure 102) View across Loch Broom from near Ullapool.