
Glossary

Ankerite A calcium, iron, magnesium, manganese carbonate mineral

Anthropocene Recognized as the present geological period where human activities now have a pronounced influence on geological conditions and processes.

Anoxic Depleted of dissolved oxygen

Bedding A feature of sedimentary rocks, in which planar or near-planar surfaces known as bedding planes indicate successive depositional surfaces formed as the sediments were laid down.

Bioturbation The disruption of depositional sedimentary structures by organisms e.g. activities such as burrowing.

Bivalve Class of molluscs with paired oval or elongated shell valves joined by a hinge (e.g. mussels).

Brachiopods A phylum of solitary marine shelled invertebrates, the shell is made up of two unequal valves.

Breccia A coarse-grained clastic rock composed of angular rock fragments. Breccias are formed in sedimentary and volcanic environments, and via tectonic processes.

Calcite Calcium Carbonate [CaCO₃] a widely distributed mineral and a common constituent of sedimentary rocks, limestone in particular. Also occurs as stalactites and stalagmites and is often the primary constituent of marine shells

Calcareous Containing calcium carbonate.

Carboniferous A geological period [359–299 Ma] of the Palaeozoic Era preceded by the Devonian and followed by the Permian.

Carbonaceous rocks Sedimentary rocks containing significant enrichment in organic matter (carbon).

Chilled margin The fine-grained outer layer of an igneous body formed by rapid cooling.

Conglomerate A coarse-grained clastic sedimentary rock, a significant proportion of which is composed of rounded or subrounded pebbles and boulders.

Conjugate faults A set of faults at opposing angles (the angle of which varies depending on mode of faulting), developed synchronously.

Conchoidal A smooth, curved surface similar to the interior surface of a shell.

Crinoid A sea dwelling creature (class Crinodea) which has survived since Ordovician times. They are known as sea-lilies and have three sections, the stem, the calyx and feather-like arms by which they collect food. Their abundance in the Palaeozoic era has meant that their remains have formed large thicknesses of limestone due to their calcareous skeletons.

Cross-bedding Sets of strata which are inclined to the general stratification of the beds. They dip in the direction of fluid flow at the time when the beds were laid down.

Deltaic A depositional environment where a river enters into an area usually the ocean, where the flow is zero leading to the river sediment being deposited, and finer grained material is usual farther out into the lake or ocean, (distal).

Devonian A geological period [416–359 Ma] of the Palaeozoic Era preceded by the Silurian and followed by the Carboniferous.

Diagenesis All physical, chemical and biological processes that occur in sediment after deposition and before metamorphism. It does not include weathering.

Dip-slip fault A fault with a vertical component of displacement.

Dolerite A medium grained intrusive igneous rock chemically similar to basalt but due to a slower cooling rate than basalt, crystals can be seen with a hand lens. It usually occurs as dykes, plugs or sills.

Dyke A sheet-like body of intrusive igneous rock emplaced along a vertical or near vertical fracture, normally discordant to the structure in the country rocks.

Fault A fracture in the Earth's crust across which the rocks have been displaced relative to each other.

Fault plane A vertical or dipping surface of a fault.

Fault zone A zone of tectonically deformed and broken rock representing the surficial expression of a fault. The zone can comprise of fault rocks, slip surfaces, fractures and mineralisation, and may be weaker or stronger than the strata the fault displaces.

Fissile A term used to describe a rock which is easily split.

Flower structure A group of upwardly diverging faults formed in strike-slip fault zones.

Fluvial Referring to a river environment.

Fold A bend in planar structures such as rock strata or bedding planes.

Footwall The strata found in the plane beneath a fault.

Formation The fundamental unit used in lithostratigraphy. Specific features distinguish one formation from another. Formations may be subdivided into members and several formations may constitute a group.

Geomorphology The study of landforms and the processes that form them

Hanging wall The strata found in the plane above a fault.

Igneous rocks A rock that has formed from the cooling of magma (molten rock).

Intrusion A body of igneous rock which has been injected as magma into existing hard rocks (country-rock). On cooling the magma is called an igneous intrusion.

Joints A fracture, or potential fracture, in a rock adjacent to which there has been no displacement.

Limestone Sedimentary rock composed mainly of calcium carbonate.

Lithified Unconsolidated sediments which have gone through the process of forming solid rock.

Lithology The character of a rock expressed in terms of its mineral composition, structure, grain size and arrangement of its constituents.

Lithostratigraphy The branch of stratigraphy concerned with the description of rock units in terms of their lithological features and spatial relationships.

Ma Abbreviation for megannum (or more correctly, megannus) meaning million years

Magma Molten rock.

Oblique slip fault A fault which has a component of dip slip and strike slip combined — i.e. a mixture of horizontal and vertical movement.

Paleogene Geological Period: 66 to 23 Million years ago

Paleozoic Geological Era: 541 to 252 Million years ago

Quartz The mineral form of silicon dioxide (SiO_2). The most abundant and widespread of all minerals, it generally appears transparent or white and is hard enough to scratch glass.

Quartz dolerite A basic, fine grained intrusive igneous rock containing quartz

Quaternary A geological sub-era [2.6 Ma to present day] of the Cenozoic Era, following the Neogene.

Relay ramp The overlap zone between two linked fault segments

Seat earth A sedimentary rock underlying a coal seam representing an old soil that supported the vegetation from which the coal has formed.

Sedimentary rock A rock formed in one of three main ways: by the deposition of the weathered remains of other rocks (clastic sedimentary rock); by the deposition of the results of biogenic activity; and by precipitation from solution. Four basic processes are involved in the formation of a clastic sedimentary rock: weathering (erosion),

Sinistral A left-lateral sense of motion along a fault plane

Slickensides A polished rock surface, usually displaying linear grooves and ridges (slickenlines). Found on fault planes and caused by the movement of adjacent blocks of rock.

Stigmaria Root system of trees

Strata Rocks that form layers or beds.

Strike-slip fault A fault with a horizontal component of displacement

Stratigraphy The definition and description of the stratified rocks of the Earth's crust.

Syncline A U-shaped fold containing stratigraphically younger rocks in its centre. **Talus** A sloping accumulation of loose clasts generally in the form of a wedge, usually found at the base of a steep rock face.

Thrust faults A reverse fault, typically low angle.

Trace fossil A fossilized track or burrow formed by animal movements in soft sediments, preserved in the rock record.

Vein A fracture in the rock infilled with secondary minerals, often quartz or calcite.

White trap An alteration product of basic igneous rocks following intrusion into carbon rich rocks (e.g. coal).

[References](#)