

Aillwee Cave - A timeless journey into the heart of the Burren.



Cave Description

The story of Aillwee Cave began millions of years ago when the landscape was very different to that which we see today. The cave began to form when streams sinking underground on Aillwee Mountain started dissolving channels through the lines of weakness in the limestone.

About one million years ago, the ice ages began and from then until fifteen thousand years ago, Ireland's climate alternated between arctic coldness and warmer periods, freezing and melting, over the centuries.

Aillwee is one of the most ancient caves in the Burren and perhaps in Ireland. The earliest history of the cave is preserved in its roof. In the roof of Mud Hall are numerous twisting tunnels cut into the rock. These channels (anatomoses) were formed in a bedding plane above a layer of mud in the limestone by a small underground stream. Over the millennia one of these tiny channels became enlarged into an almost circular tube filled with fast moving water, the remains of this half tube are to be seen throughout the full length of the cave indicated the route of the major fast flowing water course, gradually the underground stream cut itself in a deep trench in the rock perhaps 20-30m deep. The ice and snow all vanished over the years, the stream ceased to flow and gradually the cave walls in the canyonlike trench began to decay. Great blocks fell from the walls and mud was washed in, creating a floor. Stalactites and stalagmites started to form and the cave began to look as we see it today.

The best known cave formations are called stalactites and stalagmites. These are pure, crystalline forms of the mineral known as calcite, the main component of limestone. When seepages of water enter a cave passage some of the dissolved limestone may be re-deposited as tiny crystals. Gradually these crystals build up to form a stalactites or stalagmites.

When a trickle of water enters the cave from the roof the resultant calcite deposits, sometimes take the form of a straw stalactites. These are generally the fastest growing formations to be found underground.

Some straws survive and develop into solid conical tapering features called true stalactites; good example of these formations are "The Carrots" in Midsummer Cavern. Where the flow of water is greater, some of the drops splash onto the ground carrying their load of calcite, forming stubby domes called stalagmites. Examples of this can be found in Midsummer Cavern.

Cave formations have a practical use. By measuring the amount of radioactive uranium in the stalagmites the age of the formations can be determined, when they first started to form. As these formations are the last thing to happen in the cycle of a cave it is possible to deduce the minimum age of the cave itself. In Ail wee most of the formations are very recent in the history of the cave itself. The small knobbly stalagmites on the floor Mud Hall took over 1,000 years to reach their present size 8,000 years ago. The larger stalagmites in Midsummer Cavern took 5,000 years to form. Some samples of calcite taken from deep inside the cave started to form 350,000 years ago and it should be borne in mind, formations were the last thing to happen in the cave history, so it can be proved that the cave was already ancient when this formation started.

Calcite in its pure state is glistening white and can be used as a filler for paints and paper or as chips for its ornamental properties. Here in Ail wee Cave the calcite is stained by impurities leached out from the rocks above the cave. Red or orange staining is due to iron compounds. Grey through to black staining is due to manganese impurities.