

Geology Sheet 13

Tilted limestone; how to bend rock



The limestone layers in the Burren are not always perfectly horizontal. In fact, all of the limestones of the Burren are tilted, mostly only very slightly, by 2-5° from horizontal. In the region of Mullaghmore (Fig.1) in the Burren National Park, the

limestones are tilted more steeply; 30 – 50° - and show gentle folding.



Fig. 1. The tilted rocks of Mullaghmore in the Burren National Park

This tilting and folding was caused by the same tectonic stresses (2 continents colliding) that caused the limestones to fracture.

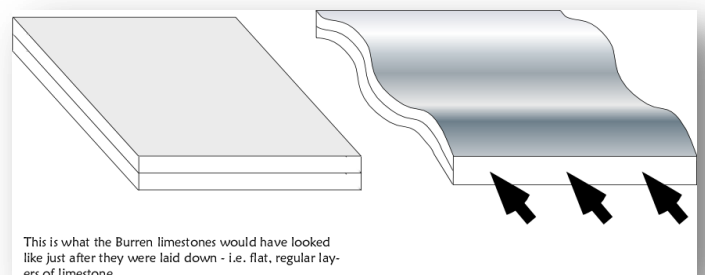


Fig. 2. Slow but immense pressure can fold deeply buried rock layers

The continental collision that caused this folding happened at a very slow pace (only a few centimetres per year), and occurred when the rocks were buried deeply. This allowed a gradual transformation to occur as the calcite crystals re-arranged themselves into a new arrangement (Fig.2)