



**Title: Every slope has a story**

**Location: Oakland Road, Malin Bridge, Sheffield.**

At first glance Oakland Road looks like an urban landscape but look up this hilly street and three different slope gradients can be seen. The house rooflines and the parked cars show the changes clearly. At the bottom the ground is almost level, then is steep, then levels off at the top again, so underneath the houses is a physical landscape with a story that stretches back well before humans built here.

Oakland Road is on the side of a valley carved out by the River Loxley, which drains off the high Peak District moorlands to the west. Valleys result from a combination of vertical and lateral erosion processes that, over millions of years, wears the land down to produce a gently sloping plain.

So, the upper level surface of Oakland Road is the remains of a plain formed by long-term river erosion of the ancient River Loxley. Then during the middle of the Ice Age, about 475,000 years ago, global sea level dropped and the vast quantities of water draining from melting ice sheets caused a raging river to cut down into the upper surface. The result was the steep valley slope that forms the main section of the road in the photo. For the last 425,000 years slower lateral erosion has produced a new floodplain, forming the level ground seen at the bottom of Oakland Road, which here is about 150 metres from the river. If you know how to think geographically, then every slope has a story!