SLIGO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Slishwood Gap, Ox Mountains**		
Other names used for site			
TOWNLAND(S)	Cartronhugh		
NEAREST TOWN	Ballintogher		
SIX INCH MAP NUMBER	21		
NATIONAL GRID REFERENCE	174530 329370 = G 745 294		
1:50,000 O.S. SHEET NUMBER	25	**1/2 inch Sheet No.**	7

Outline Site Description
Rock exposures in narrow valley cutting through the Ox Mountains.

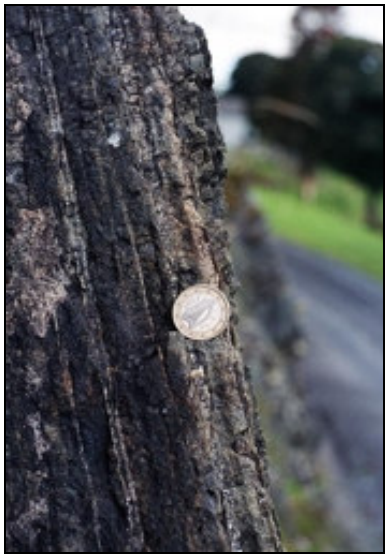
Geological System/Age and Primary Rock Type
Precambrian, metamorphic rock known as serpentinite and gneiss in adjacent outcrops.

Main Geological or Geomorphological Interest
Dark green serpentinite, about 900 million years old, is exposed at the Slishwood gap. The serpentinite contains serpentine minerals and is criss-crossed by thin veins of the asbestos mineral chrysotile. The rock here was originally a peridotite (containing the minerals pyroxene and olivine) and as such was formed approximately 50 km beneath the Earth's surface in the mantle. A period of mountain building (where continents collided) more than 600 million years ago resulted in the interleaving of the peridotite with the rocks of the Slishwood Division when the latter were pushed to depths close to the crust/mantle boundary. Following this phase the peridotite was then altered to serpentinite.

The Slishwood Gap exposures are often as ice-smoothed roche moutonées. Roches moutonées are ice-sculpted rocks produced by abrasion of the bedrock by material carried in the ice. They generally have a smooth slope at one end, in the direction from which the ice flowed and a steeper, rougher slope at the opposite end. Ice erosion through the softer serpentine carved out the gap in the mountain. The green valley here owes its relative fertility to the magnesium derived from the serpentine.

Site Importance
The site is of National importance and is proposed for NHA designation under the IGH5 Precambrian theme of the GSI's IGH Programme.

Management/promotion issues
This site provides a model for management of other sites. The landowner, Mr Padraic McGarry is very welcoming to the regular geological visitors he receives, and has constructed steps, a footbridge and a stile to facilitate access to the best exposures.



Serpentinite containing veins of chrystolite (left).

Large Serpentinite exposure at southern end of Slishwood Gap.

Slishwood Gap, Ox Mountains