



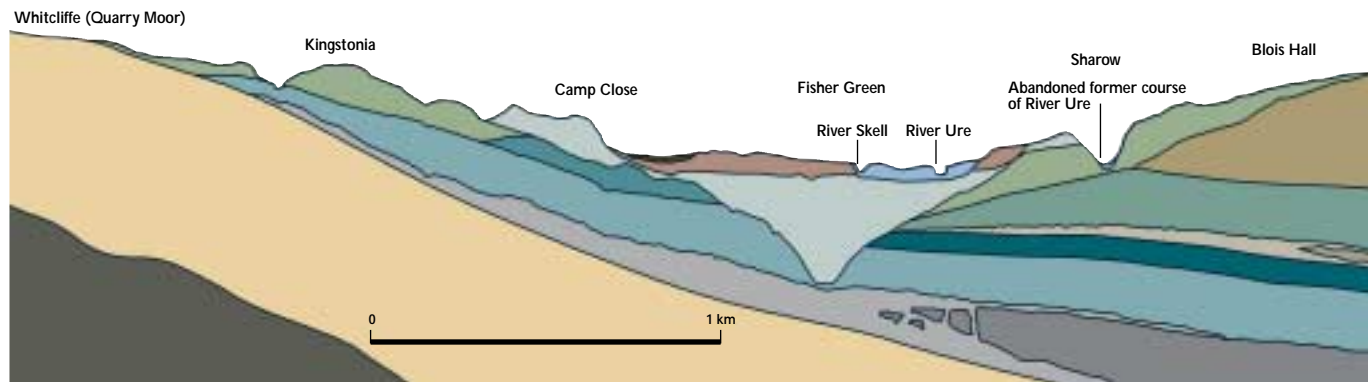
the Geology of Quarry Moor

Geological cross section through the Ripon Area

Quaternary Drift		Alluvium
		Peat
		River Terraces
		Glacio-Fluvial Outwash and Buried Valley Gravels
		Glacial Till
Triassic		Sherwood Sandstone Group
		Roxby Formation Marl
		Roxby Formation Gypsum/Anhydrite
		Brotherton Formation Limestone
Permian		Edlington Formation Marl
		Edlington Formation Gypsum/Anhydrite
		Cadeby Formation Limestone
Carboniferous		Undivided

limestone and can be seen as brown earthy beds above the quarry face. There is a gap of 255 million years between the limestone and the glacial till deposited by glaciers some 20,000 years ago.

The gypsum deposits in the limestones and marls underneath Ripon are of great interest because gypsum is soluble in water, and underground water can dissolve the deposits causing land above to collapse. Subsidence holes and hollows are aligned more or less north west - south east and can be easily seen on a walk through Ripon especially along Magdalens Road where water has filled a large hollow by the farm adjacent to the St. Mary Magdalen. The central area of the City including the Cathedral and the Market Place by contrast show no signs of subsidence.



Quarry Moor must also have supplied lime for mortar for the Norman minster church from the 11th century and for subsequent centuries. It supplied stone blocks for the 15th and 16th century additions to the Cathedral (Minster) as seen by the lighter blocks in its structure.

Younger Triassic sandstones overlie the Permian rocks, and these in turn are overlain by glacial deposits of the last Ice Age as seen in the section above.

At Quarry Moor the Triassic sandstones and later sediments are absent having been eroded away in subsequent geological periods, so the glacial deposits appear immediately above the

A young Lewis Carroll, whose father was a visiting examiner to Ripon Cathedral, would have seen these holes which possibly influenced his idea in the story of *Alice in Wonderland* where Alice falls down a 'rabbit hole'.



Supported through the Defra Aggregates Levy Sustainability Fund



Supported by Ripon City Partnership and Yorkshire Forward



Text and source material by Councillor Mick Stanley. Designed by figurehead (01423) 887943. Illustrations by Stephen Huxley

