

## COUNTYBRIDGE QUARRY, THE LIZARD PENINSULA, CORNWALL – HISTORICAL AND GEOLOGICAL SIGNIFICANCE OF AN ABANDONED QUARRY

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Countybridge Quarry, a Cornwall County Geology site (RIGS), is an abandoned serpentinite quarry that started in the 19th Century as one of a number of small local quarries, and subsequently became one of the larger quarries in the region. Together with the adjacent Trevassack Quarry, it was the principal and effectively the last source of serpentinite building material in the 20th Century on the Lizard Peninsula. The quarry exploits a narrow band of tremolite serpentinite, overlain by loess, which formed the overburden in the quarry and was removed to still well-preserved spoil heaps. The resulting loess section, designated as the type section of the Goonhilly Member of the Lizard Loess Formation has been cleared and re-examined. This re-examination, which has been extended to include other abandoned quarries on the peninsula, suggests that the sharp, locally brecciated, contact between the overlying loess and the under-lying serpentinite bedrock is in all probability a periglacial shaved surface and that the loess of the Lizard Plateau was not immune from periglacial processes, as is often assumed.

Quantitative age data for vegetation re-colonisation within the quarry have been estimated and the long lasting damage done by vehicle tracks to areas with vulnerable thin loessic soil covers is highlighted. The principal ecological importance of the quarry, i.e. the direct link with geodiversity, is the presence of magnesium carbonate secreting stoneworts in the flooded parts of the quarry and miner bees in the upper loess unit.

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