# **CORK - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE Other names used for site IGH THEME TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET NUMBER GIS CODE Madranna Slate Quarry Madranna, Modrana IGH15 Economic Geology Madranna Leap 133 523225E 539300N (floor of quarry) 89 GSI BEDROCK 1:100,000 SHEET NO. 24 CK064

## **Outline Site Description**

Madranna Slate Quarry is a disused quarry approximately 3 km northeast of Leap.

## Geological System/Age and Primary Rock Type

The slate quarry at Madranna is hosted in flaser-bedded sandstone and mudstone of the Narrow Cove Member of the Kinsale Formation, which is of Lower Carboniferous (Mississippian) age (359-323 million years ago).

## Main Geological or Geomorphological Interest

Madranna was one of three pits that formed the famous Rosscarbery Slate Quarries of the nineteenth and early twentieth centuries. These were West Cork's largest slate quarries and gave employment to many people in the nineteenth century - over 200 were working there around 1850. Workable slate deposits were first discovered at Benduff, to the east of Madranna, around 1812, though the Madranna workings and those at nearby Cooladreen are somewhat later in origin.

Unlike the other two Rosscarbery slate localities, the workings at Madranna were primarily underground, in the form of a series of about ten inter-connecting galleries. Access to the galleries was from two large quarry pits, only one of which survives today. Each subsurface gallery measures up to 15 m in plan view, and up to 10 m in height. The pillars between the connecting galleries are punctured by sub-levels, with a ventilation drive at the top of each pillar to provide an exhaust route for blasting fumes.

The slate was worked in "veins"; which were delineated as joint-defined blocks that determined the maximum size of blocks of slate that were to be extracted for splitting and dressing. The first and second galleries here are reasonably accessible today, despite flooding.

#### Site Importance – County Geological Site

The site is an important part of the industrial heritage of County Cork as it demonstrates the importance of geology to the economic lives of people and of the buildings that form part of society. It is well documented and fully deserves to be protected and recognised as a County Geological Site.

#### Management/promotion issues

The quarry is set within a deep open pit, which is surrounded on three sides by woodland. The underground workings are partially flooded. The quarry is situated on private land and as such is not accessible without permission. Overall the quarry is not suitable for general promotion without significant interventions.



The one extant Madranna Slate Quarry, viewed from the east.



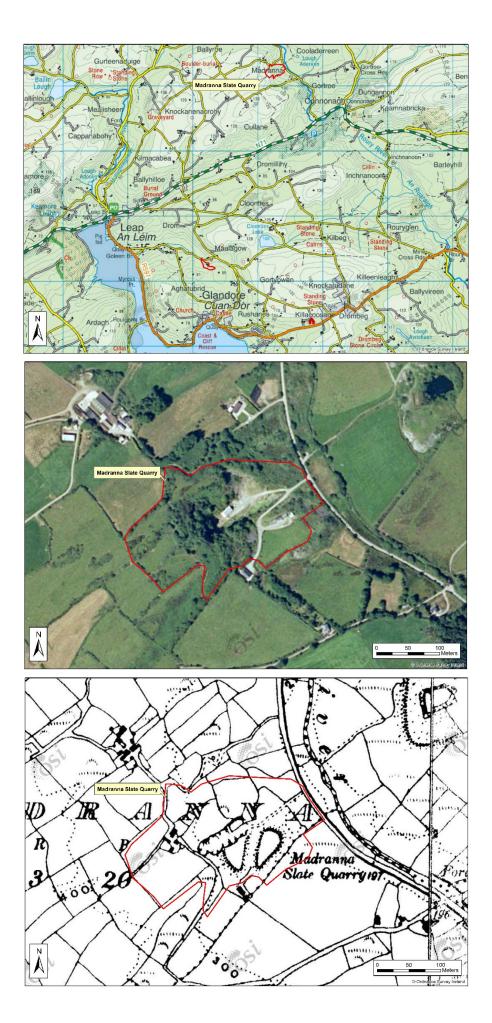


The entrance to the underground galleries, partially-obscured by scrub.

Close-up of the first gallery, partially-flooded.



The flaser-bedded sandstone and siltstone of the Narrow Cove Member that yielded the slate.



Hennessy et al., 2023. Geological Survey Ireland.



Advertisement from the Southern Star in 1892.



Miners at Madranna Slate Quarry in the early 1900s.