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# Smarts Quarry

## Highlights

Smarts Quarry is the only known locality in the Millstone Grit of South Wales to show stellate feeding traces made by bivalves.

## Introduction

This old quarry or silica 'mine' lies about 1.5 km NE of Kidwelly, Dyfed, Wales [SN 434 084]. There is no published description of the site.

## Description

Exposed in this quarry are quartzites from the Basal Grit Formation of the Millstone Grit. The principal point of interest is the presence, on one of the quartzite bedding planes, of stellate feeding traces thought to be produced by bivalves. It is the only known site to show such traces in the British Millstone Grit.

## Interpretation

By analogy with modern examples, the presence of such stellate traces suggests that this part of the Basal Grit was deposited in an estuarine environment, rather than a simple shoreline as suggested by some earlier authors. It provides general support for the sedimentological model for the Millstone Grit of South Wales, described by Kelling (1974).

## Conclusions

Smarts Quarry shows rocks belonging to the Millstone Grit, and probably represent estuarine deposits, some 320 million years old. The principal point of interest here is the presence of marks on some of the beds that are thought to represent marks left by bivalves as they fed near, or on the sediment surface. This is unique in Britain for rocks of this age.

## [References](#)