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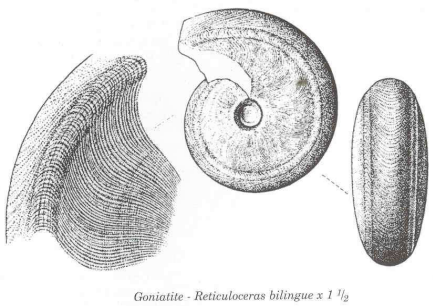
A WALK AROUND TODMORDEN MOOR TO LOOK AT THE ROCKS, FOSSILS AND LANDSCAPES

View to Todmorden Moor from Guide Quarry at SD 912 251

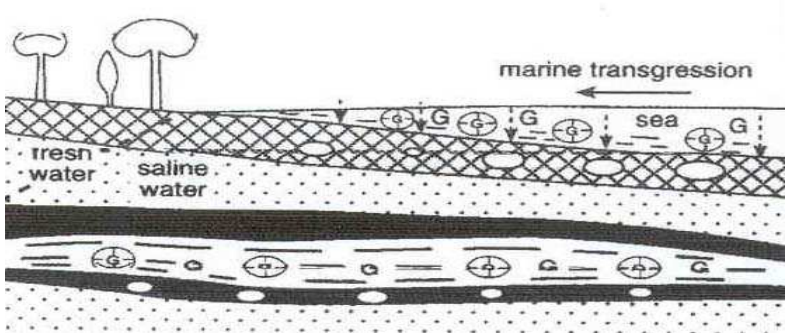
Todmorden Moor is **upland plateau moor** which lies between Cliviger Gorge to the north and Dulesgate valley to the south, with steep slopes down towards north and east into the Calder valley.
The Moor is cut by five different **sandstone** beds which run roughly north-south. These are of Upper Carboniferous (Yeadonian and Langsettian) age (about 315 million years old). The sandstones are exposed in Flower Scar Road and in two disused quarries close to the Bacup road (A681).
Between each sandstone bed lie **mudstones** which contain a total of seven **coal seams**, which have been extensively worked on the Moor.
Many of the spoil tips on the mine yield fossils within carbonate nodules. These rocks, particularly the mudstones, contain fossils, of which the most important are **goniatites**.
The coal seams and associated mudstones are an important source of **coal balls**, which are not made of coal but are found in coal seams. They are **nodules** containing beautifully preserved plant fossils, which are of great importance in the study of **palaeobotany**.

Coal ball



Goniatite

Diagram to show the formation of coal balls and nodules from A. C. Scott and G. Rex 1985



The sites of at least four mines with associated spoil tips are still visible. Clough Head Colliery mined the Upper Foot Coal and the Lower Mountain Coal, as did the nearby Todmorden Moor Colliery at Clough Foot and the colliery at Saunder Clough. At Saunder Clough there was a **fireclay** works which produced bricks.
Quarrying of sandstone has also taken place and there are disused quarries at Clough Head, at the west end of Todmorden Moor and at Guide Quarry.

The sandstones are more resistant than mudstones and they form the upland moors, while the mudstones are less resistant and are weathered and eroded more easily, so are exposed in the valleys.
This pattern of erosion on the sandstones and mudstones is common and gives West Yorkshire its characteristic landscapes of flatter moorlands formed by sandstones and steeper slopes formed by mudstones.

The Moor is covered with **peat deposits** which started to form during the Atlantic climatic period about 7000 to 5000 years ago, when the climate was particularly cold and wet. The peat is up to 2 or 3 metres deep.