BUDE, CORNWALL
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Bude is situated on the Cornish coast just over the border from Devon. Bude's rocks are Upper Carboniferous, mainly shales and sandstones. Bude is only a small town but its best known feature is the Bude Canal. The underlying rocks make the soils of North Cornwall acidic so farmers needed to spread lime on their fields to help the crops grow well. The only source of local lime was the beach sand made from broken seashells. Vast tonnages were carried inland, and this was the main use of the Bude Canal.

The area studied in Bude was along the coastline from Bude Visitor Centre (Grid Ref. SS208062) to Maer Cliff (Grid Ref. SS203083). This stretch of coastline comprises many interesting geological features including anticlines and synclines.

The first feature was the breakwater from Summerleaze Beach to Saturday's Pit. The breakwater is mainly made up from the local rocks sandstone, granite and limestone. A close look revealed that there were many fossils mainly corals and crinoids. In 1819 prior to building the sea locks, a breakwater was built to protect the harbour and entrance to the canal. It was destroyed by a violent storm in 1838 and rebuilt the following year; it still remains.

The Whale Rock, *(see photograph 1),* so called because of its distinct whale like shape, is in fact an anticline, the top of which is exposed on the surface of the beach. At the south end you can clearly see the folds. Along the limbs of the fold, cracks and joints diagonally cut each other, showing evidence of severe deformation. The Whale rock is made from sandstone with silty layers in between.

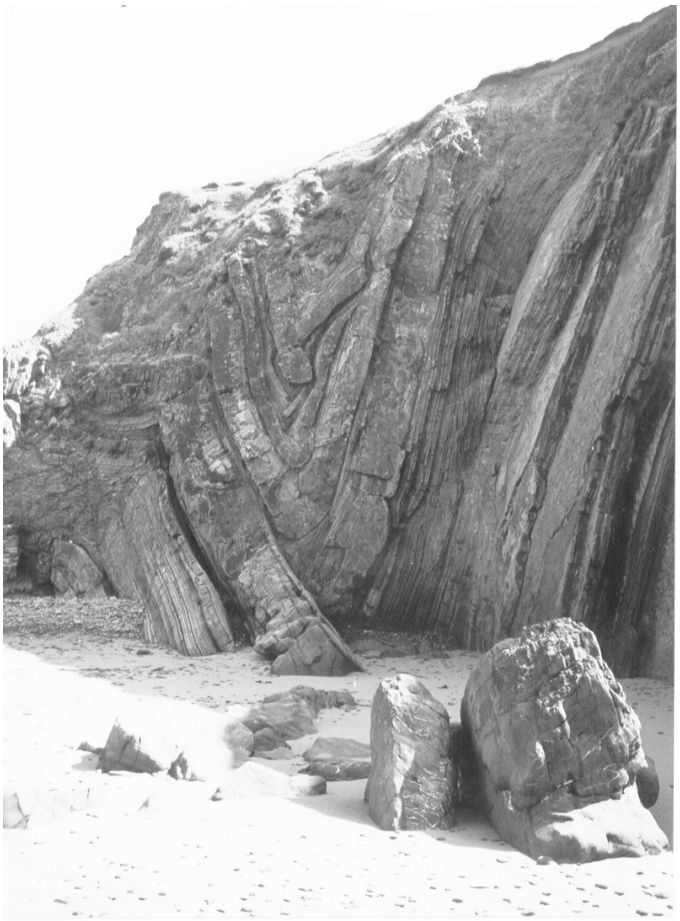
Photograph 1 - Whale Rock, Bude

By recrossing Summerleaze beach you arrive at an open-air swimming pool known as Saturday's Pit. Behind the swimming pool is a roughly 4 m thick layer of shale known as Saturday's pit shale; these layers of rock all dip to the north. At the steps down to the beach there is a syncline which can be clearly seen if you stand back from the cliff. In the cliffs there are many small caves, if you

rub your fingers against the side of one of the caves, a powdery black residue comes away, possibly some sort of carbon, but apparently no good coals are found here. Inside the cave is oxidised with an orangey 'rust' deposit coating the walls

There are many folds along the the stretch of coastline from Crooklets Beach to Maer Cliff, (see photographs). All are Variscan in age and occur in the Carboniferous turbidite sequences of sandstones and shales.

Photograph 2
Anticline on
Maer Cliff



Photograph3
Syncline showing
the severe pressure it
has suffered