

## Appendix: Some geomorphological aspects of Gower's karst

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Some of the geomorphological features of Gower's karst are illustrated in the following plates. Most are photographed from offshore, as the extent of the deformation that occurred during the Variscan Orogeny, and events from more recent geological periods are exposed and clearly visible along the southern coastline. If all the anticlines, folds, and synclines were 'smoothed out', the cliffs would be about twice their length, and the whole peninsula would be double its present size. But that would be a landscape of little interest to cavers, walkers or others who visit to admire, explore or study the convolutions and fractures in the rugged cliffs, or the archaeology in its caves.

**Plate 1: Worms Head and Mumbles Head**



*Worms Head is the most westerly point of the peninsula and juts out from the main cliff line about a mile (1600m) into the Bristol Channel. The 60m high cliff of the Outer Head was the last thing many a sailor saw as it loomed out of the misty darkness during a winter storm. Sonar has revealed that the bedrock of the headland extends SW under the sea for about another 800m. The bedrock dips steeply SSE, but at the same time it is also part of a north trending syncline (see Plate 2).*



*Mumbles Head and its two islands represent the most easterly point of the Gower Peninsula. The headland and islands are separated by large south-north trending fractures. Combined, they form the eastern end of the Langland Anticline, and mark the end of the severe Variscan deformation at this end of the peninsula. The visible, south, side of this formation is Hunt's Bay Oolite (HBO), with the northern flank Oxwich Head Limestone (OHL).*