

Unlike the other islands of the Eastern Caribbean, Barbados evolved in an accretionary prism as opposed to a magmatic arc. Termed the 'Barbados Ridge', this prism is a bathymetric feature, situated east of the ridge of the Lesser Antilles magmatic arc platform and above the active subduction zone between the Atlantic Oceanic lithosphere of the South American Plate and the overriding Caribbean Plate.

There is a north-south trending trench between these two plates, composed of "low density, terrigenous sediments" (Barker et al., 1982) which generally constitute the mineral makeup of Barbados island, the only emergent peak of the Barbados Ridge complex.

With the exception of some volcanic ash bands, the rock succession in Barbados is entirely sedimentary in origin. Donovan et al. (2005) states that 85% of the island is covered by Pleistocene coral reef limestone cap (Coral Rock), while the remaining 15% is an inlier of Tertiary sedimentary rocks of marine origin, which crop out in a triangular region in northeast Barbados called the Scotland District, over an area of 40 km<sup>2</sup>.

The Scotland District is made up of two fault-bounded deformed units: The Scotland Formation (sandstones and clays of early to late Eocene) as well as the Oceanic Formation (turbidites and deep water biogenics of mid Eocene to Miocene).

Together, these three segments (Coral Rock, Oceanic Formation and Scotland Formation) form a geological environment which has endowed Barbados with an abundant supply of limestone, sands, sandstones and clays. Unfortunately however, there are no metallic or precious mineral deposits to be found in this geological setting.