

In the Paumotus, the shore platform, the steep beach, and the more gently sloping shore of the lagoon are almost constant characteristics.

The width of the whole rim of land, when the island gives no evidence of late elevation, varies from three hundred yards to one-third of a mile, excepting certain prominent points, more exposed to the united action of winds and waves and often from opposite directions, which occasionally exceed half a mile.

The *shore platform* is from one to three hundred feet in width, and has the general features of a half-submerged outer reef. Its peculiarities arise solely from the accumulations which have changed the reef into an island. Much of it is commonly bare at low tide, although there are places where it is always covered with a few inches or a foot of water; and the elevated edge, the only part exposed, often seems like an embankment preventing the water from running off. The tides, as they rise, cover it with water throughout, and bear over it coral fragments and sand, comminuted shells and other animal remains, to add them to the beach. The heavier seas transport larger fragments; and at the foot of the beach there is often a deposit of blocks of coral, or coral rock, a cubic foot or so in size, which low tide commonly leaves standing in a few inches of water. On moving these masses, which generally rest on their projecting angles and have an open space beneath, the waters at once become alive with fish, shrimps, and crabs, escaping from their disturbed shelter; and beneath, appear various Actiniæ or living flowers, the spiny Echini and sluggish *biche de mar*, while swarms of shells, having a soldier crab for their tenant, walk off with unusual life and stateliness. Moreover, delicate corallines, Ascidiæ and sponges tint, with lively shades of red, green, and pink, the under surface of the block of coral which had formed the roof of the little grotto.

Besides the deep channels cutting into the margin of the reef and giving it a broken outline, there are in some instances long fissures intersecting its surface. On Aratica (Carlshoff) and Ahii (Peacock Island) they extended along from a fourth