

## guyot

 Encyclopædia Britannica

*also called Tablemount,*

isolated submarine volcanic mountain with a flat summit more than 200 m (660 feet) below sea level. Such flat tops may have diameters greater than 10 km (6 miles). (The term derives from the Swiss-American geologist Arnold Henry Guyot.)

In the Pacific Ocean, where guyots are most abundant, most summits lie 1,000 to 2,000 m (3,300 to 6,600 feet) below sea level. Their sides, like those of other submarine volcanoes and volcanic islands, are slightly concave, rising gently from the surrounding deep-sea floor and steepening to about 20° at their summits.

Fossil corals with a maximum depth tolerance of only 150 m (500 feet), along with rounded volcanic cobbles and boulders, have been dredged from the tops of guyots. These data indicate that guyots originate as volcanic islands at the shallow crests of mid-oceanic ridges and rises. During and immediately after their formation, the islands are truncated by wave erosion. According to the generally accepted theory of seafloor spreading, the seafloor migrates laterally away from the ridge or rise crests at rates of several centimetres per year. As the seafloor is propagated away from the crests, it also sinks; thus, guyots become more deeply submerged with time.

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