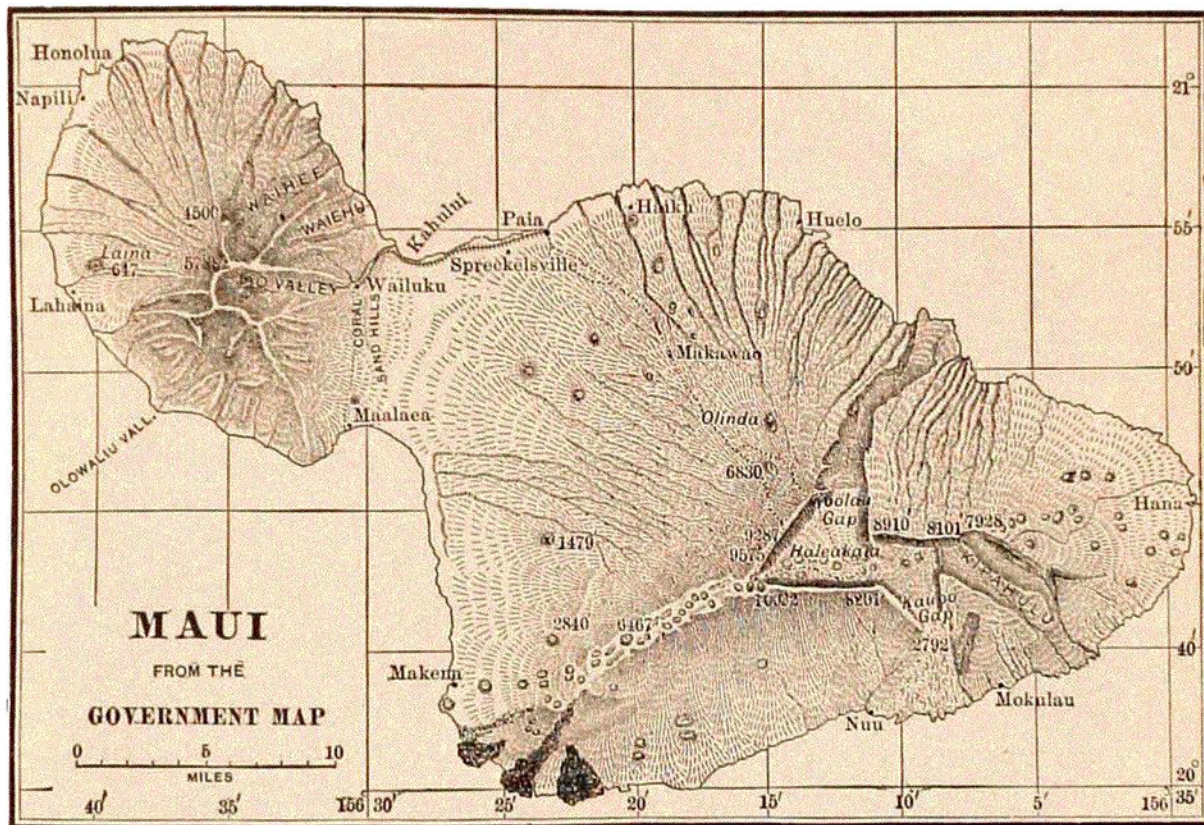


The earliest stages are well illustrated in the Hawaiian mountains. One of them, Mount Loa, 13,675 feet high (see Figs. 227 and 229), is still active; consequently it is without river valleys or gorges. Another, Mount Kea, 13,805 feet, has many gorges on the wet or windward side, extending upward from the coast, where they are several hundred feet deep; but they go only half-way to the top. The leeward side is yet unchanneled.

The map here introduced is that of the adjoining island of Maui.

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On eastern Maui, the cone, 10,000 feet high, has a somewhat less recent aspect in its rocks than that of Mount Kea. It has channels on its windward slopes, some of which reach up to the edge of its great crater; but on the leeward side only narrow trenches that seldom contain water. At the same time, western Maui, nearly 6000 feet, has profound valleys in place of the many small ones, marks of very long exposure to denuding agents; and another island of the group farther west, Oahu (Fig. 257), is like Maui in having a *western* volcano in ruins, — a few crests and profound valleys in place of even slopes, and an *eastern* volcano of much more recent aspect, though more gorged than eastern Maui. But it met with a disaster in which over half of its mass sunk beneath the ocean, leaving a precipice for 20 miles facing the northwest or to windward. The nearly vertical surface has consequently a range of *alcoves*, finely illustrating this style of mountain architecture. To the northward the alcoves are lengthened into gorges. Moreover, over eastern Oahu the winds pass the summit of the precipice before the cold heights have deprived them of their moisture, so that the leeward slopes take