

summit to the eastward, and commenced climbing the volcanic cone. The sides were covered with soil and scattered blocks of porous lava, which had been ejected during an eruption. No layers of rock were met with on the ascent, from which these loose masses might have been detached. Decomposition was rapidly wearing away much of the scoria, and probably a large portion of the soil had thus originated. The declivity of the cone is quite regular in its slope, the angle of elevation scarcely varying from forty degrees.

On reaching the top, a deep circular cavity opened before us. We stood on a narrow ridge, about twelve feet wide,—the thin rim of the crater. The view of the crater was much obscured by the tall forest trees that cover its interior. Here and there the eye penetrated far down among the foliage, but wandered through the labyrinth of leaves and branches without reaching the bottom. Walking around the ridge or rim of the crater, we found it rarely wider than above stated, and in some parts it was but six feet in width. Its height is very uniform. At one place, on the northwest side, there was a break of thirty feet, but otherwise it appeared as entire and as even in outline, as if the fires of the crater had but just died away. The whole breadth of the mountain bowl was estimated at three-fourths of a mile. We could not use a pocket sextant on account of the trees. The depth by the barometer was three hundred and seventy feet.

We descended into the crater by a very steep declivity, often losing our foothold along the muddy surface and sliding down many yards, till brought up by some root or branch of a tree. The bottom of the cavity is an uneven surface, covered with earth and loose scoria, like the exterior declivities. There was a rank growth of shrubbery of various kinds and tall succulent plants, and these were shaded by some of the loftiest trees of the island. Although the summit is usually shrouded in clouds, and rains are frequent, no water had collected at the bottom. The soil was damp, and, in some places, a little muddy, but far less so than had been expected. The rains probably find some subterranean outlet.

* *a*, Apia. *b*, Mount Vaiea, and above on the summit of the range, Lanuto'o. *c*, Sangana. *d*, Fasetootai, and back of this village, the crater 'Tafua.



WESTERN DISTRICT, IN OUTLINE, AS SEEN AT SEA OFF APIA.*