

lava. This is the only instance, as far as I could learn, of the existence of any recent volcanic appearances.

The basaltic conglomerate consists of fragments of the basaltic rocks: its general characters may be inferred from our description of the similar beds at Tahiti. The fragments, where I examined the rock, were partially rounded, and some of them more scoriaceous than any of the basalt observed in place on the island. It had a dark colour, and a dull earthy aspect when broken. It occurs in layers near the western entrance of Pango-pango Harbour, and along the shores in that direction where it appeared to underlie the basalt. Numerous other localities of it probably exist, but in our rapid glance at the island, I did not meet with them.

The basalt generally exhibits a tendency to a columnar structure, but no distinct columns with regular polygonal forms were observed. A short distance to the east of the harbour there stands a small round islet, rising from the waves like the venerable ruins of an ancient tower. Its erect sides consist of rude columns of basalt. A few spots of verdure relieve the blackness of the walls, and the broken summit is overgrown with shrubbery and a few large trees. The bold shores and steep rocky escarpments, which are the prominent features of Tutuila, result, in many instances, from imperfect vertical cleavages, or a tendency to a columnar structure, characterizing the basalt.

Tutuila has undergone so great changes by convulsions and denuding agents, that the outline of the volcanic cone or cones from which the rocks of the island were ejected, is wholly obliterated. With our present imperfect information, we do not attempt to trace out the position of the central vent or vents; we can only compare the island, in general features, to Kauai, among the Sandwich Islands, and Tahiti, of the Society Group. The basaltic lava, on the southwest side, according to Mr. Cunningham, did not flow from a crater, but probably from some fissure or opening which is now concealed.

The harbour of Pango-pango, with its mural enclosures, reminds us of such valleys as the Val del Bove of Etna, and unless we may look to convulsions and subsidences as the sources of its formation, or to such phenomena as appear at Kilauea, we are at a loss to account for its extent and features.