

WILEY



Account of a Visit to Niuaufou, South Pacific

Author(s): Boyle T. Somerville

Source: *The Geographical Journal*, Vol. 7, No. 1 (Jan., 1896), pp. 65-71

Published by: geographicalj

Stable URL: <http://www.jstor.org/stable/1773680>

Accessed: 24-06-2016 20:34 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
<http://about.jstor.org/terms>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Wiley, The Royal Geographical Society (with the Institute of British Geographers) are collaborating with JSTOR to digitize, preserve and extend access to The Geographical Journal

ACCOUNT OF A VISIT TO NIUAFOU, SOUTH PACIFIC.

By Lieut. BOYLE T. SOMERVILLE, of H.M.S. "Penguin."

[THE small island of Niuafoú, which lies by itself in the Pacific, about midway between the Fiji and Samoa groups, is a part of the dominions of Tonga, though separated from those islands by more than 200 miles. It is seldom visited save by small traders, and, though it has been known to present a remarkable instance of that class of volcanic island which has blown off the shell covering the vent and excavated interior, and left a mere ring—in this case perfect—round a central cavity, no very complete description of it has before been received. The account (dated "H.M.S. *Penguin*, August 17, 1895") of a recent visit by the officers of H.M. surveying vessel *Penguin* will therefore probably be interesting.—W. J. L. Wharton.]

1. GENERAL DESCRIPTION OF THE ISLAND.

Niuafoú island is the northern limit of the Tongan dominions, and lies in lat. $15^{\circ} 34'$ S., long. $175^{\circ} 41'$ W. It is almost circular in shape, being by an estimation given in the Sailing Directions, about $3\frac{1}{2}$ miles by 3 miles in diameter, and rises to an average height of 350 feet above the sea, with six or seven moderately marked elevations, the highest of which is 588 feet. It is thickly covered with vegetation throughout, with the exception of one place on the south-west of the island, where a lava stream, recently formed, has not yet received its coating of green.

The inhabitants, about 1000 in number, live in nine villages, all on the seaboard. They are Tongans, with a few emigrants from Uea, or Wallis island, and are all Christians, either of the Tongan State religion, Wesleyan, or Roman Catholic denominations.

The island is under a native Tongan governor, who is apparently often at Hapai; but there is a native magistrate always resident, who deals with minor offences. The majesty of the Tongan law is supported by a small corps of police, who also superintend the forced labour of convicted criminals on the roads, and other works.

There is one French missionary priest resident in charge of a very small flock, who, with two English traders and one German, form the white population. Mr. Tarris, the principal white trader of the island, has lived here for over twenty years, but at the time of our visit was away at Tongatábu on matters of business.

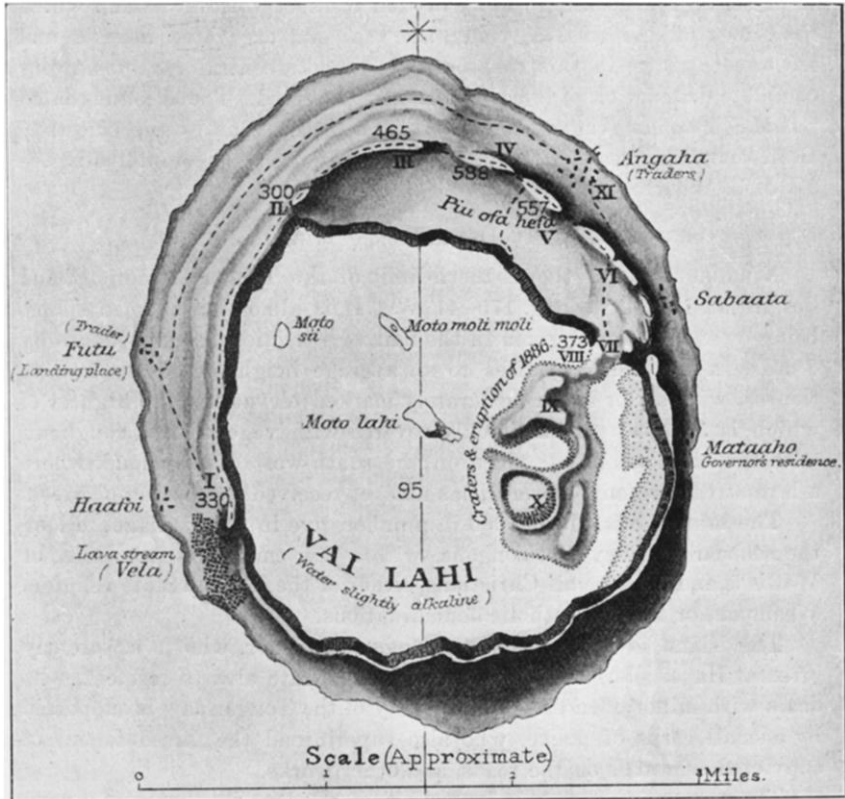
The principal village, Aŋgaha, is on the northern side, just below the highest part of the island, and is conspicuous from seaward by the white houses of the traders, two native churches, and their native pastors' dwellings, etc. The next largest village, Sabaata, is a little distance round to the eastward, and further still in the same direction is Mataaho, where the governor's house is situated, almost facing full to the south-east trade wind. On the south-west is a village called

No. I.—JANUARY, 1896.]

F

Haafoi, just below the lava stream before mentioned; and further round again, on the north-west, is Futu, the best landing-place in the south-east trade season, where the third trader has his establishment.

The whole coast-line is bounded by the most forbidding black lava rocks, on which the white surf continuously breaks. Opposite Futu, however, and at Ángaha also, the lava has conveniently poured itself out seaward in the form of short rough jetties; and landing may more



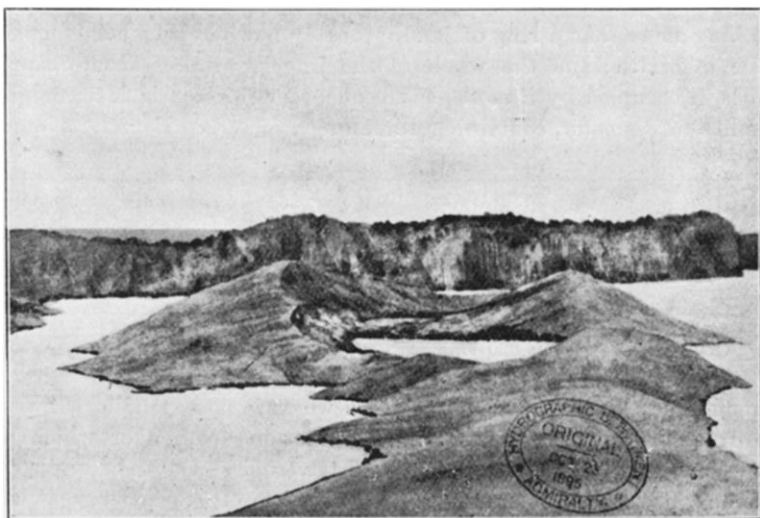
PLAN OF NIUAFÓU (FROM EYE-SKETCH).

or less easily be made on these, when the tide is suitable and the wind favourable. Probably there are more places of similar form facing the other villages, for a Norwegian barque recently spent a month at the island, during which time she loaded over 500 tons of copra, anchoring in front of each village in turn for that purpose.

The anchorage is, however, said to be very inferior all the way round, the bottom being foul ground; and there are over a dozen anchors and various lengths of cable known to have been left behind on the bottom by vessels calling here for trading purposes.

2. ACCOUNT OF A DAY'S EXPEDITION THROUGH THE ISLAND.

We landed on the natural rock jetty opposite Futu on the morning of August 17, 1895, a party of six officers, and were met by a number of natives, standing among whom was a white trader, Mr. James Yarn- don. The French missionary, hearing that a man-of-war of some description was off the island, and expecting daily a brother priest by the next one of his own nation that arrived, had hurried round at day- break the $4\frac{1}{2}$ miles from Angaha, where his house is. We saw him inspecting us from a little distance as we landed, and no doubt he was exceedingly disappointed at viewing the inevitable knickerbockers and unmistakable boots of the English tourist. We met him a few minutes



VIEW OF CRATERS AND ERUPTION OF 1886, FROM ABOVE ANĠAHA.

afterwards, but he was all welcoming smiles and bows of greeting by that time.

We knew that there was a lake in the centre of the island, and that traces of recent volcanic activity were to be seen at one spot; so, placing ourselves under the guidance of Mr. Yarn- don, who kindly undertook that office, we started off along a very fair road to view these natural curiosities, luncheon-bag and camera following with a native on a horse, of which we were surprised to find a great many on the island, the luxuriant grass everywhere affording capital feed.

Our path, wide enough almost for two carts to pass, led under the pleasant shade of the trees, and struck off first to the southward, with a general rise. After a little over a mile, it brought us into an open space, with a steep pinch of hill on the inner side, and a large area of black

F 2

lava, the stream before mentioned as visible from the sea ; on the other, dotted with little islands and oases of green.

Some portions of this place are still heated, and the whole district is called "Vela," signifying "hot." It is unwise to walk over it unless accompanied by a native, as there are various quicksands and other dangerous spots scattered throughout its extent. We did not adventure on to it, intending to go there if possible before returning to the ship in the evening (which, however, we were unable to do); so, turning to the left, we spurted up the short steep path which confronted us on that side, which led upwards amid taro and banana gardens.

Suddenly we were on the top, and, on going round, were filled with surprise and pleasure at the unexpectedly beautiful scene which lay in front of us. The island, which now lay mapped before our eyes, is nothing more than a ring of land, probably nowhere as much even as a mile in width; and the whole of the interior area, of about 3 square miles, is occupied by a most picturesque, almost circular lake, roughly 2 miles in diameter, containing three green islands. Round its entire



VIEW FROM 330 FEET SUMMIT ABOVE HAAFOI VILLAGE.

circumference from the ridge on which we were now standing, dropped down a sheer precipice, 200 and 300 feet in depth, over which the exuberant foliage and huge creepers of the tropics cast their display of leaf and blossom. From amidst this profusion of greenery, great bare shoulders and buttresses of rock thrust out, which, forgotten ages ago, must have looked down on the hideous molten mass of mud and rock, heaving and seething in the huge crater basin of fire below, now covered by the peaceful lake.

The spot where we were standing was 330 feet in height by the aneroid, and this is about the average even height of the great crater lip; but there are several summits on the ridge, mostly on the northern and eastern sides, and it is also varied by a rather marked dip which occurs abreast of the lava stream near this first position.

The lake appeared to be almost circular; the regularity was broken in one place only by the upheaved ground of the eruption of 1886, the bare reddish surfaces of which we could just see 2 miles away to the eastward. A photograph was taken from this spot, but as the trade wind was blowing with unusual force, driving swift showers and clouds across the sky, the unsteadiness of the camera prevented the plate from doing justice to the scene.

We arrived on this part of the ridge at 8.30, and, after a short halt, proceeded along the crest by a very fair path to the northward, gradually circling round to the scene of the last eruption.

Specimens of rock and surface sand were collected at various positions; but, owing to the depth of the rich soil even here on this narrow edge, it was only rarely that geological specimens presented themselves on the surface. The soil of the island-ring is evidently of the richest, most prolific nature, and this has been taken every advantage of by the natives. Garden after garden of banana, taro, and other tropical food-plants met our view in all directions; and what at a distance appeared to be bush, on closer inspection became a very forest of coconut palms, of which there must be some millions on the island. It surpassed all of our previous experiences of tropical cultivation or extent of coconut groves.

The northern arc of the island is wider across than elsewhere, and though it rises up steeply enough from the seaboard, there is, after the first precipitous dip on the inner side, a nearly flat area—not inhabited, but largely cultivated—which then dives down to the lake-edge by a native path, only just possible to be scaled.

The path above then leads to the highest part of the ridge, where there are two summits near one another, of which the aneroid gave 588 and 557 feet as elevations respectively. The second of these is crested by a flat grassy mound, the grave of some chief's wife of an earlier day; and here we had a pleasant spell, it being now 11.30, though the heat of the sun was considerably tempered by an unusually strong and squally trade wind.

This summit is called Piu Ofa Hefa, and from it we could see, almost perpendicularly below us, Angaha, the principal village of the island, with its clean huts and houses dotted on the grass, bordered by the foam-edged rocks of the seaboard; beyond them again the white horses of the south-east trade swell; and there, rolling along before the wind, the *Penguin*, steaming slowly round the island, and stopping every now and again to sound. Inside, the lake lay spread before us with its three islands, Moto Lahi, Moti Moli Moli, and Moto Sii, named in order of size. Moli Moli is said to have a small crater of its own containing fresh water, a lake within a lake. Close on our left, on the south-south-east of the island, was the oddly shaped barren peninsula formed nine years ago, from which dense clouds of white smoke-like dust and sand were being driven by the wind into the big lake.

Having refreshed ourselves with many green coconuts, we started down for this spot, descending by a steep ravine-like path which quickly brought us into the land of desolation, the sudden edge of trees and rich undergrowth stopping dead like a wall, so that one step brought us out of a garden, as it were, into the desert. We first crossed an area of stones and cinders lying on apparently hard mud; and, having

passed this, we paused again for a little on a sandy summit, which completely overlooked the whole scene of activity, at a height of 373 feet, and sketch-book and camera were quickly at work. The hill dropped down very steeply below us, with a few small casuarinas, the first sturdy pioneers of the advancing forest, scattered on its slope. Down in the valley were the still standing white stumps of trees overwhelmed in the eruption; and beyond, on the other side of a lower smooth round hill, we could just see the circular pits with their seamed ashy sides—the nearer one broken down into the big lake, but the further smaller one separate, each filled with water—the craters of activity of August 31 and seventeen succeeding days of 1886. The whole of this scene was upheaved from what had previously been the lake bottom during that period, and forms a peninsula, with a long narrow gulf running nearly parallel to the south-east side of the periphery of the island. The natives have begun to plant coconuts on the lower ground already.

We quickly descended the steep sandy hillside to the shore of the lake, the aneroid giving its elevation as 95 feet above the sea-level. The water does not appear to be exactly salt to the taste, but rather alkaline—not very unpleasantly so—and the horses on the island will drink it, which, as there are no streams nor any fresh water but rain to be had, must be a good saving in times of drought. It is said that there are no fish in the lake, nor does there appear to be any vegetable growth, except for a small feathery plant which we saw a foot or so below the surface, growing on the edge of the sand. The lake, which is called “Vai Lahi” (or great water), is supposed to be very deep, and there is a tradition of a sounding of 100 fathoms with no bottom, which, however, requires confirmation.

There is a small white alkaline deposit a few inches below the present water-line like a low-tide mark, so that it appears as if the surface of the lake varied its level occasionally. The surface soil of the peninsula does not appear to be volcanically heated, but, on thrusting the hand into the soft black sand at the water-edge to a depth of 2 or 3 inches, it was found to be very decidedly hot—not less, probably, than 150°.

As the leaders of our party rounded one of the points of the peninsula, a great flock of wild duck rose within easy shooting distance, but had soon put themselves out of range. Unfortunately, there was no gun in the whole expedition, or no doubt we should have had something more eatable than geological specimens to show for our trip.

Another bird, said to be alone found on Niuafoú, is called by the natives “malau,” and is apparently of the same order as the megapodes, as it makes no nest, but buries its eggs for hatching in the soft hot sand of this volcanic spot. It is a bird of about the size of a rather small ordinary fowl, and shape of a guinea-fowl, with a small head, and strong pink legs and feet. It is of a russet-brown colour, the head, neck, and some of the back being a dark slate. Its eggs are large, of a

dull reddish colour; a thin skin, containing the pigment of which, covers the white shell underneath, and can be peeled off without difficulty. The eggs much resemble, both in size and appearance, those of the megapode.

We at length scrambled over the last ashy ridge, and found ourselves on the smaller but separate crater basin, all the steep sides of which, 100 to 200 feet high, were deeply fissured, being composed of a crumbling material which broke away under the foot; and we sat down to lunch on the edge of the water at the bottom, which was roughly circular, and about 400 yards in diameter.

The other crater must have been much larger and probably more elliptical; the neck by which it joins the big lake has high steep sides, but the ridge which separates it from the lesser bowl is not more than 50 feet or so in height. Thus both may be said to belong to the same main orifice, but separated by a small partition.

It was now 1.30. The sun was baking down on this barren, shadeless spot, and hardly any of the wind reached us; so, without waiting long, we returned by the same route as we came to the first bare summit, the final exceedingly steep hill of loose sand being particularly exhausting. We threw ourselves down by the side of a small casuarina shrub, while a native, who had attended us as porter, went for coconuts.

The long cool refreshing drink from these soon revived us, and we were shortly mounting the steep ravine path we had previously descended, in the welcome shade of the trees, to the upper ridge. Thence we descended as steeply to the sea-coast, to the village of Angaha, where having been courteously received by the two white traders there, Messrs. Plati and Sheren, and having been shown a live "malau" bird, almost tame, in a cage, we set out, laden with the island mail for Tonga, on the homeward route. This lay along a capital road about halfway between the ridge path we had come by and the sea; and we passed many natives returning home with their garden produce for Sunday, it being Saturday night, some walking and some riding, who all greeted us with the cheerful "Malo lelei" of the Tongans as we passed them.

It would be hard to describe the extreme beauty of this road, the rich dark mould on both sides yielding a garden border of ferns and flowering shrubs, overshadowed by immense leafy trees; or where, for a considerable distance in front, we could see the path stretching along in the orderly perspective formed by the grey trunks of coconut palms, a full crop of nuts in all stages of maturity clustering under their feathery waving crests.

We at length arrived at Futu at 4.45, to find the ship waiting, and our boat lying alongside the landing-place; so, with many thanks to our guide who had conducted us all day, and after a hurried purchase of baskets of delicious green oranges, lychees, etc., from the natives, we pulled off to the ship, thoroughly agreed in having spent a most interesting and delightful day.