

called Haafuluhao) is the most variegated and beautiful of the Tongan or Friendly Archipelago. Of the islands which compose it Vavau, embracing about one hundred and fifty square miles of land, is by far the most important, and contains nearly all the inhabitants. Grouped closely around the large one are about one hundred small islands, of which the most important are Bagaimotu, Falevai, Niupapa, Huga, Oloua, Koulo, Ofu and Ovaka. The others are mere islets, chiefly lying to the southward, in close proximity to each other. The location of the Vavau group is between latitude  $19^{\circ}$  and  $19^{\circ} 30'$  south and longitude  $173^{\circ} 50'$  and  $174^{\circ} 10'$  west.

West of Vavau is the volcanic island of Latu, and northward and eastward lies the islands of Tokau, Fanua Lei or Amurgura, Boscawen's Island Nuatobutabo and Nuafovu. The last named island is situated in latitude  $15^{\circ} 30'$  south and longitude  $175^{\circ} 45'$  west. The neighboring island Nuatobutabu lies in latitude  $16^{\circ}$  south and  $174^{\circ}$  west. Both belong to the Tongan kingdom though their geographical position lying as they do between Vavau and Samoa places them very far away from the seat of government. Amurgura lies in latitude  $18^{\circ}$  south and longitude  $174^{\circ} 20'$  west. Prior to 1846 that island was inhabited and covered with verdure and fruit trees. But in the year named it blew up with an explosion which was heard 130 miles off, and was reduced to a huge mass of lava and burnt sand, without one leaf or blade of any kind. The people had all escaped, warned by violent earthquakes which preceded the eruption. The sea was covered with ashes for more than sixty miles, and the trees and crops at Vavau forty five miles away were seriously damaged. At the time of the catastrophe, an American whaling ship, commanded by Captain Somson, enroute for Vavau, fell in with, and passed through a thick and heavy shower of ashes and pumice stone. He reported his experience as follows:

"At the time we saw the cloud it was a double-reefed topsail breeze from the northeast; but it was a beautiful clear star-light night. As we approached, it appeared like a squall; and as soon as we entered, the eyes of the men on watch were blinded with fine dust. Captain Samson put the ship about; but being convinced that there was no land near, he again kept his course. When the sun arose, the dust appeared of a dark red color, rolling over like great volumes of smoke and presented an appalling appearance. At 8 o'clock a. m. it became so dark that candles had to be lighted in the cabin. At 11 a. m. the atmosphere began to clear a little, and the sun was occasionally seen. By noon we were clear out of the cloud, being then in  $170^{\circ} 45'$  west longitude and  $21^{\circ} 2'$  south latitude, having sailed through the shower of ashes at least forty miles." Captain Cash, of the ship Massachusetts, got into the shower about the same time, though his course lay in the vicinity of Savage Island probably sixty miles to the eastward of Captain Samson's position.

The absence of running streams or rivers is one of the characteristics of the Friendly Islands. There are only two very insignificant exceptions throughout the whole group. These occur at Vavau and Eua. That at Vavau is an underground stream, and is reached with

difficulty, by descending a considerable depth into a natural cavern that can only be explored by the aid of torches. The streams on Eua are very small. For soft water the inhabitants depend entirely upon what is collected from the clouds, either in tanks or day pits called by the natives lebas. The rainy months are December, January and February. The average temperature during the entire year is  $76^{\circ}$  F. During the hot months from December to March, the thermometer frequently ranges at  $90^{\circ}$  and even  $96^{\circ}$  in the shade. The islands are subject to hurricanes, which seem to occur with periodical regularity, and always in the rainy season from December to March. "The full force of the cyclone falls upon one or other of the three groups, at intervals of about seven years," writes the Rev. Thomas West. "The hurricane gives but few indications of its approach. The wind rises suddenly, accompanied by heavy rain, and its duration, strength and progress, in any given locality, depends upon its being nearer to, or more remote from the center of the wind circle. No tongue or pen can possibly convey an adequate idea of these visitations. Heaven and earth appear to be on the move; and as for the sea, its grandeur is altogether indescribable. The rush of the irresistible tempest; the cracking and fall of trees on all sides; branches hurled through the air; cocoa-nuts torn from the trees and flung in all directions with the velocity of cannon balls; a deluge of rain; unusual darkness; and the crash of falling houses;—all these attendants upon a hurricane make up one of the most dismal and terrific pictures in natural phenomena. The destruction of dwelling houses and other buildings usually attended upon these visitations, must, however, be attributed not merely to the force of the wind, but also in great measure, to the torrent of rain. The fact is, the heavy rain soon saps the foundation of the large posts upon which the security of the building depends. Gradually the wind sways the superstructure to and fro, and at every gust opens and widens the earth around the sockets of the posts, until the entire fabric loses its equilibrium, and coming down with a crash, all its posts and beams, however tough and thick, are snapped like so many carrots." During a hurricane in Vavau many years ago, thirty-four out of thirty-nine Wesleyan chapels were blown down, though these buildings were the very best and strongest constructed by the people.

All the islands are subject to earthquakes, which are both frequent and violent. The brethren who are laboring here now have experienced the peculiar sensation of being violently shaken by Mother Earth a number of times, but the occurrence of earthquakes produces but very little alarm among the natives whose houses cannot be shaken down by them.

Like many of the Polynesian groups, the Friendly Islands are entirely free from noxious snakes and serpents, nor are there any frogs or toads. It seems hard to determine what were the indigenous animals of the islands. Captain Cook, when visiting the islands in 1777, found hogs and dogs; but it is supposed by some that these were left by the Dutch navigator Tasman, nearly a century before. Horses and cattle were re-introduced by the missionaries about 1860. They were first left by Captain

Cook, but became distinct during the long series of wars which succeeded the period of his visit. Sheep also were added by the missionaries to the stock of fine goats that had been introduced at an earlier date. The common domestic fowl, the moa of Polynesia, is (a chicken) plentiful, both in the abis (home) of the natives and in all parts of the "bush." The bato or Muscovy duck also abound, and there are some turkeys. Geese and English ducks have been introduced, but they do not seem to thrive. The sea birds comprehend several varieties of gulls, bitterns and herons. In Tonga, as in all tropical countries, insect life swarms and luxuriates, as much as the vegetation. Ants, black and red, swarm everywhere, and so do lizards and beetles of all kinds. The ants became so troublesome at the mission home at Mua, that Elder Atkinson, who ranks as the inventor of the little family of Elders, had to fall back upon his genius in order to secure the scanty supply of sugar kept in the house from the extraordinary appetites of the ants. That the sugar bucket was suspended on a long string from the ceiling of the kitchen was to no effect; the little pests would climb to the roof and then march down in single file to the bucket, and there feast; hence an original contrivance was thought of and adopted; but as it is not patented yet, I don't feel at liberty to describe it here. It seems that a well-fitting lid might have had the same effect. The mosquitoes are also plentiful and troublesome on the islands.

According to a census taken in 1891, the total native inhabitants of the Tongan kingdom consisted of 19,186, distributed upon the different groups and islands as follows: Tongatabu, 6,675, Eua, 353, Haapai. (groups) 5,404, Vavau, (groups) 5,084, Nuatobutabu or Keppel Island, 667, and Nuafo'ou 993. The number of whites on the whole group is 353, which added to the native population of 19,186, gives a grand total of 19,539 for the whole kingdom. There are only five post offices in the kingdom namely, Nukualofa, the capital (on Tongatabu,) Neiafu (on Vavau,) Liuka (on Haapai,) Nuafo'oa and Nuatobutabu. The natives are nearly all more or less educated; nearly every person over ten or twelve years of age can read and write the native language; but only a very few of them can speak English.

ANDREW JENSON.

NUKUALOFA, Tongatabu, Tonga, Aug. 24th, 1895.

### SOMETHING YET TO LEARN.

The election is over and Utah is now about to enter upon another and higher career as a State. Forty eight years ago a small party of Pioneers entered Utah, then Mexican soil, hoisted the American flag, established a provisional government and soon applied to the American government for admission as the state of Deseret. The application was refused, but a territorial organization was granted instead. At last the wish of the Pioneers has been fulfilled, but not until very many of them have passed away.

The present is a great epoch in the history of the Latter-day Saints, whose energy, faith and perseverance have, with the blessings of heaven, conquered the land from savages, drouth and famine. The change is marvelous to