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The Adze Quarries of Tutuila

The island of Tutuila is the main island of American Samoa in the South Pacific, the sole American possession in the Southern Hemisphere. In the pre-western-contact period of Samoa's 3,000-year history, Tutuila (53 square miles of mainly high volcanic mountains) was known as an exile isle, where dissidents from the larger islands in the west of the archipelago were banished.

In recent decades, archeologists and historians have been able to assemble some of the pieces of a story that greatly enhances our understanding of the importance of Tutuila in the centuries before western contact. This story starts high on the jungled ridgelines of the island, extends down to our shoreline, and stretches out to other far-flung islands in the Pacific. It is the story of the stone quarries of Tutuila.

Metallurgy was not practiced by traditional Pacific island cultures. Until the arrival of metal implements brought by Euro-Americans, Pacific islanders fashioned what nature provided into tools and weapons. Archeological research has provided evidence of shell, bone, obsidian, and stone implements, all carefully crafted for specific purposes. Highly prized for the manufacture of stone tools (*to`i ma`a*) was a dense, dark volcanic rock called basalt. A variety of adzes (*matau*), chisels, and scrapping tools were made of basalt.

Grinding stone basins (foaga) at Sogi on the coast below the Tataga-matau adze quarry, Tutuila, American Samoa. Photo courtesy the Feleti Barstow Public Library and the Rotary Club of American Samoa.

Here and there on the ridges, ridge spurs, and steep mountain sides of Tutuila can be found outcrops of particularly high-grade, fine-grained basalt. Samoan ancestors found, developed, and quarried these outcrops. Thus far we know of 10 such basalt quarry sites on Tutuila. The four largest of these quarries are located in the mountains behind the villages of Leone, Faga`itua, and Tula and on a ridge spur in Fagasa.

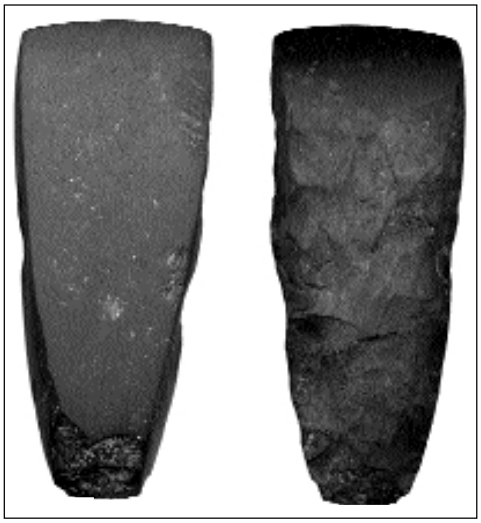
To the trained eye, these sites tell a story of hundreds of years of continuous use and thousands of manhours of arduous toil. The more we learn about these sites, the more a scenario of long-term, intensive industry emerges, and this scenario affords us a rare opportunity to envision the day-to-day activities and lives of people long gone and unable to tell their story in any other way.

From the dense scatter of basalt "flakes," "cores," "blanks," "preforms," and pieces of tools that characterize these sites, and from the stone and earth-work, man-made platforms, foundations, and fortifications that have been excavated in association with the largest site—Tataga-matau in Leone—we can reconstruct an ancient manufacturing industry that also speaks of prehistoric social organization and economic relations. No other such quarries have been found on any other islands in Samoa. These were special, export-quality basalt tools.

From Tataga-matau Leone Bay is far below you when you can see it through the jungle canopy. The footing can be treacherous. This is the site of the largest basalt quarry found—50 acres of once intensely occupied land, now mainly bush. Because of its significance, Tataga-matau has been entered on the National Register of Historic Places.

Here is where it all begins, at a large basalt outcrop, where "blanks" were rock hammered out of a core boulder. Down slope, the way the basalt pieces were discarded at various steps of manufacture allows us to reconstruct the stages needed to make each type of tool.

A sense of the social order of the manufacturers takes shape when we realize that tools were made in an assembly line fashion with different



Front and back views of a Type I adze from Ta'u island, American Samoa. Photo courtesy American Samoa Historic Preservation Office.

stages of tools completed at different areas in the quarry. And what is the meaning of all those fortifications guarding the quarry? Why such extensive defenses?

Down at Sogi, on the Leone coast, are hundreds of *foaga* in the black lava flow, hand-worn bowl-shaped depressions, where the basalt adzes went through the final sharpening and polishing step in their production. Why so many? How many people sat here at the high-tide line putting the final touches on the island's major prehistoric export? How many voyaging canoes from different islands pulled at their stone anchors in the bay?

Many of Tutuila's prized adzes did leave the island as trade items. Thanks to recent developments in the elemental analysis of basalt rock, we can trace to Tutuilan quarries adzes discovered on the islands of Manu'a, Western Samoa, Tonga, Fiji, the Solomon Islands, and the Cook Islands. This examination of pre-contact trade relations has just begun, but already Tutuila has assumed a historic role at the center of a great regional trade in fine stone tools.

The exciting thing about this story from the past is that it is still unfolding before us as we explore it.

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