

## In the Hawaiian “Stone Age”

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**A**rcheologists refer to the material culture of ancient Hawai‘i as neolithic, since its basis was via the use of stone tools. In a volcanic setting, metal-bearing ores were unavailable, so the development of tools and weapons was based on a foundation of available materials that included coral-derived limestone, sedimentary sandstone, and a variety of volcanically-derived rocks such as pumice, dense, fine-grained basalt, lighter, more porous basalt, and rather uncommon igneous rocks such as obsidian (volcanic glass), and jasper. With such a limited set of working materials, it is amazing how rocks of various kinds were incorporated into every aspect of Hawaiian life, from warfare to personal grooming, from cooking to creation of carved figures, from house-building to communication, and from agricultural complexes to massive temples.

Pā pōhaku (stone walls) ranged from simple, low constructs that provided more visual separation than physical barrier, to well-engineered double walls, inward sloping, with smaller clinker filling, designed to settle inwards during earthquakes. The culmination of stone structures of course, were massive heiau temple structures, some of which we can still be awe-struck by today, such as Pu‘u Koholā at Kawaihae on the Big Island, or Pi‘ilanihale, in Hāna, Maui, whose sides tower above the kukui treetops near the rumbling sea. No less marvelous



Heiau drawing by Lu Wilson

are some of the stonework used to lay out Hawaiian ‘auwai (agricultural canals) and lo‘i (terraces). Intricate and extensive public works covered the bottoms of arable wet valleys, and even brought water long distances to bring agriculture to fertile, but water-limited re-

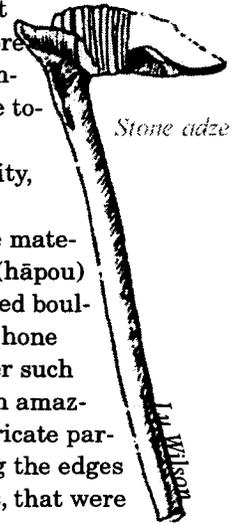
gions of Kohala. No wonder pre-contact Hawai‘i supported half a million or more people without the need for massive importation of food and goods that we see today.

Well aware of the variations in density, porosity, and abrasiveness, Hawaiians matched different rock abraders to the material being worked, from softer pumice (hāpou) to finish woodwork, to hard, fine-grained boulders (pōhaku hoana), against which to hone the finest ko‘i (stone adzes). To discover such grinding boulders at ancient sites is an amazing thing: huge boulders, on which intricate parallel grooves radiate outward, marking the edges of innumerable adzes of different sizes, that were finished or resharpened on such stones over perhaps hundreds of years.

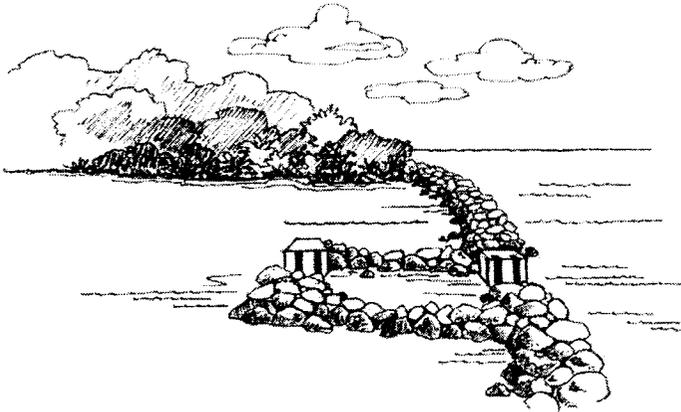
The permanence of stone marked it as supernatural in a world where things are typically born, live, and pass away from physical existence, and it is no surprise that everything from huge stone formations to smaller carved and uncarved pōhaku could be considered kino (bodies) of akua (spiritual beings). The so-called “Crouching Lion” on the island of O‘ahu is a fine example: in Hawaiian mo‘olelo, this is Kauhi‘imakaokalani, a kupua fated to a permanent watch station, and who, in his effort to arise and join Hi‘iaka in her quest for sister Pele, was able to assume a crouch before he was again petrified by greater powers than he could muster.

Smaller pōhaku reflected a myriad of ‘aumākua, from the famous pueo (owl) stone god to stones that represent manō (sharks), fish, and other creatures. Of course, stones were worked into human form too, perhaps the best known being those found on the small NW island of Necker, which show strong traces of Marquesan carving style, and verify the shared cultural heritage of Polynesia as well as an extension of the Pacific voyaging tradition.

The ko‘i (adze) is a fine symbol of the Hawaiian pōhaku tradition, because even a summary review of ko‘i size, shape and material shows a huge variety, from



Stone adze



large ko'i with which to hew down gigantic koa trees, to tiny ko'i that were used for the final carving of intricate designs on temple drums. With the ko'i, nearly all of the wooden structures of Hawaiian life were worked, from canoes to houses, and from works of art to sacred images. Ko'i were so important that an alpine site on Mauna Kea, which provides some of the finest material was visited and quarried by ko'i specialists for hundreds of years, braving freezing cold and dangerously thin air. Similarly, a site near Pu'u Wa'awa'a in Kona provides some of the best large pieces of obsidian, and the place was famous throughout the archipelago for that important carving material.

It is no wonder that in a volcanic landscape in which rock forms the foundation, weathers into soils, and thus provides the ground from which food and therefore life is generated, Hawaiians would equate their own lives to pōhaku. Among the innumerable 'ōlelo no'eau that mention pōhaku, there is a saying likening the people of Kona to lava boulders, which reflects on their numbers, their toughness, and their unity with the land. One only has to sit on the lava fields of Kona on a hot, windless day to realize also that the people of Kona would have been so sun-baked and dark, that when they sat still among the stones, they would essentially disappear among them!

There are so many terms for the different kinds of rocks, and terms for special tools and devices made from pōhaku that to even list them all would require a small book. Some of my favorite pōhaku related items include:

Type	Description
kilo pōhaku	dark polished stone mirrors which provide a fine reflection of one's face when covered with a sheen of water
pōhaku kīkēkē	bell stones, which would render a clear, loud tone audible throughout the ahupua'a in time of need
pōhaku kōhi	stone tools for splitting hot baked breadfruit, again part of a Marquesan legacy
ma'i pōhaku	phallic stones, such as the famous Kauleonanahoa on Moloka'i, that women would sit upon to ensure pregnancy
gaming stones such as maika	carved convex discs rolled for accuracy between close-set stakes during the Makahiki season. So devoted to such pastimes were our Hawaiian ancestors that the list of different maika types based on material, size, shape, and color, provide a page full of names.

So the next time you hear that ancient Hawaiians lived in the stone-age, you will know just how rich a life that was. It provides a legacy of pride that is reflected even in the popular song "Kaulana Nā Pua," whose third verse tells us

**"Ua lawa mākou i ka pōhaku, i ka 'ai kamaha'o o ka 'āina."**

*The stones are wealth enough for us, the astounding sustenance of the land.*

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