

MARQUESAS ISLANDS ROCK ART EXPEDITION,
FRENCH POLYNESIA

The Explorers Club FLAG #83 REPORT
Wings World Quest #25

MAY 4-18, 2013



An Explorer's Club and Wings Flag Expedition

Funded by
The Pacific Islands Research Institute (PIRI)
and private donations
Expedition Team



Explorers Club Flag #83 and Wings Flag #25 Expedition team 2013 at Me'ae Oipona on Hiva Oa
(Photo Alexandra Edwards)

From left to right: James Alexander (MN '05), Tamara "TJ" DiCaprio (MN'10) Alexander Wallace, (MN '01), Julie Wallace, Brian P. Hanson (Edward C Sweeney Medalist '84), Edmundo Edwards (Lowell Thomas Award, 2011, FI '90), Becky Cox (associate member), Captain Lynn Danaher.

Not pictured: Linda Alexander and Alexandra Edwards (non-EC members)

Our project was completed between May 4th and 18th 2013 on the islands of Hiva Oa and Nuku Hiva, the Marquesas Islands. The expedition was led by Edmundo Edwards, archaeologist and co-founder of the Pacific Islands Research Institute (PIRI), with the organizational expertise of Captain Lynn Danaher, president of the Pacific

Islands Research Institute (PIRI). In addition to the Explorers Club members who were part of our team, we counted with the participation of Linda Alexander and videographer and photographer Alexandra Edwards who has participated in two previous EC expeditions (Flag #95 Raivavae '06, #83 Rapa Nui '10).

A Brief Introduction To The Marquesas Islands The Results Of the Marquesas Islands Rock Art Expedition



*Edmundo Edwards & Lynn Danaher
photo by Alexandra Edwards*

(Phase I) The Marquesas Islands, named “Te Henua Enata” or “The Land of Men” by their Polynesian discoverers, are located approximately 1,370 km northeast of Tahiti and 4,800 km west of Mexico. Although they are part of French Polynesia, geographically they are one of the most remote island groups in the world and the most distant from any continental land mass. The archipelago is formed by a string of islands that extends about 230 miles from northeast to southeast and is located 8°-11° South latitude and between 138°-141° West longitude. The archipelago is divided into two distinct separate island groups. The Northern group is comprised by Nuku Hiva, Ua Pou, Ua Huka, and the two uninhabited islands of Ei’ao and Hatutu. Hiva Oa, Tahuata, Fatu Hiva, and uninhabited Fatu Huku and Motane form the Southern group. The total land area is about 1,050 km² with a population of approximately 9,000 inhabitants with a similar number of Marquesans living in Tahiti. Our Expedition was circumscribed to working in the two largest islands of each group, Hiva Oa and Nuku Hiva, in the Southern and Northern groups respectively. Nuku Hiva is also home to Taiohae, the administrative capital of the Marquesas.



Hatiheu coastline, Nuku Hiva
(Photo Alexandra Edwards)

The Marquesas Islands are of volcanic origin with ridges towering up to 1,230 m above sea level. Most of the islands are divided longitudinally by a backbone of jagged volcanic peaks that cross the mid-portion of each island and are the remnants of ancient calderas. Many ridges lead from this mountainous backbone directly to the sea. The collapsed calderas of Hatiheu in Nuku Hiva, where most of our research was carried out, form a large

“amphitheater” with numerous spires and abrupt ridges (pictured left). Windward valleys, which receive more rainfall, are deep and narrow with steep ridges and spurs that fall sharply into ample bays. Several perennial rivers, streams, and waterfalls nourish a growth of lush vegetation on these valleys and ridges. By contrast, the leeward sides of the island, which receive less rainfall, consist of arid deserts. Such is the case of the northwestern sides of both Hiva Oa and Nuku Hiva.

Despite the remoteness of the islands, the Southern Equatorial Current, which is blocked and diverted by the Marquesas, is responsible for creating the conditions necessary for abundant phytoplankton growth that nourishes a healthy and abundant food chain, including whales, orca, manta rays and other large marine creatures that are depicted in their rock art recorded during our expedition.

Like most volcanic islands, the original flora of the island arrived by flotation and wind-dispersal in addition to in the beaks, feathers, and guts of vagrant birds. Although the Marquesas have a diverse marine fauna, the islands are not protected by coral reefs, thus they have fewer marine species than their neighbors, the Society and Tuamotu Islands. The terrestrial fauna of the Marquesas is mostly limited to birds, many of which are endemic. In fact, 42% of the plants and animals found in the Marquesas are natural to the islands. Our team was fortunate enough to observe and photograph the white-capped fruit dove (*Ptilinopus dupetithouarsii*), one of eight birds endemic to the Marquesas (pictured above). Unfortunately, 18 of the 26 birds endemic to French Polynesia are in danger of extinction as a result of predation, disease, habitat changes, and unregulated hunting in past times. In relation to the number of native species, land area, and population size, this is the highest number of endangered birds in the world.



White-capped fruit dove
(Photo Edmundo Edwards)

Although most of the Marquesas enjoy a tropical climate, at the time of our visit we had an average temperature of 29°C at sea level, decreasing with altitude to an average of 25° at higher elevations, such as in the Tovi'i plateau of Nuku Hiva. The rainy season generally falls between January and July, however the islands are often subject to long periods of drought that can last up to several years. The effects of these droughts are disastrous to breadfruit production, and in the past this presented a great strain on the local population whose main staple was the breadfruit. The journal of a beachcomber called Edward Robarts who lived in Tahuata and Nuku Hiva between 1798 and 1806 provide gruesome details of the severe droughts and the

ensuing famines, wars, and deaths from starvation. In 1813 Captain David Porter of the US Navy ship *Essex* witnessed the evacuation of several villages in response to these pressures. During our stay we had little rain and most of the waterfalls in Nuku Hiva had little more than a trickle of water and people talked about a dry year, but not yet of drought.

Cultural and linguistic evidence indicate that the first settlers of the Marquesas



Taro pit, near Kahuvai, Nuku Hiva

(Photo Alexandra Edwards)

originated from Western Polynesia and may have arrived as early as 600 AD. Over a period of several centuries these adventurous voyagers introduced to the Marquesas many plants of economic and cultural value such as: different varieties of breadfruit, taro, bananas, sugarcane, and yams. The first two were the main staple in all of the Marquesas and fermented breadfruit paste was preserved in enormous underground communal silos called *ua maa* in the local language. Our expedition team visited and photographed one of these pits in a remote part of Hatiheu valley. Taro was planted in irrigated terraces that covered most of the valley floor. Polynesian dogs, jungle fowl, and pigs were also introduced as food in ancient times, but by the time of European discovery dogs had become extinct and animal husbandry was limited to raising pigs.

It is speculated that the Marquesas were the first islands to be settled in Eastern Polynesia, becoming a dispersal point from where Polynesians spread to the Northern Tuamotu Islands, Hawaii, Rapa Nui, and other islands in that part of the Pacific. The Marquesan cultural sphere probably comprised the Society Islands, the Tuamotu Islands, and extended to Mangareva and Pitcairn to the southwest as is manifest by oral traditions, linguistics, and common cultural traits.¹ Petroglyphs are common in the Marquesas, and both Rapa Nui and Hawaii rock art share several Marquesan motifs. Hatiheu and its neighboring valleys are home to one of the largest concentration of petroglyphs in the Marquesas, thus one of the goals of our expedition was to record as many area petroglyphs and statues as possible. Unfortunately, considering the amount of rock art, their relative distance, the characteristics of the terrain, and the length of our stay we were unable to complete our project and have had to add a second phase to our expedition.

¹ Recent archaeological evidence indicates Marquesans may have traveled as far as the coasts of Chile, Canada, and California and Alaska in the United States.



Tohua Koueva, Taiohae, Nuku Hiva

(Photo Alexandra Edwards)

As populations grew, eventually every Marquesan valley became inhabited. Major valleys with different river systems were often occupied by several tribes, divided into settlements led by a tribal chief who lived with his family and noble entourage. All tribal activities such as festivals, treaties, rites of passage and other celebrations took place in a communal meeting center called *tohua*. All *tohua* have a rectangular paved plaza where dancers performed,

surrounded by stone platforms over which temporary houses were erected to lodge priests and visitors. Recently restored Tohua Koueva in Taiohae on Nuku Hiva may have congregated as many as several thousand people during these festivals. Sacrificial platforms or *me'ae* are usually located on one end of the dancing platform, or in its close proximity, and also include a small platform for exposing the bodies of deceased priests or chiefs. *Me'ae* were usually surmounted by stone or wooden tiki, of which the wooden images have since disappeared. *Me'ae*, located in secluded places were usually used as tombs or as a kind of shrine where human sacrifices were offered to tribal deities. Temporary shrines were also sometimes erected near *me'ae* to store sacred objects. Also, upright slabs, long stones, or basalt blocks were set upright on a paved plaza as backrests for participating priests, chiefs, and elders. Priests were buried in nearby stone-lined vaults while the remains of victims of human sacrifice were disposed of in walled rectangular or circular pits, lined with red scoria or lapilli slabs. Banyan trees were considered sacred and are always found growing near *me'ae*. All *me'ae* were restricted by a series of prohibitions (*tapu*), especially when performances or festivities were being celebrated there, and except for inspirational priestesses, women were not allowed access at any time. On certain occasions, not even the chiefs and warriors were allowed to enter. Commoners could gather near a *me'ae* for offerings of human sacrifice, making sure to stay outside of the sacred precinct.



Our team recorded many *tohua*, *me'ae*, and *tiki* in Hatiheu and Taipivai on Nuku Hiva; and others in Ta'a'oa, Atuona, Nahoe, and Puamau on Hiva Oa. *Oipona* in Puamau was one of the most sacred *me'ae* on Hiva Oa and it was still in use in the late 1800s. Human sacrifices were frequently offered there to ensure rainfall and successful harvests. The victims were offered to god *Tau'a mata-mata* a deified inspirational priest who was believed to foster fertility in nature. The most important platform was always the one that housed the stone images, usually located in at the rear, overlooking the other platforms. Mea'e Oipona has a very large stone statue measuring 2,24 mts in height named *Takai'i*, which is one of the largest in French Polynesia. *Me'ae Oipona* also has a female statue that is depicted lying down on a stone base that is decorated with several dog carvings. Ornamental blocks with carved human heads, representing tribal deities, are also common in the area.

Me'ai Oipona, Puamau, Hiva Oa

(Photos Alexandra Edwards)



Marquesan war club

(Photo Alexandra Edwards)

The Marquesans developed a very complex culture with a highly stratified society. Chiefs and priests were at the top of the social scale, with priests sometimes acquiring great power and fame during their lifetime; the spirits of these priests were sometimes deified, becoming the tutelary deities of a tribe. Warriors followed in the social order, living in special houses and/or guarded fortresses built on the ridges separating the different tribes and their valleys. Professional craftsmen were also considered important, specializing in the building of houses, boats, fishhooks, toolmaking, tattooing, etc. Fishermen constituted the lowest rung on the social scale. They sometimes built shrines near fishing zones on the coast to aid them in fishing. Marquesans also developed very sophisticated decorative designs and art forms. Every object was elaborately decorated, a carving tradition that survives until today. The art of tattooing similarly attained artistic expertise and has been an important part of the Polynesian cultural revival starting the 1970s.

Spanish Captain Alvaro de Mendaña was the first Westerner to record the existence of the Southern Marquesas, arriving to Fatu Hiva in 1595. Mendaña named the island group the “Islas de Marquesas” in honor of the wife of his patron Don Garcia Hurtado de Mendoza, the Viceroy of Spain in Peru. This first contact was very violent with several hundreds of Marquesans being killed by the Spanish. The islands remained undisturbed for hundreds of years until Captain James Cook visited the Southern Marquesas in 1775, while the Northern Marquesas were not discovered until 1791 by American Captain Joseph Ingraham on board a whaling ship. Ingraham named the group the Washington Islands and claimed them for the United States, but this was never ratified. However, this led American Naval Captain David Porter to try and reclaim the Northern Marquesas while at war with the British in 1813. Porter built a settlement and fort called Madisonville, on Nuku Hiva. This little-known episode of American history is the subject of a short mini-documentary we shot at Nuku Hiva as a corollary to our expedition and will be discussed in greater detail later in this report. Other famous visitors to the Marquesas are Herman Melville, Robert Louis Stevenson, Paul Gauguin, Jack London, and Jacques Brel, all of whom recorded the traditional way of life.



Portrait of Alvaro de Mendaña

(Madrid Naval Museum)

Of all the diseases that arrived to the Marquesas, the most deadly was smallpox, which arrived in 1864, when Peruvian blackbirders knowingly repatriated three Marquesan men who had previously been kidnapped and infected in the port of Callao before being returned home. The epidemic spread quickly with dear consequences for the local populations. According to missionaries settled in the Northern Marquesas, this disease killed 60-70% of the local population, while some settlements, such as Hatu Atua and Anaho in Nuku Hiva, were completely depopulated. In addition, cannibalism and inter-tribal warfare continued until nearly the 1870s in some remote valleys, leading to a rapid decrease in population. Furthermore, Chinese workers who were brought to work in European vanilla and copra plantations introduced opium to the islands, and many Marquesas became addicted to its use. By the 1900s Marquesans seemed to be in danger of extinction. Fortunately, this did not happen. Present-day Marquesans feel very proud of their heritage, history, and traditions and have formed several cultural organizations dedicated to the preservation, enrichment, and diffusion of Marquesan culture, which is very much alive in all of the Marquesas today.



Marquesan youths at Tohua Koueva, Taiohae, Nuku Hiva
(Photo Edmundo Edwards)

Rock Art in the Marquesas

The ancient Marquesans had a special relationship with the environment. Rocks, like all things in nature, were believed to grow the same as people and plants. Oral traditions and chants relate how the first stage of cosmic evolution was the growth of *papa* (rocks). Stone was considered the best media to represent supernatural beings such as gods and deified ancestral spirits, and were often considered to be the dwelling places of supernatural entities. Stone carving was so important that certain rituals were observed when quarrying stone, and carving activities were accompanied by special chants and ritualistic observances. Stone and wood carvings were carved by trained specialists called *tuhuna ta'ai tiki* (image makers) however, not all petroglyphs display the same fine carving techniques.



Tohua Kamuiheu, Nuku Hiva

(Photo Alexandra Edwards)

Stones had proper names and were considered sacred in and of themselves, even if no man had ever worked them. Some rocks, because of their form, color, texture, or location were considered to be endowed with more supernatural power (*mana*) thus a smooth rock surface was not necessarily a prerequisite for carving figures. Often rough rocks that appear unsuitable were pecked while nearby rocks with smooth surfaces were left untouched. Carved stones were often re-cycled into the construction of a new house or ceremonial plaza.

The accumulated rock art inventory from the Marquesas Islands exhibit a sophisticated and rich carving tradition. Petroglyphs, which are by far the most common form of aboriginal rock art, have been recorded on all the islands that have been archaeologically surveyed. Possibly due to a higher concentration of work being carried out on Nuku Hiva, most of the sites have been registered there. Our team recorded petroglyphs at Tohua Kamuihei by light-painting them at night, which accentuates the many figures carved on the stones.



Light-painted petroglyphs on a boulder at Tohua Kamuihei, Nuku Hiva
(Photo Linda Alexander)

Previous to E. Edwards and Sidesel Millerström's studies in the 1990's, no systematic rock art research had been attempted in the Marquesas Islands, although some related studies were sporadically conducted and published mostly in the 1920s and 1950s. The first to mention engravings on stone and trees was Louis-Frédéric Émile Tautain, a French colonial administrator in the Marquesas in the 1890s.

However, no reference to petroglyphs were made until the 1920s when Edward S. Craighill Handy and Ralph Linton, both members of the Bayard Dominick Expedition of the Bernice P. Bishop Museum, spent nine months on the islands gathering ethnological and archaeological data. Craighill and Linton were the first to mention and record petroglyphs. However, locals were unwilling to show foreigners their old ceremonial sites at the time, and the residents of Hatiheu on Nuku Hiva told Linton that they did not know of any petroglyphs there. Since so few petroglyphs were found, Linton felt it was of little value to classify the carvings and he declined to speculate on their function. It was not until late 1950s that modern archaeological excavation was conducted in the archipelago. Pioneering stratigraphic excavation was done by Robert C. Suggs, a member of the American Museum of Natural History Expedition to the Marquesas in the late 1950s. Suggs' conducted the first extensive examination of the rock carvings on Nuku Hiva. He compared his rock art data with similar material from east Polynesia and speculated on a link with Melanesia. Since then a total of 25 petroglyph sites have been recorded by several authors who have contributed to the knowledge of Marquesan rock; they are: Thor Heyerdahl and Bengt Danielsson in the 1950s, Marimari Kellum-Ottino in 1971, Jean-Louis Teuruarii Candelot in the 1980s, Barry Rolett in 1986, and most recently François Ollier.

Marquesan petroglyphs and pictographs have been classified into 14 main categories with several subtypes:

- | | |
|---|--------------------------|
| 1. Anthropomorphic Stick Figures | 8. Marine Animals |
| 2. Square Bodied Anthropomorphic Figures | 9. Winged Creatures |
| 3. Double Outline Anthropomorphic Figures | 10. Material objects |
| 4. Open Body Anthropomorphic Figures | 11. Geometric Design |
| 5. Naturalistic Human Figures | 12. Botanical Forms |
| 6. Anthropomorphic Body Parts | 13. Unidentified |
| 7. Land Creatures | 14. Architectural Images |



Geometric motifs on a boulder at Kahuvai, Nuku Hiva
(Photo Alexandra Edwards)



Human figures at Kamuihei

(Photo Linda Alexander)

Contrary to common belief, geometric designs, not human representations, are the dominant petroglyph motif in the Marquesas. More than 65% of the Marquesan rock art inventory depicts curvilinear geometric motifs rather than lineal. This is also reflected in the highly developed tattoo patterns described by early explorers. Roughly 22% of the figures depict humans or perhaps deified ancestors. Couples carved in bas relief on rectangular slabs (*ke'etu*) often form part of a wall on some stone house foundation (*paepae*). They may represent the union between two important people or an alliance between two tribes. It is tempting to interpret petroglyph panels depicting

anthropomorphic couples surrounded by smaller figures as representing a family or a clan, however they may represent different social classes and their meaning is uncertain. *Mata komoe* or human faces are a common petroglyph motif, the head being considered the most sacred part of the body, where the *mana* was stored. The heads of some human figures are noticeably absent and may represent victims of human sacrifices. According to ethnographic sources some petroglyphs commemorated specific events, thus a fishing scene showing a human connected by a line to a fish might have depicted a particular fishing event. It is also possible that these designs were carved to ensure good luck in fishing. Fishing scenes are not common, and they always represent off-shore fishing of pelagic fish such as tuna, dolphin, or shark. Some zoomorphic petroglyphs represent whales, sharks and rays, as well as large pelagic fish that were sacred to certain Marquesan groups since they were considered the incarnations of ancestral spirits or tribal gods. Turtles and octopus on the other hand, were sacred food for the gods and could only be eaten by the privileged elite. Some petroglyphs show a dog, bird or fish with one or more human figures entering or coming out of the lower center part of the body, as if they were attached by umbilical cords. This certainly could represent a lineage symbol, as many people had names such as Atike'a (descendants of the crab), Manu (bird) or Puhi Oho (savage eel). Representations of dogs in combination with anthropomorphs are found in isolated locations on Hiva Oa and Ua Huka and in great numbers on the north coast of Nuku Hiva. Dogs may have been part of the local deities in these areas. Dogs and pigs were considered pets, but also food, and were often sacrificed and eaten in important ceremonies. Dog bones, have been excavated in early archaeological levels on several of the islands although they are not mentioned in any of the extant oral traditions, and dogs were extinct by the time of Western contact.



Turtle petroglyph at Kamuihei

(Photo Linda Alexander)

The majority of Marquesan rock art is located in places where people lived and worked, in full view of the inhabitants and visitors. However, some petroglyphs are hidden high up in the mountains. In fact, rock art researchers in the Marquesas have found that petroglyphs are not restricted to specific sites and may be found in several different kinds of locations in both the public and private domains, indicating a both secular and sacred function:

1. In outcrops along mountain ridges near ancient inter-valley trails (usually unrelated to architectural remains).
2. On stones recycled into raised platforms (*paepae*), which are part of a *tohua*, or on individual stones near a *tohua*.
3. On small isolated raised stones platforms, or hillsides terraces (*me'ae*)
4. On large boulders in seasonal streams or next to permanent rivers.
5. On the walls of rock shelters together with pictographs. (Eiaone, Hiva Oa)
6. On isolated stones, apparently unrelated to local architectural or geographic features.
7. On small portable stones, found near raised house foundations.
8. On an isolated red tuff stone source (Fatu Hiva).
9. On the calcareous formations near the mouth of a stream. (Hatu Atua, Nuku Hiva).
10. On the walls of rectangular or circular pits of unknown use, usually located inland, and isolated from other structures.

Although petroglyphs are found in all of the above-mentioned contexts, most of them are located around major waterways in the most fertile part of valleys. The largest concentration of rock art is directly associated with ceremonial structures. When petroglyphs are carved on large boulders, usually the biggest one in the site was chosen and several sides of the stone were carved. A few large boulders however, may only contain one small figure in a corner of the rock. Superimposition, though relatively uncommon, is present and may have a panel richly carved with a myriad of figures. Overlapped carvings often give us an indication of how styles change over time. Interestingly, an overwhelming majority of rock art panels in Hatiheu face north and towards the ocean, although according to ethnographic sources there was no name for a northern direction in the Marquesas, nor did it have any special meaning.



Team member Alexandra Edwards recording petroglyphs on a boulder with geometrical motifs at Kahuvai, Nuku Hiva
(Photo Edmundo Edwards)



Tiki on a tomb on private property, Hiva Oa
(Photo Linda Alexander)

Due to difficulties associated with transportation to isolated valleys, environment, climatic condition, and the high cost of conducting research on these islands, different field methods have been used and modified in order to improve recording speed and accuracy. Since the sites had all been duly registered in written form and properly mapped, our aim was to digitally photograph as many petroglyphs as possible since the only existing complete photographic record of these sites disappeared in a fire in the late 1990s. The idea is to ultimately process the photographs with digital imaging

technology to enhance any remains of natural pigments the petroglyphs may still contain and eventually build a library of all the lost images. Additionally, we recorded a few *tiki* which are now in private property.

Our team registered petroglyphs in the remote western part of Hatiheu valley, known as Kahuvai. We photographed petroglyph panel H15 in site 331, which depicts several fish figures with 1-4 cupules on their backs depending on the size of the figure. A carved dog appears in the same panel. Two more dog petroglyphs were recorded in a nearby panel, as well as other fish figures. Dog motifs have also been recorded on Ua Huka and Hiva Oa, but are



Dog petroglyphs at Kahuvai, Nuku Hiva
(Photo Alexandra Edwards)

especially prominent on the north coast of Nuku Hiva. The dogs are always shown in profile with an extended body and neck. Typically a long tail curves over the back and the ears are pointed. The muzzle can be square, pointed, or round. Either four or two short and stocky legs are depicted. Human are often depicted on the same rock art panel as dogs and are sometimes connected. On the other hand, the fish figures of Kahuvai resemble orca, although they most likely represent a god related to a story recorded by E. Edwards, told by the late Charles Falchetto of Taipivai in 1989.



Fish designs at Kahuvai, Nuku Hiva

(Photos Alexandra Edwards)

According to Falchetto, fish gods lived on the sandy shores of Aakapa, the valley directly west of the petroglyph site. Falchetto noted that the people of Aakapa dove into the ocean and swam to the abode of the fish gods, tickled their bellies, and if satisfied the fish god would then re-surface with one or more holes filled with lobsters running down its backbone (depending on its size), which the locals collected and ate.

We had planned to hike to six rock shelters on the east mountain ridge of Eiaone Valley, Hiva Oa, where the only pictographs known to date in French Polynesia, are located. Some 99 anthropomorphic figures, quadrupeds, marine animals and geometric design are painted on the back walls of the rock shelters with a reddish pigment, which over time has faded into a stain. Unfortunately, these figures are located on private land and despite our many efforts to contact the owner before and during our expedition, our attempts were futile and we had to postpone this work for the second phase of our expedition.

Rock art is difficult to date, and at present there are no reliable methods for dating petroglyphs. None of the early Marquesas chronicles refer to petroglyphs or pictographs and no one has reported witnessing the carving of petroglyphs. Nevertheless, the knowledge of carving images on stones was probably brought with the first settlers to the Marquesas Islands. It appears that during the early stages of image making, the islanders selected special outcrops and isolated stones in the vicinity of their habitation area. Particular stones may have been chosen for their physical features and location, becoming a sacred place. Most petroglyphs were probably made in the prehistoric period. By examining dated associated archaeological structures, it is possible to tentatively place the rock art within a broad time frame. Face (*mata komoe*) motifs have been found associated with ceremonial sites dating to AD. 1100. The most developed form of this motif occurred during the Classic Period similar to the sculptured images. In cases where stones with petroglyphs were re-used in newer structures, one can only assume that the petroglyphs predate the newer building. On the other hand, superposition is an indication of how techniques and some petroglyph styles have changed over time. Evidence recorded thus far, suggests an evolution of rock art techniques. Pecked, bruised, and pecked-and-abraded lines appear to be the earliest forms of carving techniques, while bas relief or intaglio appears to be developed later.

Sculptured stone images called *tiki* (which today refer to any depiction of a human figure on stone, wood, on cloth, and as tattoo) probably evolved from the tradition of engraving anthropomorphic figures on rocks and carved wooden pillars for houses and other structures. Most of the images are located or associated with structures that have been dated to the Expansion (AD. 1100-1400) or Classic period (A. D. 1400-1790). The Classic period is



Tiki on a tohua at Taaoa Valley, Hiva Oa

(Photo Alexandra Edwards)

known for the development of large megalithic stone structures, carved images, and rectangular cut slabs of red tuff, which were placed on top of the terraced platforms of chiefs and important priests as signs of prestige. Often these slabs would depict one or a couple of naturalistic-looking human figures in bas relief.



Detail of a *tiki* in Puamau, Hiva Oa

(Photo Alexandra Edwards)

Stone sculptures have been found on all the presently inhabited Marquesas Islands, but the largest concentration of carved images is found on Hiva Oa. Over 81 images, detached heads, and torsos have been documented on Hiva Oa, with over a dozen more recorded on the other islands. Despite numerous local variations, typically the head of a *tiki* is carved with attention to the smallest details such as tattoos and headbands, while the rest of the body may be crudely carved. The size of the head is generally 1/3 of the body, and rests directly on square shoulders with no neck. Several images have a flat head, which was possibly used for placing offerings or a "crown" of shells, teeth, bones or plant material. Permanently carved decorations are intricately carved wreath or necklace (*hei*). Special attention is paid to the carving of eyes, which are usually round and bulging, encircled with wide-raised rims under high arched eyebrows.

Marquesan statues also usually have a broad flat nose with nostrils that fill out most of the center of the face. A long, wide, and oval mouth, sometimes with a protruding tongue, covers the lower part of the face. Many of the images have geometric tattoo designs finely incised on the sides of the mouth, chest, or on the thighs. Breasts and nipples are not to be missed, and the back of the figure often has a spine and buttocks carved on it, regardless of the placement of the statue. Some of the images have the arms separated from the torso, while on others the arms are hardly indicated. Hands with fingers are sometimes placed stretching across a protruding abdomen, the seat of ritual knowledge. Little detail is apparent on the legs, which are usually stubby and flexed below a wide pair of hips, if they appear at all. Circular knobs sometimes represent ankles and a few of the images have toes. Many Marquesan statues are secured into the ground by a long projection. Sizes vary between 0.14-2.5 meters above the ground. Each statue was named after the deified chiefs/chiefs or inspirational priests/priestess they represented. Few of the names however, are remembered today.



Remote *tiki* between Aakapa and Hatiheu, NH
(Photo Linda Alexander)

Although we managed to record and photograph several petroglyphs and *tiki* in different valleys of Nuku Hiva and Hiva Oa, some of them in very remote areas, our project was more ambitious than we realized and we were unable to accomplish the many goals that we had set for ourselves during our brief visit, particularly with regards to the pictographs at Eiaone valley in Hiva Oa. For this reason we have split our expedition into two stages; we are confident that with a second expedition we will be able to successfully record and photograph a significant portion of the “lost” rock art inventory of Hiva Oa and Nuku Hiva, including the many statues, petroglyphs, and pictographs located in smaller valleys with difficult access.

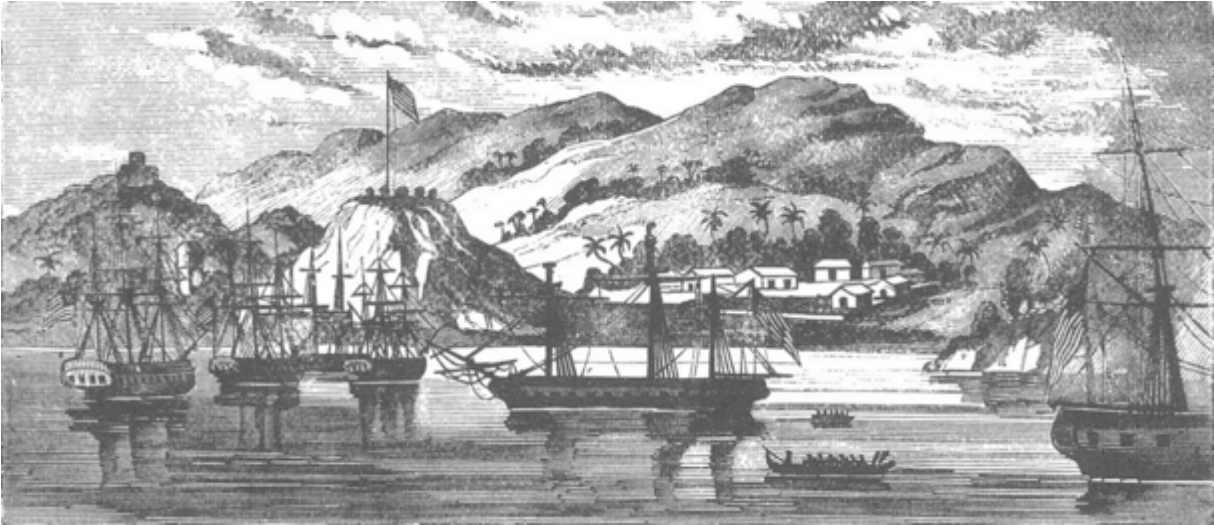
David Porter and the founding of Madisonville: The Adventures of an American Patriot in the South Seas

A little known chapter of American history are the exploits of US Navy Captain David Porter in what is known as the Nuku Hiva Campaign during the War of 1812, of Star-Spangled Banner fame. One of the corollaries of our expedition was to film a short mini documentary about Porter's adventures in Nuku Hiva and follow Porter's tracks in Taiohae, and Taipivai. The mini documentary, which also features an interview of E. Edwards regarding Porter and the Nuku Hiva Campaign are in the process of post-production. The mini-documentary entitled "Madisonville Revisited: The Adventures of an American Patriot in the South Seas" is being shot for educational purposes only. The following is the story we hope to tell in our documentary.



Portrait of Captain David Porter
(Oil painting possibly by William Turnbull)

The ties between the United States and the Marquesas had been forged many years before David Porter arrived to Nuku Hiva, in another obscure episode of American history: the western discovery of the previously uncharted Northern Marquesas by American fur trader Joseph Ingraham on April 19th 1791. A proud American, Ingraham named them the Washington Islands, composed by Washington Island (Ua Huka), Adams Island (Ua Pou), Federal Island (Nuku Hiva), Franklin Island (Motu Iti), Knox Island (Eiao), and Lincoln Island (Motu One). Preceded by years of diplomatic disputes after the American War of Independence, the United States declared war on the British in 1812 in a confrontation that would last no more than 32 months. In January 1813, American Naval Captain David Porter, commanding the frigate USS *Essex*, was sent to disrupt British whaling interests off South America and the Galapagos Islands. After spending a few months warring on British whalers and releasing American prisoners of war who had been captured at sea, he received national acclaim for capturing the first British warship of the conflict, the HMS *Alert*, on August 13, 1812. By October 1813, the *Essex* was in serious need of repairs so Porter headed for Nuku Hiva, clearly with American annexation in mind. With eleven vessels in tow and carrying more than 250 American officers and sailors, over 40 marines, and several freed American prisoners together with the crews of a captured British corvette, Porter arrived to Nuku Hiva on October 25th, 1813 and renamed it Madison's Island after President James Madison who was governing at the time.



Madisonville 1812, engraving from Porter's published journal
(Engraving by Anonymous after a drawing by David Porter)

Less than a month after his arrival to Taiohae Bay on Nuku Hiva, Porter inaugurated the first American naval base in the Pacific, Fort Madison, as well as a small settlement, named Madisonville. For our mini documentary, our team visited and recorded footage at the site where Fort Madison was located, over a promontory on the western end of Taiohae. The bay, which was renamed Massachusetts Bay, was controlled by Chief "Gattanewa" of the Te I'i clan at the time of Porter's visit. "Gattanewa" demanded that the Americans become his allies against the Hapa'a in exchange for letting Porter build Madison Fort. Porter not only allied himself with the Te I'i, he pronounced them subjects of the United States once he officially laid claim to Nuku Hiva on November 19th 1813. The American involvement in the tribal wars between the Te'i'i, Hapa'a, and Taipi clans is known as the Nuku Hiva Campaign. The Americans befriended the Hapa'a in November 1813 and the alliance with Te'i'i was short-lived with confrontations breaking out in May 1814. Porter succeeded in defeating the Taipi, who had a reputation of being ferocious warriors, and were often at war with the Hapa'a and Taoua tribes. Porter's support of the Hapa'a enabled the Hapa'a chief, Keata Nui, to impose sovereignty over the entire island. Nevertheless, the tribes rapidly regained their independence when Porter left the island.

On the first week of November 1813, while Madisonville was still being built, several hundred Te I'i warriors accompanied an expedition led by Lieutenant John Downes and Marine Lieutenant John Gamble with a platoon of about 40 marines whose purpose was to drag a wheeled 6 pound cannon up to an enemy tribal fort located high up the mountains and guarded by 3,000 to 4,000 Hapa'a warriors. The assault on the fort was successful with only two Americans being hurt in the confrontation, and only five enemies killed by Downes' men although the Te I'i reportedly massacred the wounded with clubs. Over the next few days, the Hapa'a

chiefs offered a truce and agreed to fight the Taipi alongside the Americans and Te I'i. Porter's fleet, together with 5,000 Hapa'a and Te I'i warriors and at least 200 war-canoes, attacked the Taipi settlements on the coast. Porter then led thirty-six Americans, hauling a cannon once more, to a walled Taipi fortress. The Americans and their allies were ambushed in a jungle near the fort and encountered greater resistance the farther they went, until they eventually made it to the fort, fighting a pitched battle for several hours. The Taipi were able to repel the attack, with the Te I'i and Hapa'a leaving the 36 Americans to fend for themselves, resulting in one American being killed and two wounded. Our team was able to photograph the infamous Porter Expedition cannon, which was abandoned in Taipivai during Porter's struggle with the Taipi. It is now in the home of the family that found it.



The Porter Expedition cannon, hauled up to Taipivai in November 1813 by Porter and his men.
(Photos Alexandra Edwards)

The Te I'i and Hapa'a warriors began to turn on the Americans soon after the defeat, leading Porter to fear for Madisonville. In order to prove his authority, Porter led most of his men and a few Te I'i on an overland nighttime hike up to Taipivai, the heartland of the Taipi settlements. The attack had to be postponed since the following day was rainy and moisture had temporarily ruined the gunpowder. The attack began on November 30th, and this time despite another ambush the Americans and Te I'i subdued the Taipi who after ignoring a message warning them of the consequences of not calling a ceasefire, had several of their settlements burnt. Taipi emissaries were sent soon after, carrying "countless" hogs as a peace offering.



Queen Paetini of Taiohae, Nuku Hiva
(Portrait by the art staff of Adm. Dumont d'Urville)

By December 1813, the USS *Essex* was fully repaired and ready for sailing. However, many of the sailors were not enthused to leave their newly-found local love interests. Porter himself was not free of these adventures, having engaged in a sexual relationship with Paetini, the 15-year-old daughter of a Te I'i chief, and who according to some accounts had a child by David Porter. Porter had to suppress talks of a mutiny by Royal Navy sailor Robert White aboard the *Essex Junior*. With provisions waning, Porter set sail for Valparaíso on December 9, 1813 with 250 loyal men, promising to return with procurements. Three ships remained on Nuku Hiva, the *Sir Andrew Hammond*, the *Seringapatam*, and the *Greenwich*, under the command of Lieutenant Gamble, two midshipmen, 19 sailors (both American and British) and 6 British prisoners. On May 7th 1814, the British sailors mutinied, releasing the six prisoners and attacking Fort Madison before leaving on the *Seringapatam*. Meanwhile a British man by the name of Wilson who had been living in Nuku Hiva since before Porter's arrival had been turning Te I'i against the Americans, so that on May 9th, six American sailors were attacked by the Te I'i, only two escaped alive, with one of them wounded. Gamble who had been hurt on the foot by the British mutineers, managed to repel two war-canoes that approached the *Sir Andrew Hammond* for an attack, and he abandoned Madisonville the next morning leaving eight men on shore who reportedly were either wounded or ill.

Porter never returned to Nuku Hiva as he and his men were captured by British Captain James Hillyar at the Battle of Valparaiso, Chile, on March 28th, 1814. Upon his eventual return to the United States, Porter petitioned Congress to annex the islands to no avail. Thus ended the adventures of an American patriot in the South Pacific. The British mutineers eventually arrived to Australia where news that the Marquesas were covered with dense sandalwood forests attracted many unscrupulous traders to the islands who were met with a declining indigenous population that offered little resistance. Nuku Hiva was also visited by numerous whalers, Herman Melville among them. In 1842, Melville deserted his ship and remained three weeks with the Taipi, in the same valley that had been attacked by Porter 29 years before. Melville wrote *Typee*, which was partly based on his experiences there and which was Melville's most popular work during his lifetime.

The Following is a list of the lectures that we offered during the expedition

Expedition Lectures

"The peopling of the Pacific" by Alexandra Edwards

"Eastern Polynesian Mythology and Religion" by Edmundo Edwards

"Archaeology and History of the Marquesas" by Alexandra Edwards

"Paul Gauguin: His Life and Art" by Lynn Danaher

"Wayfinders and Skywatchers: Polynesian Arqeastronomy" by Alexandra Edwards

"The Art of Polynesian Tattooing" by Alexandra Edwards

Bibliography and Future Reading

Candelot J. L. Teuruarii Tamatoa, 1980. "Note préliminaire sur les pierres gravées de Tubuai," *Journal de la Société des Océanistes*

Cox, H.J. and E.Stasack, 1970. "Hawaiian Petroglyphs," Honolulu: *Bernice P. Bishop Museum Special Publication*, 60

Danielsson, Bengt, 1954. "Contributions to Marquesan archaeology," *Journal of the Polynesian Society*, 63:75-76

Dordillon, Mgr.R.I.,1931. Grammaire et Dictionnaire de la Langue des Iles Marquises, Marquisien-Français, Institut d'Ethnologie. Paris

Edwards, Edmundo, 1985. "Prospection archéologique du *me'ae* Pehe kua, Puamau, Hiva Oa," Département Archéologie, C.P.S.H. Tahiti

Edwards, Edmundo, n.d. "Prospection archéologique de la vallée d'Eiaone, Hiva Oa," Département Archéologie, Département Archéologie, C.P.S.H. Tahiti

Edwards, Edmundo, n.d." Prospection archéologique du la Vallée de Fa'aroa, Raiatea," Département Archéologie, Département Archéologie, C.P.S.H. Tahiti

Edwards, Edmundo, and Sidsel Millerström, 1993. "The rock art of the Marquesas Islands," Département d'Archeologie du CPSH, unpublished manuscript

Handy, E.S.C.,1923. "The Native Culture in the Marquesas," Honolulu: *Bernice P. Bishop Museum Bulletin*, #9

Handy, E.S.C.,1927. "Polynesian religion," Honolulu: *Bernice P. Bishop Museum Bulletin*, #34

Handy, W. C., 1922. "Tattooing in the Marquesas," Honolulu: *Bernice P. Bishop Museum Bulletin* #1

Heyerdahl, Thor, 1965. "The Statues of the Oipona Me'ae, with a comparative analysis of possibly related stone monuments," Reports of the Norwegian Archaeological Expedition to Easter Island and the East Pacific, Vol. 2, *Monographs of the School of American Research and the Kon-Tiki Museum*, Forum Publishing House, Stockholm, Sweden

Kellum-Ottino, Marimari, 1971. "Archéologie d'une vallée des Iles Marquises; évolution des structures de l'habitat à Hane, Ua Huka," *Publications de la Société des Océanistes*, #26, Musée de l'Homme, Paris

Lee, Georgia, 1995. "Wahi Pana o Hawai'i Nei," *The Rapanui Journal*, 9(2), June 1995

Linton, Ralph, 1923. "The material culture of the Marquesas Islands," Honolulu: *Bernice P. Bishop Museum Bulletin*, #5

Linton, Ralph, 1925. "Archaeology of the Marquesas Islands," Honolulu: *Bernice P. Bishop Museum Bulletin*, #23

Millerstrom, Sidsel, 1985a. "Rock art in the Marquesas Islands: A preliminary report," *La Peinture*, American Rock Art Research Association Newsletter, Vol XII (1)

Millerstrom, Sidsel, 1985b. "Up-date on Marquesas Islands rock art," *La Peinture*, American Rock Art Research Association Newsletter, Vol XII(2)

Millerstrom, Sidsel, 1988. "Rock art in the Marquesas Islands," *Rapa Nui Journal*, 2(3)

Millerstrom, Sidsel, 1989. "Experimental archaeology in rock art," *Rapa Nui Journal* 3(2)

Millerstrom, Sidsel, 1990. "Rock art of Marquesas Islands, French Polynesia: A case study of Hatiheu Valley, Nuku Hiva," M.A. Thesis, University of San Francisco

Rolett, Barry V., 1986. "Turtles, priests, and the afterworld: A study in the iconography interpretation of Polynesian petroglyphs," in Island Societies: Archaeological Approaches to Evolution and Transformation, ed. P.V. Kirch. Cambridge University Press

Rolett, Barry V., 1989. "Hanamiai: Changing subsistence and ecology in the prehistory of Tahuata (Marquesas Islands, French Polynesia)," Ph.D. Dissertation, Yale University

Suggs, Robert C., 1961. "The archaeology of Nuku Hiva," Marquesas Islands, French Polynesia. *American Museum of Natural History, Anthropological Papers*, 49(1).

Thornton, Agathe, 1989. "Some reflections on traditional Maori carving," *Journal of Polynesian Society* #98, (2):147-166

Titcomb, Margaret, 1969. "Dog and man in the ancient Pacific," *Bernice P. Bishop Museum Special Publication*, #59, Honolulu

Acknowledgements

We are greatly indebted to the following people, without which the success of our expedition would not have been possible:

(in alphabetical order)

Yvonne Katupa, Mayor of Hatiheu, Nuku Hiva.

Pierre Lesage, Director Hotel InterContinental Resort, Faaa, Tahiti.

Maeva Navarro, Chilean Consul to French Polynesia.

Rodrigo Navarro, Biologist, Guide, and Translator (Tahiti).

Alphonse "Tioka" Puhetini, Guide and Translator, Hatiheu Nuku Hiva.

We also received great support and collaboration from:

Members of the Agriculture and Tourism Departments of the County Hall of Atuona, Hiva Oa, under Mayor Étienne Tehaamoana.

We heartily thank them all for their counsel, assistance and generosity.

We are greatly honored that we were awarded Explorers Club Flag #83 for our expedition to the Marquesas Islands, and we would consider it a great privilege to count with the support of the Explorers Club for Phase II of our expedition.