FORWARD

When *Petroglyphs of Hawai'i* was first published in 1969 there was very little in print on the subject. In the ensuing years, research has added a great deal to our knowledge of Hawaiian life in prehistoric and historic times. In addition, researchers are much more sensitive to the sacred places and traditions of the Hawaiian people.

The author, Likeke R. "Dick" McBride passed away in 1993 and regrettably could not be consulted with on this revision. The publisher has thus chosen to reproduce the original text with a few notations and additions. This was deemed necessary in order to provide readers with more up-to-date information concerning the location, treatment and study of Hawaiian petroglyphs. For instance, McBride used the term *kaha ki'i*, translated as drawn or scratched picture, for petroglyphs. However, the most recent edition of the Hawaiian-English dictionary lists the term *ki'i pohaku*, stone image as the more appropriate term. The author's son, Andrew S. McBride, provided valuable assistance in the revision, calling upon his experiences accompanying his father in the field as McBride conducted his research, as well as offering his skills in editing and proofreading.

Since 1969, the development of the island of Hawai'i and the incursion of lava into petroglyph areas have made changes to some of the more important petroglyph sites in Hawai'i. The continued eruption of Kilauea volcano has covered up the petroglyph site of Pu'u mana wale'a (hill of rejoicing) and hundreds of petroglyphs along the coast within Hawai'i Volcanoes National Park and continues to threaten the famous Pu'uloa petroglyph field. Resort development in the South Kohala and North Kona areas has greatly impacted the formerly remote petroglyph sites at Puako, 'Anaeho'omalu and Ka'upulehu. To the credit of the developers, some care was taken to preserve the cultural heritage of the surroundings as the resorts were planned. However, vandalism to petroglyphs in these areas is on the rise, pointing to the need for education concerning the treatment of petroglyphs.
It was formerly common to make rubbings or even castings of petroglyphs. Because this causes permanent damage to the images these practices can no longer be encouraged. For this reason, it was decided to delete the information concerning rubbings and castings that was found in the original text. Many of the sites are located in extremely dry areas, where even using chalk to define a petroglyph may leave an impact for years to come. Natural erosion coupled with the impact of visitors simply walking through have taken a toll on many of these sites.

New information concerning Hawaiian petroglyphs continues to accumulate and public interest in petroglyphs has never been stronger. Researchers have long taken an interest in the subject. One of the best sources of information is *Hawaiian Petroglyphs*, which was first published in 1970. This informative book was written by J. Halley Cox and Edward Stasack, who were both with the art department at the University of Hawai'i. Cox and Stasack combined ethnographic accounts with their own observations to propose some probable functions for petroglyphs in Hawai'i. Stasack has continued to play an active role in the study of petroglyphs, recently recording sites on the islands of Hawai'i and Kaho'olawe.

Since 1980, Georgia Lee, an art historian at UCLA, has been active in recording and documenting petroglyph sites in Hawai'i and Easter Island. Lee's emphasis is on both documenting the petroglyphs and determining why they were only created in certain locations. This includes her observation that petroglyphs exhibit regional styles that may provide clues into specific functions for petroglyphs produced in different locations. For instance, the profusion of sails at Ka'upulehu indicates to her that sailing canoes were of special import there, possibly representing a school for sailing or navigation. Lee has also developed a typology of Hawaiian petroglyphs for a computerized data base of petroglyph sites and individual motifs.

The study of petroglyphs is also of interest to archaeologists in Hawai'i. The specific patterning of petroglyphs along
boundaries, trails and sacred sites, provides clues to archaeologists into their possible function as markers and use in sacred ceremonies. Stylistic patterning of motifs may also eventually aid in developing regional petroglyph typologies for individual islands. In addition, new dating techniques have proven invaluable in estimating when petroglyphs were made. This aids archaeologists in the relative dating of associated archaeological sites (i.e. such as a house site that is built over a petroglyph field).

Stasack and Cox developed a relative dating technique unique to petroglyphs in Hawai'i. The age sequence is based on the superimposition of petroglyphs and places linear motifs as the oldest, followed by the triangular figures and muscled forms. Recently radiocarbon dating of petroglyphs has been successfully accomplished by using organic matter that has accumulated sequentially inside the petroglyph since it was first made. This method (AMS 14C varnish dating) first attempted in Australia, has been successfully used to date petroglyphs on the islands of Kaho'olawe and Hawai'i and promises to yield more dates for petroglyphs in the islands.

The best time for viewing petroglyphs is early morning or late afternoon. The more dramatic lighting makes it ideal for photographing and the hot, dry climate prevalent at most sites is more bearable. Petroglyphs are an important resource to all people of Hawai'i and care should be taken when walking near them. Tread lightly and carefully when visiting petroglyph sites, and treat them with respect and aloha.

By Christine Reed, Publisher and Catherine Glidden, M.A., Archaeologist
INTRODUCTION

The word petroglyph is derived from the Greek roots, *petros* - stone and *glyphe* - carving. The term especially applies to pictures and symbols cut into a rock surface by the people of prehistoric time.

Some of the oldest of these found are the engravings of glacial age animals carved in European caves 10,000 years or more ago. The soft rock of the cavern walls permitted full exercise of the artists' ability to reproduce realistically bison, mammoths, deer and horses hunted for food during that time. Some of these etchings were perhaps merely for the decoration of sacred places or living sites. Most, however, appear to have been for the purpose of insuring good luck to the hunters, upon whom depended the livelihood of the entire group.

The world's petroglyphs belong largely to the Stone Age, but since the knowledge of metals arrived in different places at different times, the Stone Age may be said to be nearly coincident with the length of time man has existed.

In 1627 Peder Alfson, a professor, wrote a letter to Ole Worm, the father of prehistoric studies, describing the rock drawings in the province of Bohuslan in southwestern Sweden. Included with his letter were rubbings of the rocks that constitute the earliest reproductions of Bronze Age petroglyphs. The figures carved in the rock depict vessels, animals, carts, weapons, and the humans who inhabited the southwestern coast of Sweden between 1000 B.C. and 500 B.C. Recently it has been demonstrated that they are a part of a culture spread entirely across northern Asia to the Pacific.

*Petroglyphs of Hawai‘i* is not intended as a definitive study of a forgotten art. Almost anything written about petroglyphs seems assured of raising more questions than answers. Perhaps like much of our art today, they could only be explained by the artists who made them.
Pu'uloa was a village
Papalauahi a sleeping place
A shed for Kilauea
When Pele came in the night
Tossing and turning the humpback waves.

*ancient chant*

Pu'uloa (long hill) is not a village today and can barely be termed a hill, but it is "peopled" by a multitude of two-dimensional figures called petroglyphs carved into its smooth pahoehoe lava surface. Today, when Pele, the Hawaiian goddess of volcanoes, sends rivers of melted rock down the *pali* from the flank of Kilauea, archaeologists, artists, Hawaiiana buffs and art lovers all hope together that the petroglyph field of Pu'uloa will be spared.

The carvings in stone are scattered throughout more than 100 places in the Hawaiian Islands and constitute the only prehistoric art not owned by private collectors or enclosed in museums. Because they remain out in the open where they were made, they are particularly vulnerable to vandalism, the elements and, on the island of Hawai'i, being covered by lava flows.

In the Hawaiian language the petroglyphs are called *kaha ki'i*. *Kaha*-to scratch, mark, draw or cut, and *ki'i* - picture or image- literally meaning "drawn picture". Petroglyphs were made in different ways depending on the hardness of the rock surface to be worked upon. Dr. Kenneth Emory of the Bishop Museum recognizes three methods which he calls pecking, bruising and abrading. Pecking or
hammering on *pahoehoe* lava with a dense, hard beach pebble breaks up the cells or vesicles of the surface and can produce a deep design.

On a glazed surface, such as the lining of a lava tube, bruising or gentle scraping effects a color change. Abrading is hammering and cutting the surface of the lava with a filing or scraping motion.

The term *kaha kiʻi* may also be applied to pictures scratched in the sand. In Hilo, Hawaiʻi, between Coconut Island and Leleiwi Point, is a beach named Onekahakaha, which means "picture drawing sand." It has undoubtedly changed a great deal in appearance since the people of old scratched pictures there.

Drawing was probably so commonplace in old Hawaiʻi that it is rarely mentioned in tradition. It is used as a point of explanation in one of the oldest stories concerning the islands. In the legend of Aukelenuiaiku, it becomes necessary for him to leave his homeland and find a new place to live. On the beach his grandmother draws a map in the sand showing him the far places beyond the sea.

Sand was probably the most common drawing medium in olden times. While a piece of coral or a sea urchin spine scratched on black lava gives great contrast, it is difficult to correct and almost impossible to erase. A drawing in sand was temporary, of course, but the sand could be used over and over. When permanence was desired, stone was probably the material used. Tradition tells us that the *heiau* (temple) was first designed in sand before a stone was moved toward its construction.
Drawing pictures in the sand was still a popular amusement for small boys during the early 1800's. John Papa 1i, in his *Fragments of Hawaiian History*, tells of a day in his youth spent with two companions making sand drawings of the sailing ships in Honolulu harbor.

While sand sketches were probably made *pi'ani wale no* (just for play), there were other times perhaps when pictures were desired for a more serious purpose, such as permanent decoration. In the collected articles of S. M. Kamakau titled "*Ka Poe Kahiko,*" the author discourses on the disposal of corpses in ancient times. "There is only one famous hiding cave, *ana huna* on O'ahu. It is Pohukaina... This is a burial cave for chiefs, and much wealth was hidden away there with the chiefs of old... Within this cave are pools of water, streams, creeks, and decorations by the hand of man (*hana kinohinohi'ia*), and in some places there is level land."

Petroglyphs? Perhaps.
By observing a few common sense rules the life of the petroglyph may be extended.

Rock surfaces are fragile, weathered and crumble beneath your feet: avoid walking on the petroglyphs. Improperly done rubbings can discolor and damage the rock.

By observing from the boardwalk, you are helping to preserve them for future generations to enjoy.

The sign placed at the site of the Pu‘uloa petroglyphs states well how petroglyphs should be viewed.
PETROGLYPH PLACES

There is little wonder that many of the early travelers to the islands do not mention seeing Hawai‘i's rock pictures. The conspicuous ones seem to be in out-of-the-way places, while those that are readily accessible go unnoticed unless they are pointed out. Of the multitude of visitors that have stopped to look at the huge lava block in the lawn in front of the Hawai‘i County Library in Hilo, only a few have mentioned the petroglyph deeply carved in the upper face.

The large tabular rock is the Naha Stone, reputedly brought to the island of Hawai‘i from Kaua‘i by the high chief Makaliunuikualawalea in ancient times. He transported the sacred stone by double canoe from its resting place near Kaua‘i's Wailua River to Ponahawai, where the city of Hilo stands today, and placed it near the temple of Pinao.

The Naha Stone was said to be used in a test to determine if a baby was legitimately of Naha rank of royalty, but it gained the fame it has today as the rock was overturned by Kamehameha the Great to prove he could rule all of Hawai‘i's islands.

By far the largest concentrations of petroglyphs are to be found on the island of Hawai‘i. Several sites are readily accessible and present informative interpretations while also attempting to protect the petroglyphs from damage beyond the natural weathering that occurs over time. The billowing pahoehoe lava flows offered a readily carveable surface for the artists. The hard basalt surfaces on which petroglyphs are found on the other islands required different techniques. Many petroglyph sites throughout Hawai‘i are located on private property. Permission may be required to reach them. Please be respectful of both the place and the landowner's rights.

From a cave near Pahala, Hawai‘i

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HAWAI'I

PU'ULOA - The Pu'uloa site boasts the highest concentration of petroglyphs in Hawai'i. This area is reached by driving through the Hawaii Volcanoes National Park and down the Chain of Craters road toward the present eruption site. Watch for the Emergency Telephone signs about 19 miles from the park entrance. The old coastal trail used by Hawaiians is a reddish trace winding between billows of pahoehoe lava on which you can walk to the petroglyph area, about .7 mile (about a twenty minute walk). A wooden boardwalk has been constructed to afford visitors an elevated view of the petroglyphs while preventing further damage to the fragile images. Take along plenty of water -- it can be desiccatingly hot and dry. If you follow the Apua Point trail across the road from the parking area toward the sea, you can find petroglyphs within a five to ten minute stroll.

The circles and dots appear to be the oldest petroglyphs and may be the depository of the piko (navel cord) of a baby to take advantage of the figurative meaning of Pu'uloa (long life), while others may be a record of a trip around the island.
PETROGLYPHS AT PU'ULOA, HAWAII
Many visitors may have passed this place in olden times on a pilgrimage to the volcano summit by way of the sea-cliff village nearby named Kealakomo (the way to go in). In Hawaiian tradition, when a person recovered from what was believed an incurable illness, he made a "journey of health." This trip included walking through part of Puna, climbing the steep path to Pele's house on the top of Kilauea, and swimming around Mokuola (island of life), now called Coconut Island in Hilo Bay.

The eruption of Kilauea volcano at Pu'u O'o which began in 1983 has sent a series of lava flows down the slopes and into the sea, covering the Chain of Craters road on the Kalapana side of the park. The destruction of the heiau at Kamoamoa was a great loss. The Waha'ula heiau was spared, but is entirely surrounded by new flows. As the eruption continues steps are being taken to map and catalog the petroglyph field to preserve a record of this culturally rich area, should future lava flows move in a westerly direction and cover the site.

On a boulder at
Kamohoali'i, Hawai'i

From a cave near
Ainahou Ranch, Hawai'i

PUAKO -- The Puako Petroglyph Archaeological Preserve in South Kohala is no longer accessible from the village of Puako. The Mauna Lani Resort at Kalahuipua'a has done an admirable job of providing an opportunity for those interested in petroglyphs to enjoy and learn more about them while protecting one of the largest petroglyph sites in the Pacific. An informative brochure and map of the area is available at the resort.

To reach the site, travel to the end of Mauna Lani Drive, 2.4 miles from Highway 19. Watch for the entrance to the
PETROGLYPHS AT PUUKO, HAWAII
Holoholokai Beach Park on the right, opposite The Orchid at Mauna Lani. The park is open 6:30 am to 7 pm. The Malama trail winds through *kiawe* forest .7 miles to the petroglyphs. There you will find an elevated viewing area with a trail circling an enclosure around one of the most highly concentrated areas. Appropriate clothing, footwear, water and sun protection are recommended for this trail.

Numerous petroglyph reproductions have been placed at the beginning of the trail for making rubbings. Please confine rubbings to these reproductions and refrain from disturbing the ancient images.

The pictures that comprise the preserve are widely scattered along both sides of the ancient *Kaeo* trail. One meaning of *Kaeo* is the winning, which is reminiscent of the petroglyphs made on Easter Island to commemorate the annual winner of the contest to find the first frigate bird egg.

In general, the petroglyphs of Puako are thought to be some of the oldest on Hawai‘i because most of the images are
of the linear or stick figure type. One of the interesting groups of these human representations is a file of thirty men each above the shoulders of another. Many of the other drawings appear to be koa (soldiers) wielding various weapons. An old Hawaiian riddle asks, "What is the tree that goes to war?" The answer was, "Koa, which means both a tree and a soldier."

During the ten years' war for Hawai'i, King Kamehameha was opposed by Keoua, a military strategist from the Ka'u district. When the war ended about 1790, Keoua was sacrificed at Puukohola heiau near Kawaihae and later buried at Paniau, Puako.

'ANAEOH'OMALU -- This petroglyph field is about four and a half miles south of Puako, on land developed into the Waikoloa Beach Resort area. Drive .5 miles from Highway 19 to the parking lot at the King's Shops. Information and maps for a self-guided walk are available there or from The Royal Waikoloan and other hotels in the vicinity. It is a short trek to the petroglyphs located adjacent to the golf course.

The Reverend William Ellis probably landed near this place, but, unfortunately, did not see it. Here are many enclosed drawings along with groups of others that may tell a story. The circles and dots described by William Ellis, are also common at 'Anaeho'omalu. Concerning those of Pu'uloa, he wrote, "When there were a number of concentric circles with a dot or mark in the center, the dot signified a man, and the number of rings denoted the number in the party who had circumambulated the island.

"When there was a ring and a number of marks, it denoted the same; the number of marks showing of how many the party consisted; and the ring, that they had travelled completely round the island; but when there was only a semicircle, it denoted that they had returned after reaching the place where it was made."
KA'UPULEHU -- Many unusual petroglyphs are found here on the grounds of the Kona Village Resort. Although the site is not open to the public, prior arrangements can be made through the social department to view the petroglyphs on the tour offered to guests twice a week.

KALOKO-HONOKOHAU -- At the Kaloko Honokohau National Historic Park some younger petroglyphs including a full-rigged ship can be seen. The park can be reached by turning off Highway 19 at the Honokohau Harbor exit. The office is located at the Kaloko Light Industrial area across the highway.

KAHALU'U -- Some of the most accessible petroglyphs on Hawai'i can be found at Kahalu'u (about five miles south of Kailua-Kona), providing the tide is out. Seaward of a curving, gray beach about two hundred yards south of the park...
pavilions is a gently sloping lava flat which is often under water. There is a remarkable variety to the human figures carved there along with phallic symbols and abstract designs. If the pictures are flooded, look along the shore line toward the park and you may find an isolated design.

MAUI

The numerous wide pahoehoe flats on the island of Hawai'i were an almost perfect canvas for the people of old. On the other islands in the group, the native artists had to deal with rocks of a different character. They were obliged to leave their work in shelters, on boulders, and on sandstone flats.

On the sheer bluffs at Nu'u, Hana, Maui, some of the petroglyphs carved into the rock have apparently been painted over with red ocher. In a few places on the island, the painting of symbols was said to be more common. Petroglyphs are found on Haleakala, on West Maui at Lahaina and Kahoma (the thin one), and on Southeast Maui in a shelter cave along Waiohonu Stream.

The collection of petroglyphs at Olowalu is no longer advertised to the public in order to prevent further deterioration and vandalism. A cane field located behind the general store leads to petroglyphs carved into a cliff face. They are located on private property owned by Pioneer Mill Company. Visitors need to obtain a permit at the office between 8 am and 4 pm Monday through Friday.

KAHO'OLAWE

Recent expeditions to the island of Kaho'olawe have yielded the discovery of over 400 petroglyphs not formerly documented. A new dating technique has been successfully used to estimate their age.
LANA'I

Petroglyphs are scattered widely over the island, but most of the carvings are represented at Kaunolu and Luahiwa. Site selection is well demonstrated here, where, for example, the boulder Keaohia is covered with drawings while similar boulders around it are bare.

The bird-headed figures are especially interesting because here only the head is in profile. These are said to represent humans who anciently had the power to fly. Some families now consider them to be aumakua (guardian spirits). Perhaps they might symbolize one of the royalty, who, according to S.M. Kamakau, were entitled to wear a mahiole (feathered helmet).

MOLOKA'I

A provocative story told to John Stokes on the island of Molokai concerns a prophetess named Kalaina that lived near Mo'omomi in olden times. One day she went to the trail and carefully scraped and pounded two shallow depressions into the soft sandstone. The next day, she called the people together to see her work. "See what I have done," she said. "Bye and bye people will come from the sea with feet like these." From that time on the place was called Kalaina wawae (Kalaina's feet). According to the narrator, that was the beginning of the fad of visitors leaving their footprints in that place. Of the hundreds of prints there, only one pair has deeper depressions at one end like the heel-marks of boots.

Petroglyphs are also found in a tiny shelter near Ka Ule o Nanahoa, the phallic rock on the sea-cliff at the northern end of the island.
O'AHU

Some of the most accessible Hawaiian rock drawings are protected in Nu'uanu Petroglyph Park. They are located along the west bank of Nu'uanu Stream at Nu'uanu Memorial Park. These carvings may have been inspired by legends of Kaupe, the ghost dog of Nu'uanu.

A large boulder located along the Moanalua Stream in Kamana Nui Valley is known as Kapohakuluahine. It is carved with petroglyphs and a konane board. Permission to reach the site is required by the S.M. Damon Estate. Please call to notify them if you plan to hike the trail.

The Koko Head petroglyphs are carved into the floor of a sea cave. Viewing requires climbing on sometimes slippery rocks from a scenic pull-off area on Kalanianaole Highway between Hanauma Bay and Blow Hole. Care also must be taken to be aware of dangerous ocean conditions in this area.

KAUA'I

Koloa Beach, called in olden times Keoneloa, is located at Mahalepu, east of the sand dunes and Loran station. It is a curious fact that all of the figures on the pictured ledge are said to have their heads toward the sea. Other petroglyphs are found in the tide water below the temples of refuge at the mouth of the Wailua River. At the turn of the century, Mr. Judd reported five carvings at Papalinahoa, Nawiliwili Bay. Two of these lack heads and two others lack arms.

The easiest petroglyphs to see on Kaua'i are the fine representations in the Kaua'i Museum in the city of Lihu'e.