

Stone Sculpturings in Relief from the Hawaiian Islands.

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A STONE bearing a remarkable pair of petroglyphs was, a few years ago, ploughed up at a place called Puu o Ma'o on the cliff forming the eastern side of Moanalua valley, near Honolulu, and after being taken to the house of the owner, Hon. S. M. Damon, was photographed with that gentleman's kind permission.

The stone is an irregularly shaped piece of rather finely cellular basalt, measuring 31 inches long, 21 wide and 17.5 thick, the face of which has been carefully worn down by hammering with a stone or dull metal instrument, leaving the representations of two human figures in relief (fig. 1, *b* and *a*) the outer surface of which formed part of the original surface of the stone. The workmanship in the two figures differs in regard to care of execution, which is probably due to the fact that fig. 1, *a*, was nearer completion, and, being in higher relief than the other, this would allow greater scope to the dull tools applied. The area enclosed by the bodies, arms and thighs of both figures and the arm and chin of fig. 1, *a*, is higher than the surrounding plane. The sculptured surface might thus be likened to a zincotype well routed out. This would seem to be due to the deficiencies of the tools used.

The height of relief of fig. 1, *a*, varies somewhat, being at finger tip 1.1 inches, between chin and hand .8, chin 1.4, back 1.8, buttocks 2, foot .1 to .3, knee 1.3, between knee and elbow .6, belly .8. The measurement from head to foot is 11.8 inches. In this figure a piece has been recently broken out of the arm, leaving a scar running from the finger to the elbow; but it is still perfectly clear that the hand had only three fingers. It is also evident that an attempt was made to represent the juncture of the wrist and hand by a narrow cross ridge. A comparison with the conventionalized hands of the Maori carved figures might not be out of place. The portion representing the face has been symmetrically chipped away on both sides leaving a blunt ridge running from the forehead to

the upper lip without any distinctive mark to indicate the nose. At the angle of the cheek a piece has been gouged out to represent the eye. The chin has not been worked down and stands higher in relief than the upper lip. The mouth has been chipped at an angle. The head is joined to the shoulder directly above the armpit by a narrow flattened ridge, back of which is a shallow



b FIG. 1. *a*

groove. The portion from the parietal region to the middle of the back has not been finished, as is apparent from the slope of the stone and the rough pits remaining (figs. 1 and 2). The shoulder is in higher relief than the head. The back as far as finished is well rounded. The buttocks are curved well under the figure. There was hardly enough material to carve the whole foot in relief, but a very prominent heel was left. The length of the foot traceable is 2.3 inches. The knee is represented by a straight cut 1 inch long. The edge of the belly was finished at a right angle,

probably by rubbing. The surface of this figure is as smooth as the rough lava would permit, and undoubtedly this effect has been produced by the same process.

Figure 1, *b*, measures 10.2 inches from crown to toe; the height in relief at back is .8 inch, and at belly .5. Unfortunately the outer part of the head has been recently broken off, but sufficient



FIG. 2. BACK VIEW OF *a*.

remains to show that there was no mouth. In contrast with fig. 1, *a*, this head was set firmly on the body. The chin is very angular. The hand appears to have only two broad fingers, wide spread, but probably it is unfinished. The foot is clearly shown in the photograph and is 2.2 inches long. The edge of the belly was squared and the other parts rounded. The carving was nowhere carried under the figure as in *a*. The surface is rough, and has probably not been rubbed. No doubt this figure is incomplete.

That the sculptures were made in these islands there can be little doubt. Though the stone has not been chemically analyzed,

it is of a kind very common at Moanalua, forming a stratum four or five feet thick in the cliff of that valley. It might be surmised that the work was done with stone tools¹ from the pittings on the unfinished portions. Even were a dull metal instrument employed, it might be expected that the pittings would be deeper and that there would be evidence of an occasional glancing blow. It might be mentioned that the numerous imitations of stone idols seen in these days show nothing of the care with which these figures have been carved. The land where the stone was found was uninhabited from the middle of last century until about 1891 (when Mr. Damon's dairy was installed). There is one point yet to be cleared up. Mr. John Cullen, Mr. Damon's rancher, employed two men to prepare the small piece of land for planting, and a number of stones were dug up and used to fence the land, the stone in question, for some reason unknown, being left in the field. These men have since left the country. After their departure, Mr. Cullen, a staunch North Briton, seeing the stone in the field and wondering why it had not been placed in the wall with the others, made an examination and found the sculpturings. If ever the two men are heard from, more may be learned concerning the details of the discovery.

Before accepting the petroglyphs as of Hawaiian conception, it would be well to consider the carving in profile, the squatting position and the detail of the limbs, which place these figures in a class apart from the Hawaiian petroglyphs so far discovered. The native wooden images were carved with a close attention to detail. The stone idols mostly consist of a crudely carved face at the end of a stone, but on all the Hawaiian idols observed, the nose was distinct. In fig. *a* there was sufficient space for the artist to carve a nose in place of the low ridge by which he indicated the central line of the face. In this respect fig. *a* calls to mind the figures on the Marquesan bone carvings and wooden stilt rests. The Rev. Wm. Ellis gives an illustration² of a wooden idol with a long head and similar features, which was secured by Rev. John Williams in Rarotonga. Edge-Partington and Heape³ figure another one,

¹An illustration of shaping poi pounders by chipping with pebbles may be seen in Mem. B. P. B. Mus., vol. i, p. 375, fig. 39.

²Polynesian Researches, London, 1830. Vol. ii, frontispiece, upper right hand corner.

³Ethnographical Album, first series, plate 23, fig. 6.

accredited to the same island, but it is doubtful how much consideration should be given these resemblances.

The carving in profile and position of the limbs of the petroglyphs seem to find close analogy to a figure carved on stone and seen at Orongo, Easter Island, by Mr. W. J. Thompson.⁴ This figure was perhaps another form of the god Meke-meke⁵ which Mr. Thompson says was the most common figure carved at that part of the island. However, an examination of the numerous tablets illustrated in the plates accompanying Mr. Thompson's work will show a character, with variations, closely resembling the former figure, which, from the frequency of its occurrence, might be considered as a representation of a human form portrayed in various acts. Among the Maori carvings, birds and lizards are found in profile, but the conventionalized human figure is always presented with full face, even when the body is seen in profile.

The squatting position of the figures is not uncommon in Polynesia, as seen in these islands, remarked by the missionaries at Tahiti,⁶ by Melville⁷ at Nukuhiwa, and by Rev. Wm. Ellis⁸ at Huaheine.

The sculpturing in relief has already been observed on two Hawaiian stone lamps, one of which was recently purchased by this Museum with the Deverill collection (fig. 3), and the other, with a similar figure on one side only, was seen by the writer in 1900 on board a small local steamer which was wrecked a few days later. However, these figures have no other resemblance to those at present under discussion. The Bishop Museum is in possession of two stone fish gods with carvings of fish in relief. One, from the Deverill collection, represents a human head, with the face very well made and the neck shaped like a fish tail, the whole giving the suggestion of a round-bodied fish. At the back of the head a smaller fish two-thirds the length of the whole, has been carved in relief. The length of the idol is 8.5 inches. The second fish god is a thick stone roughly triangular in plan, with top and bottom flat and sides perpendicular. The top has been worked

⁴Te Pito te Henua, by Paymaster William J. Thompson, U. S. Nat. Mus. Report for 1889, p. 481, fig. 7.

⁵Ibid, fig. 8.

⁶Missionary Voyage of the Duff, London, 1799, p. 77.

⁷Typee, New York, 1876, pp. 74 and 257.

⁸Polynesian Researches, London, 1830, vol. ii, pp. 209 and 210.

down at the edges for about an inch, leaving the shape of a deep flat-bodied fish, nine inches long. The material in both these specimens is a very hard compact lava.

Returning to the first subject. It is evident that the work was done here from the fact that it is unfinished, apart from the improbability of such a heavy stone being transported in canoes. The stone is comparatively soft and would not weather well, though being buried in a comparatively dry soil, it might last indefinitely. From its incomplete state and the fact of its burial, it might be argued that it was being carved at the time of the abolition of the tabu in 1819, and that the sculptor hid it for preservation during the general destruction of idols which followed. This concealment of images by their devoted attendants has been the means of preserving many valuable specimens to the present day.

Seeking the significance of the figures—it is not yet understood if the various Hawaiian petroglyphs are to be considered in the light of a written language. The natives belonging to Moanalua now living had not seen the stone, and the best explanation the oldest inhabitant could give was that the figures represented the mythical giant lizard, "Moo", which was ever present in native superstitions. The same suggestion has been made by natives from other islands of this group, but only from appearances.

A first glance at the figures would suggest two human beings in the act of prayer, but the older natives consulted, do not associate this position with that taken by Hawaiians engaged in the old forms of prayers. They describe several postures—depending on the nature of the prayer—standing, on hands and knees, on elbows and knees with forehead resting on the hands, sitting with legs and hands folded, also sitting with legs to one side and hands on the ground. In all these positions, they say that the head should be hung. The observant Ellis⁹ when at Huahine, noted some of the positions taken by the southern Polynesians in prayer, and remarked: "The petitioner did not address the god standing or prostrate, but knelt on one knee, sat cross-legged, or in a crouching position, on a broad flat stone, leaning his back against an upright basaltic column, at the extremity of a smooth pavement, usually six or ten yards from the front of the idol." A little later

⁹Polynesian Researches, London, 1830, vol. ii, p. 209.

on,¹⁰ referring to his request of an old blind priest at Parea, Huahine, for a repetition of one of the ancient prayers: "After great persuasion, he consented, and assuming the crouching position, or sitting as it were on his heels, he commenced. . . ."

The writer is indebted to Dr. Brigham for the suggestion that the figures represent two people asleep, the position of the head following naturally the use of a hard pillow.

The idea that the figures represent deities appeals to the writer more than that of their being intended for mortals, following the claim of two old natives, who asserted that the figures must be gods since their faces looked upward. It is not to be expected that the Polynesian would expend the amount of arduous labor required to carve these figures so carefully, for any other than a sacred purpose, and the position of the arms and heads, indicating the act of eating or drinking, calls to mind the stories told of the offerings to the gods and spirits of deified ancestors, of food, but especially drink in the form of awa, which the gods were believed to have consumed. Were the stone found on the shore instead of a mile inland, it could be reasonably concluded that the figures were intended for Kuula, the fish god, and Hina his wife, whose names are generally linked together. These gods were worshipped at every fishing ground and in any convenient form, from a shapeless boulder to a well carved image.

Figure 3 shows a side and two end views of a stone lamp of basalt (No. 9338) purchased from the estate of the late W. E. H. Deverill, of Kauai. Unfortunately no history of the circumstances pertaining to its discovery have been preserved, but there are two recent abrasions on the outer surface, which might well indicate that the specimen was found when ploughing—a frequent means of discovery of many valuable stone implements in these islands. The upper edge of the lamp has been broken off to a depth varying from one-half to one inch, but the break is an old one as is shown by the soot clinging to the broken surface. The inner portion is heavily coated with soot. The Hawaiian lamps have been described already by Dr. Brigham,¹¹ but the cup in this lamp differs from that in other specimens in the Museum both in size and shape. The usual form has a roughly cylindrical hole, with bot-

¹⁰Ibid, p. 210.

¹¹Mem. B. P. B. Mus., vol. i, pp. 391-398.



FIG. 3. SCULPTURED STONE LAMP.

tom more or less flat, sometimes varied with another small pit in the middle. The cup in specimen No. 9338 is ovately conical, with a diameter of 2.8 to 3 inches at the edge and a depth of 3.5 inches. In this specimen, the greater outside diameter is 7.4, lesser 6.4 and height 6.6 inches. A raised figure of human form adorns each end, each 6.3 inches high. The noses are in evidence, while to represent the eyes and mouths, there are slight depressions. Small projections represent the ears. The legs are very short and are without feet. They were gradually worked down and disappear at the edge of the convex bottom of the lamp. The lower portion of the arms of fig. *c* are bent out a little to represent hands, and are seen more clearly in fig. *d*. In fig. *c* the breadth of shoulder is 3 inches, and the height in relief .8 inch, while in fig. *e* the measurements are 2.8 and .7 respectively.

The use of the human figure in native art as a means of ornamenting utensils occurred among the higher castes of Hawaiians, as is evidenced in some wooden bowls and dishes preserved in this and other museums. In regard to the intention of the carving being merely ornamental, a legend has been handed down with specimen No. 408 in this Museum to the effect that the figures supporting the dish represented Kahahana, the king of Oahu (conquered and slain by Kahekili of Maui) and his wife Kekuapoi-ula, who were shown in the carvings in the menial position of offering food and holding their mouths wide open as salt cellars.¹² It might reasonably be believed that the dish was the work of a Maui artist with the idea of degrading the memory of the vanquished Oahu king. The custom of honoring or dishonoring the memory of the deceased by the use of human teeth and bones inlaid in implements, has been referred to by Dr. Brigham.¹³ We might regard the figures ornamenting the stone lamp under discussion as representing persons in native history destined by the art of the sculptor to guard the lamp for all time, but whether as an honorable occupation or a menial task, we cannot decide.

This specimen of native stone work is probably unique, the only other lamp of like workmanship known, having been lost as before narrated.

¹²Mem. B. P. B. Mus., vol. ii, p. 162.

¹³Ibid, pp. 368, 369, pl. xxxi.

While the following may not be apropos of the subject of this paper, it is submitted with the hope that it may be of use in locating the debated site of the human bone fence or house known as "Kauialua". There is an old native of Moanalua, aged 88, who has lived at Kalihi, a neighboring valley, for the past twenty-five years. From the old man's descriptions and the writer's measurements it appeared that the stone described in the first part of this article was found immediately near the Kauialua. The coincidence the writer thought might be of value as a clue to the significance of the petroglyphs. As the old native was very feeble, the writer awaited an opportunity when he should feel strong enough to drive to Moanalua and point out the exact spot where the Kauialua stood. This proved to be 700 feet away from the place where the stone was found, which fact the writer considered was sufficient to remove any probability of connection between the two. The native's opinion could not be shaken, and suggestions of other sites had no influence with him. The surveyors in these islands have found the Hawaiians invaluable in pointing out old boundaries in the former complicated land system, and it is generally conceded that the native testimony on land matters is reliable. The old man's story will be told in its sequence.

Fornander¹⁴ gives the following in connection with the massacre of the Oahu people by Kahekili, king of Maui, after the conquest: "It is related that one of the Maui chiefs, named Kalaikoa, caused the bones of the slain to be scraped and cleaned, and that the quantity collected was so great that he built a house for himself, the walls of which were laid up entirely of the skeletons of the slain. The skulls of Elani, Konamanu, and Kalakioonui adorned the portals of this horrible house. The house was called 'Kauwalua', and was situated at Lapakea in Moanalua, as one passes by the old upper road to Ewa. The site is still pointed out, but the bones have received burial." Fornander's account does not agree with the story told by the Moanalua natives today, which is repeated as briefly as possible: "Kalaikoa was chief of the district, lived right by the old highway where it crossed the cliff, and occupied himself by waylaying the travelers and killing them for the purpose of getting their bones to build a fence around his house. He was secure from reprisals, as he had a strong body of

¹⁴A. Fornander, *Polynesian Race*, vol. ii, London, 1880, p. 226.

soldiers at his call. After killing his victims he extracted the long arm and leg bones and planted them upright in the ground to make a low palisade. Retribution overtook the bloodthirsty chief, for when he had the fence completed, except for the bones of one man, he died, and his bones were used to fill the gap."

Lapakea is in the valley, about 500 feet away from the cliff. Were all details known today, the two versions would probably be found to fit together, except in regard to the bone "house". The old man's story agrees with the last, except that he says that the bones of two men were needed to complete the fence when Kalai-koa died. He had seen the fence, and the following details were gleaned on the spot: The fence was composed of the leg and arm bones placed erect in the ground as close together as the fingers when relaxed. They were not tied. There was a single line of fence, making a square enclosure, one side of which was fifty feet (paced). In this enclosure was a large stone platform on which the grass house had stood, but there was no house standing when he first saw the place. Well outside the enclosure, 60 feet to the south, was a small house, built entirely of stone, into which the remaining portions of the murdered bodies were put. He had seen the bones there himself. The house was not an *imu* (underground stone-lined oven) but of proper house shape, large enough for the body of a man. The road passed between this and the fence.

This house the old man spoke of as a "heiau" dedicated to the war god Kaili. It had walls three feet high and four feet wide, with a pitched roof of stone and a door facing the bone fence. Outside the door was a stone pavement, where the priests gathered.

As pointed out, the Kaualua was in the land of the same name close to the boundary of Puu Kapu. The land of Kaualua is a small piece on the plateau about 600 feet wide between Puu Kapu and Puu o Ma'o. The boundaries of the various small sections were named for the writer's edification as they were passed. The site of the Kaualua is now occupied by a well built private road and was found at the place where the road passes over a subway used as a cattle drive.

The description given by Peter Corney¹⁵ in 1818 of a bone fence on Oahu, although not specifying the locality, is probably a

¹⁵Peter Corney, *Early Northern Pacific Voyages*. Edited by W. D. Alexander. Pp. 114 and 115. Honolulu (T. G. Thrum), 1896.

true account of the Kaulua, as there has been no mention of more than one such place in the islands. "In my tour with Mr. Manning (Manini), we visited the ruin of a large stone house, or fort, which had formerly belonged to a great chief; it had a double fence of human bones around it; these were the bones of his enemies killed in the war before the islands were visited by Europeans. The bones of this great chief are said to be still in the house; the natives are afraid to go near it, preferring to go a round of five or six miles to passing it." The road to Pearl Harbor, whither Captain Corney was bound, passed through the land of Kaulua at that time.

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