



Kaho'olawe Island Conveyance Commission
Consultant Report No. 17

Na Wahi Pana O Kaho'olawe

By:
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NA WAHI PANA O KAHO'OLAWE
"The Storied Places Of Kaho'olawe"

**A Study of
the Traditional Cultural Places
on the Island of
Kaho'olawe**

**Prepared for
the Kaho'olawe Island Conveyance Commission
by
Rowland B. Reeve**

"**wahi**: Place."

(Pukui & Elbert Hawaiian Dictionary
1971:348)

"**pana**: Celebrated, noted, or legendary place."

(Pukui & Elbert Hawaiian Dictionary
1971:313)

"About the places where the old gods walked, where the forefathers dwelt, lingered still their active influence for good or evil; wahi pana (storied places) they are called. Even today a mere child of the district will point them out."

(Martha Beckwith Hawaiian Mythology
1970:10)

"The native word, pana, has a meaning, not given in the dictionary, which will be most useful to you in visiting places of interest in these islands. It means a spot about which there is an old legend, story or tradition, a place of some special interest that ought to be visited. The proper and elegant form of question is "Aohe wahi pana a nei?" Is there no place with a story about here? Mrs. C.R. Bishop [Princess Bernice Pauahi Bishop] gave me the form some thirty years ago and it has been of great service to me in all my Hawaiian researches ever since."

(written by Joseph Emerson in a letter to
Martha Beckwith, December 10th, 1913:1)

Aohe wahi pana a nei?

(An Executive Summary)

A tiny island, smallest of the eight main islands in the Hawaiian chain, possessing neither permanent streams nor, for the last half century, a permanent population, Kaho'olawe seems an unlikely place to go seeking tradition. One would have thought that, with the passage of time, any legends associated with Kaho'olawe, if there ever were any, would have been forgotten, and that any trace of the native Hawaiian history of the island would have vanished.

Yet, like each of the other islands settled by the people of ancient Hawaii, Kaho'olawe has a history. Through the years of abandonment and neglect she has retained many of her stories and her storied places. These *wahi pana* can be found in every part of the island, from the slopes of the volcanic peak which first formed her to the sheer cliffs which defend her eastern and southern flanks; from the white sand beaches of her western end to the crescent coves which line her northern coast.

Some of the stories linked to these places tell of the gods and legendary figures who visited or made their home on Kaho'olawe. Others speak of more human affairs; of places where the islands inhabitants lived and worshipped, of good planting areas or fishing holes. The life of Kaho'olawe, and of her people, is reflected in these stories.

Each of these storied places, these *wahi pana*, is important to our understanding of what Kaho'olawe is in a Hawaiian sense. They can help us both to unlock the secrets of the island's past and to preserve, and pass on, her history. If the traditions surrounding these places are allowed to be forgotten, as so many already have, then we have lost not just an entertaining collection of stories, but a treasure of inestimable value. For without these stories,

without an understanding of the essence of these places, the life goes out of the land.

The following report does not claim to touch on all of the *wahi pana* of the 'aina of Kaho'olawe. Judging from the numerous traditions which have come to light in the brief tenure of this study, it is evident that many more stories still lie waiting to be discovered, both within the pages of books and in the minds of living Hawaiians. This report is simply an attempt to bring together as many as possible of the legends, traditions, facts and beliefs concerning Kaho'olawe's various physical places. In some cases these traditions concern a specific ancient site such as a fishing shrine or a burial area. In others they relate to a completely natural feature such as a hill or a sea cave. The land was full of stories, and together these traditions comprised the collective memory of her people.

When this study was first conceived, it was generally believed that little traditional information existed concerning Kaho'olawe. In comparison with the other Hawaiian islands, on which human habitation has continued uninterrupted since the time of their first settlement, this is true. Yet, considering all that Kaho'olawe has endured over the years, from the loss of her native population to the degradation of her natural environment, it is surprising just how much has survived. The story of Kaho'olawe has lain for centuries imbedded in ancient chants and legends, lost in libraries and archives, and buried within the earth. Only in the last few decades has the island begun to reclaim her history. This study is a small attempt to assist in that reclamation.

The traditions compiled in this report tell us a great deal about the way in which the people of Kaho'olawe looked upon their island home. We know, for instance, that the island was associated with a number of ancient Hawaiian gods. Foremost among these was Kanaloa, one of the four a major deities in the Hawaiian pantheon, who is considered by many

to have been the god of the sea. One of the ancient names of Kaho'olawe, the name by which it is known in the chants which tell of the birth of these islands, is Kanaloa. The island is believed to bear this name in honor of the god, or of his namesake, a legendary voyager who arrived in Hawaii from southern Polynesia, making landfall at Lae o Kealaikahiki, the westernmost tip of Kaho'olawe.

The island is also strongly linked to the shark god Kamohoali'i, brother of the fire goddess Pele. Legends speak of one of the homes of Kamohoali'i as being on Kaho'olawe. We also have evidence that a major shrine dedicated a shark god (possibly Kamohoali'i) once existed on the island, and that it "received sacrifices of some sort or other from every native that passed the island." The wooden image of this shark deity survived on Kaho'olawe as late as 1827.

Most of Kaho'olawe's early inhabitants were fishermen, and it is not surprising that the island is entwined in the legend of the fishing god Ku'ula. 'Ai'ai, the son of Ku'ula, is said to have come to Kaho'olawe and built a shrine to his father on the headlands overlooking the bay of Hakioawa on the island's northeast coast. The remains of a stone structure matching the legendary description of 'Ai'ai's shrine can still be seen today atop the bay's southern headland.

Kupua, demigods, such as the brothers Kalaepuni and Kalaikini, also appear in the traditional accounts of Kaho'olawe. Kalaepuni, whose feats of strength are said to have won him the mantle of *ali'i nui* of the island of Hawai'i, met a treacherous death at the bay of Kanapou on the eastern coast of Kaho'olawe. His brother, Kalaikini, is linked to the island in a more indirect fashion. Kalaikini was renowned for traveling throughout the islands stopping up *puhi*, blowholes. Though no mention can be found in the traditional literature of Kalaikini ever having visited Kaho'olawe, an old map of the island, drawn sometime around 1889, gives evidence of his presence. Written in beneath the

place name Kohe o Hala, which this map locates on the coast north of Kanapou bay, is the notation "Puhi Kalaikini tried to stop", while to the south of Kanapou, at Lae o Halona, is inscribed "Puhi stopped by Kalaikini". These two inscriptions suggest that there may once have existed a legend, now lost to us, telling of Kalaikini's journey to Kaho'olawe and of his successful and unsuccessful attempts to stop up the blowholes of that island.

Men, as well as gods, play a major role in the legendary history of Kaho'olawe. In ancient times the island appears to have served as an important navigation landmark for voyagers traveling to and from the islands of southern Polynesia. Among these legendary voyagers was Laamaikahiki, Sacredness from Kahiki, who is said to have introduced *hula* to Hawai'i and brought the first idols to these shores. At least one legend relates how Laamaikahiki lived for a time on the western coast of Kaho'olawe before returning forever to his home in distant Kahiki.

No less important, however, are the stories the island has to tell of those whose names are not enshrined in chants and legends; the stories of the *kama'aina*, the children of the land, who drew their life from the soil and the sea. Kaho'olawe's now tortured landscape was once home to a thriving native Hawaiian community. Stone house foundations and temple platforms, still visible today, give mute testimony to a time when the island was crowded with life. A time when the children of Papa and Wakea (the legendary progenitors of the Hawaiian race) knew the secret of survival in this land of little rain.

The physical remains of Kaho'olawe's former inhabitants can be found in almost every part of the island. Fishing settlements crowd her coastal valleys, while on her upland slopes the remnants of camps and field shelters give evidence of the island's agricultural wealth. The presence of manufacturing sites, such Pu'u Moiwī, the second largest stone adze quarry in the Hawaiian islands, reveal that

Kaho'olawe possessed resources of far greater value than her small size and desolate appearance might suggest.

Although Kaho'olawe boasts no massive religious structures such as those built by the *ali'i nui* of the larger islands in the chain, the shrines and temples which were constructed here can tell us a great deal about the religious life of the island's early inhabitants. One in particular, a terraced fishing shrine in the bay of Kamohio, provides an eerie glimpse back through time. Abandoned at some point after the coming of Europeans, this site was "rediscovered" in 1913 by J.F.G. Stokes, an anthropologist at Oahu's Bernice Pauahi Bishop Museum. Resting in the shadow of an overhanging cliff, the shrine had, in the years since its abandonment, been largely sheltered from the elements. Stokes found its stone faced terraces still carpeted in *pili* grass and fern. Offerings carefully wrapped in *ki* leaves lay amid the dust and rubble which had fallen from cliff face above. On one platform Stokes discovered a carved wooden image still sheathed in *kapa* cloth. On another lay a flexed human skeleton wrapped in sheets of *kapa* and bundled in a woven mat.

The entire shrine lay very much as had been left when its last worshippers departed the bay. The site's sheltered position in the lee of the cliff had combined with Kaho'olawe's dry climate to protect its fragile contents. This astonishing preservation, so unusual in Hawaiian sites, gave Stokes a unique opportunity to examine first hand the array of objects, both plant and animal, which the early Hawaiians offered up to their gods. The hand written field notes of Stokes' subsequent excavation of this shrine have been transcribed for the first time and included as an appendix to this report.

In the years since Stokes excavated the shrine at Kamohio, the U.S. Navy's bombardment of the island has weakened the structure of the overhanging cliff, causing a rock slide which has, to a large extent, buried what remains

of the shrine. A shelter cave, immediately adjacent to the shrine, from which Stokes recovered numerous carved bone fishhooks, was recently ransacked by looters searching for artifacts.

The case of the Kamohio shrine highlights the need, not only to preserve the stories surrounding these varied *wahi pana*, but to protect the sites themselves. Kaho'olawe's storied places remain under threat from natural forces such as erosion and storm damage, as well as from the possibility of human mismanagement.

Whomever takes on the future stewardship of this island should continue the process of identifying and gathering information about Kaho'olawe's traditional places. But more than that, they should initiate an active and ongoing program to help preserve these *wahi pana* so that they can be known, and visited, by the generations to come.

Preface

The chapters which comprise this report have been arranged according to the relative geography of Kaho'olawe, beginning at Aikupau on the northeast coast and moving clockwise around the island. Each chapter deals with a specific place or group of related places. Whenever possible, the chapters have been organized along the lines of the island's traditional land divisions, with various *wahi pana* being grouped together according to the *'ili* (the traditional land section) within which they lie. In some cases, however, the character of the traditions surrounding a certain place require that it be considered separately from the other *wahi pana* within its *'ili*.

Every effort has been made to trace the information presented in this report back to its primary source; whether it be a chant, a letter or a legend. In most cases the author has chosen to quote directly from these original sources rather than attempt to paraphrase them. This, it is felt, insures the reader access to the full range of information contained within the original document. It also allows the voices of the past to speak for themselves.

When a document has proven too lengthy to be quoted in full, either in the text or in the accompanying end notes, it has been attached as an appendix to the report. These appendices also contain additional information which was unearthed during the course of research, but which is not directly applicable to the subject of the study (Appendix E, for example, provides a list of the names of those individuals known to have lived on Kaho'olawe or been in some way associated with the island throughout its history).

As much as possible, the texts of these documents have been quoted as they originally appeared. Errors in spelling and punctuation have not been corrected. When, however, a sentence within a document proves confusing, or when an explanation is required, a note has been added in brackets.

The vast majority of the archaeological sites mentioned in this report were located and described during the 1976-80 island-wide archaeological survey of Kaho'olawe. At that time each associated cluster of ancient structures was assigned a distinct site number, and each individual structure was given its own feature number. Whenever one of these ancient structures is referred to in the text, its site and feature number are provided in an end note. Those wishing a more detailed description of these sites can consult the "National Register of Historic Places Inventory -- Nomination Form" which was completed for each site at the time of the survey. Copies of these forms (four file drawers full) can be found at the Hawaii State Historic Preservation Office.

It is hoped that the findings presented in this report will stir further interest in Kaho'olawe and help to bring forth additional information concerning the culture and history of the island. These pages are but a single step on the long journey of rediscovery.

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Chapter I

AIKUPAU

"...they held old-time devotions at an altar called Aikupau"
(Thomas Thrum Kahoolawe An Early
Place of Banishment 1902:122)

Mele and *mo'olelo*, the chants and legends which are the traditional sources of Hawaiian history, have preserved for us the names and stories of some of Kaho'olawe's more well known *wahi pana*. There are, however, other places, not so well known, whose names and traditions were remembered and treasured only by the people who dwelt near to them. With the death and dispersal of Kaho'olawe's native population, the names of these places and the stories which surrounded them have, for the most part, been lost to us. In a few rare instances, however, a casual reference in a historic account or a note on an old map has enabled us to relocate one of these forgotten places, to trace back the traditions which once surrounded it and to rediscover something of the role it played in the life of the island. One of these forgotten places is the *wahi pana* of Aikupau.

The earliest mention we have of a place on Kaho'olawe known as Aikupau is in an article entitled "Kahoolawe; An Early Place of Banishment", written for the Hawaiian Almanac and Annual of 1903.¹ Thomas Thrums, editor of the Annual, had gathered together within this article various information and anecdotes concerning the old penal colony which formerly existed on Kaho'olawe. One of these anecdotes, recalled to him by "a venerable native writer of this city, formerly of Honouaula [probably Honua'ula], Maui", referred to an escape attempt undertaken by some of the convicts in the early months of 1841.²

A penal settlement had first been established on Kaho'olawe in the 1820s, and by the early 1840s the island was home to over 15 male convicts³ exiled there for crimes ranging from infidelity to manslaughter.⁴ Food appears to

have been in short supply on Kaho'olawe at that time. The government apparently failed to provide its prisoners with adequate supplies of poi⁵ and sweet potato.⁶ As a result, the exiles were reduced to eating *kupala*, a wild form of sweet potato which, when consumed with any regularity, causes dysentery.⁷ In their extremity, a group of the prisoners devised a plan to swim to Maui and bring back food for the others. In the words of Thrum's informant;

Fifteen of the number, good swimmers, were chosen for the venturesome trip, and their return was to be looked for with a food supply in six days, or be considered drowned, or captured.

These deliverers prepared for their errand in the month of February, 1841. Before starting they procured a wiliwili log to which they fastened a rope and with a stone anchored it out at a depth of fifteen fathoms where the tide ran swiftly, as a buoy, that on its indication of the tide running towards Maui would be the time to start. Meanwhile they held old-time devotions at an altar called Aikupau, then set out to swim across.⁸

The escape attempt proved successful, and the escapees not only returned to Kaho'olawe in several canoes filled with sweet potatoes stolen from garden patches on Maui, but, according to Thrum's narrative, they subsequently paddled across to Lae o Ka'ena on the neighboring island of Lana'i, the site of the women's penal settlement, "and brought all the women to Kahoolawe to share their solitude."⁹

The account of this little remembered incident is interesting, not only for the light it sheds on life during the penal colony period, but also because it provides us with a glimpse further back into the past. The reminiscences of Thrum's informant give us a clue as to the name of one of the many native Hawaiian religious site which once existed on the island of Kaho'olawe. Although it is possible that the convicts themselves set up and dedicated a shrine prior to their escape attempt, it seems more likely that they conducted their worship at a site which was already in existence at the time of their confinement.

Where then was this "altar called Aikupau"? Thrum makes not mention of its location, but the fact that the would-be escapees worshipped there prior to swimming across to Pu'u Olai on Maui, suggests that this shrine lay somewhere on Kaho'olawe's northeast coast. The search for Aikupau may have ended there, and the whole thing might easily have been written off as a tantalizing but obscure historic footnote, had not the cartographers of the Hawaii Territorial Division of Forestry set out, in 1917, to create a map of Kaho'olawe.

Seven years before, in 1910, Kaho'olawe had been declared a forest reserve. Now, however, with growing pressure to lease the island for cattle ranching, C.S. Judd, Superintendent of Forestry, felt there was a need to produce an up to date map of the island. The only accurate topographic map of Kaho'olawe had been drawn back in 1904-5 by a visiting survey vessel, and copies of the map were in short supply.¹⁰ Judd, therefore, instructed his staff to make a tracing of the earlier map.

In order to obtain the correct names for the island's various physical features, Judd sent a copy of the newly printed map to J. Kauwekane of Kanahena, Makena, Maui, asking him to, "kindly place on it in pencil at the proper point the name of any or all of the points, bays, hills and valleys that you know".¹¹ Kauwekane's father had been a *kama'aïna*¹² of Kaho'olawe and he himself was known to be "very well acquainted with that island".¹³ The map which Kauwekane sent back to Judd contained numerous place names, many of which had never before been recorded from the island.¹⁴ Among these, written in next to a stretch of shoreline on the island's northeast coast, about midway between Lae o Kuikui and Hakioawa, was the name "Aikupou".

Looking at its placement on the map, almost directly across the Alalakeiki channel from Pu'u Olai, one cannot help but feel that Kauwekane's "Aukupou" could very well be the "Aikupau" first mentioned fifteen years before by Thomas Thrum. Whether Thrum's or Kauwekane's spelling is the more

correct is impossible to say.¹⁵ Either way, it seems likely that the "altar" at which the Kaho'olawe convicts worshipped before swimming for Maui was situated somewhere along this stretch of coast.¹⁶

An examination of modern aerial photographs reveals that a small sand beach lies near the spot which Kauwekane marked on his map as Aikupou. The island-wide archaeological survey of Kaho'olawe, conducted between 1976 and 1980¹⁷, located a cluster of early Hawaiian house sites and other ancient remains just back of this beach.¹⁸ Their presence here suggests that Aikupau(ou) was the site of a small Hawaiian settlement.

In amongst the house platforms and midden scatters at Aikupau(ou) were found the remains of three structures which the archaeologists who conducted the survey believed may possibly have served as shrines.¹⁹ The first of these structures consisted of a stone-faced platform whose interior had been filled in with chunks of coral. The other two structures were a similar stone-faced terrace with four pieces of branch coral forming part of its wall construction, and a surface scatter of coral chunks. The element common to all these structures was the presence of unworked coral, which the archaeologists working on the project considered to be "a symbol of sanctity."²⁰

Throughout the Hawaiian islands fragments of branch coral as well as chunks of water-worn coral have been found within and atop the walls of ancient structures believed to have been fishing shrines or *ko'a*.²¹ The Hawaiian word *ko'a*, in addition to meaning a fishing shrine, can also be used to refer to an offshore fishing ground; a place where certain types of fish were known to congregate. The fishermen of ancient Hawai'i were intimately familiar with the waters which encircled their islands and knew the location of hundreds of such *ko'a*. Some *ko'a* were known to all, while others were secret and their locations jealously guarded.²² In order to fix the exact position of a newly discovered

ko'a, so that it might be revisited later, Hawaiian fisherman would lining up prominent topographical features (such as hills or headlands) which were visible from the fishing ground. Often, two or more onshore *ko'a* were used as triangulation points.

A third meaning of *ko'a* is coral or a coral head.²³ It has been suggested that *ko'a* (coral heads) dredged up from offshore *ko'a* (fishing grounds) were placed within or atop *ko'a* (fishing shrines) as offerings. Large pieces of branch coral are seldom found within traditional Hawaiian habitation structures, and it is for this reason that the archaeologists conducting the Kaho'olawe survey identified the three structures at Aikupau(ou) as possible shrines. Further north along the coast, closer to Lae o Kuikui, lies another scatter of archaeological remains, among which are two more possible shrines.²⁴ Which, if any, of these five structures may have been the "altar called Aikupau" is impossible to say. Our present archaeological knowledge of the area can tell us only that there once existed a Hawaiian settlement along the stretch of coast which Kauwekane noted on his map as Aikupou, and that among the features lying within that settlement are a number of possible shrines.

If the would-be escapees did in fact worship at a shrine in this area, as Thrum's account and Kauwekane's map suggest, then we might expect the small settlement at Aikupau(ou) to have been occupied at the time of the escape attempt, or at least to have been only recently abandoned. How else, one wonders, would the location of the shrine have been known to the convicts?

As part of their initial survey, the archaeologists who rediscovered the settlement at Aikupau(ou) set out to date its occupation. In order to do so they collected off the surface of the sites a number of flakes of volcanic glass. This naturally occurring glass-like stone, similar in many ways to obsidian, forms when molten lava cools very rapidly. It usually occurs in the form of small nodules within the

ashy matrix of cinder cones, or in thin bands sandwiched between layers of lava. It is in this latter form that it occurs naturally on Kaho'olawe. A number of the island's sources of volcanic glass appear to have been known to, and exploited by, her early inhabitants.²⁵

Volcanic glass strongly resembles obsidian in that, when shattered, it produces a cutting edge as sharp as broken glass. Thumb nail sizes flakes of volcanic glass appear to have been used by the early Hawaiians as general, all purpose cutting tools, something like a prehistoric pocket knife. Evidence suggests that these flakes may have been employed in a variety of tasks, from cutting fish line to stripping the bark of the *wauke* plant, which was used in the manufacture of *kapa* (bark cloth).²⁶ Flakes of volcanic glass are often found scattered in and around ancient Hawaiian sites. Some archaeologists have suggested that these flakes can be used, not only to indicate the type of activities going on at the site, but also to provide an approximate date for the site's occupation.

When a piece of volcanic glass is broken, as when a flake is removed from a core to be used as a cutting tool, the freshly broken surface begins to absorb moisture from the air. In scientific terminology, it begins to hydrate. This absorbed moisture chemically alters the composition of the glass, forming a rind, which gradually increases in thickness over time. By thin sectioning such a flake, and measuring the thickness of the rind, it is possible, in theory, to determine the approximate age of the flake.

Using this "hydration-rind" dating technique on a piece of volcanic glass which had been flaked for use as a cutting tools, one could, theoretically at least, determine when that tool was made and, by inference, when the site at which it was found was occupied. The only difficulty with this dating technique is that the scientists employing it have yet to agree on the rate at which a hydration-rind forms. Is the rate of hydration constant, or does it vary depending upon

the the chemical composition of the glass and the conditions to which the flake has been exposed (direct sunlight, etc.)? Needless to say, different formulas for the rate of hydration can produce very different ages for the same flake. That is the problem we are faced with at Aikupau(ou), and on Kaho'olawe as a whole, for the vast majority of dates obtained from archaeological sites on the island have been taken from volcanic glass.

During the 1976-80 archaeological survey of the island, a piece of volcanic glass was collected off the surface near a possible shrine at Aikupau(ou).²⁷ The laboratory to which this sample was sent²⁸ estimated that it had been flaked some time around A.D. 1573±36. This seemed to fit well with volcanic glass dates recovered from other structures within the site cluster. Because all of these flakes had been collected off the surface, the dates they produced, which ranged from A.D. 1434±36 to 1585±42, were assumed to represent the final period during which the site was occupied. If these dates are indeed correct, then the settlement at Aikupau(ou) was most probably abandoned some time in the late 16th or early 17th centuries, over two hundred years before the penal settlement convicts embarked on their swim across the Alalakeiki channel.

Between 1982 and 1983 further archaeological work was undertaken within the settlement of Aikupau(ou).²⁹ A second team of archaeologists excavated a set of eight test trenches within a cluster of features just back from the beach. The presence within these trenches of fishing gear, such as bone fishhooks, bone toggles and an octopus lure, as well as the abundance of marine shells, fish bones and the bones of sea birds recovered during the excavations, suggest that this ancient community drew much of its subsistence from the sea. But the sea was not their only source of food. The discovery of bones belonging to domestic dogs and pigs provide evidence of animal husbandry. Although we possess no direct evidence for agriculture at the site, it seems likely that sweet

potato and other dryland crops may have been grown along the now dry streambed backing the beach.

The number and size of the house foundations discovered at Aikupau(ou), as well as the abundance of food remains unearthed within these test trenches indicate that this area was more than just the site of a temporary fishing camp. During at least the later years of its occupation, this stretch of coastline appears to have supported a permanent resident community.

Among the artifacts recovered during the 1982-3 excavations were numerous flakes of volcanic glass. Some of these flakes were sent off for dating, but this time to a different laboratory which employed a different formula for determining the hydration rate.³⁰ The dates which came back ranged from A.D. 1707±18 to 1877±8, significantly later than the first set of volcanic glass dates submitted by the 1976-80 survey team, and well within the range of the penal colony period.³¹ To further support their findings, the archaeologists working in 1982-3 had three of the volcanic glass flakes dated by the original survey remeasured and recalibrated. Their results, using the new rate, were as follows.³²

<u>1976-80 dates</u>	<u>1982-83 dates</u>
1585±42	1842
1540±30	1831
1549±39	1838

The discrepancy between these two sets of dates leaves us very much in the dark as to the true age of the Aikupau(ou) settlement. On the surface, one would be inclined to accept the second set of dates, since they were determined using the most recent and "improved" hydration rate. This new rate, however, like its predecessor, has been called into question, and there remains at present a great deal of controversy among archaeologists as to which rate, if any, is the more accurate. Until such time as this question is resolved, or a new rate decided upon, we must turn

elsewhere for evidence which might help to date the sites at Aikupau(ou).

During the 1982-3 excavations a number of firehearths were uncovered, some of which yielded charcoal suitable for radiocarbon dating. One might assume that this dating method, used world-wide and generally regarded as being fairly accurate, might provide us with the true age of the Aikupau(ou) settlement. Indeed, we do possess two very early dates which suggest that the area was occupied, at least intermittently, somewhere between the 14th and 17th centuries.³³ The majority of the dates recovered from these trenches, however, fall within a period, from about the end of the 17th century to the present, when radiocarbon dating is at its least accurate.

Changes in the world's atmosphere resulting from the use of fossil fuels in the years following the industrial revolution, have caused major fluctuations in the levels of carbon 14 and carbon 12, the two elements used in carbon dating. What was formerly a nice curve on which one could easily plot the date of a sample, became, with the introduction into the atmosphere of fossil carbons, a undulating wave, giving a wide range of possible dates for a single sample. That is why one finds charcoal samples collected during the 1982-3 excavations which range in possible age from 1670 to 1950+ and from 1840 to 1950+.³⁴ Though these dates apparently fall within the later period of Hawaiian prehistory, we cannot determine their exact age. Neither radiocarbon dating nor hydration-rind dating techniques have provided us with a clear picture of when the ancient sites at Aikupau(ou) were occupied and when they were abandoned.

One final piece of evidence, unearthed during the 1982-3 excavations, may help to at least partially resolve this dating dilemma. In two of their test trenches the archaeologists working on the site came upon flakes of what their report refers to as "quartz".³⁵ They make no direct

mention of these flakes in the text of their report, but include them within the list of the artifacts encountered during excavation.³⁶

The only other site at which flakes of "quartz" were among the artifacts listed as having been found was at the bay of Honokoa on the opposite side of the island. In describing these "quartz" flakes from the Honokoa site, the text refers to them as "two cream colored chert flakes".³⁷ Chert is not quartz, but a similar, semi-glassy stone which was used throughout the old and new worlds as a raw material for making tools.

From the brief description given them in the 1982-83 report, we cannot be sure whether the flakes excavated from the site at Aikupau(ou) are truly quartz or, as appears more likely, chert. Both quartz and chert, being metamorphic rocks, do not occur naturally in these volcanic islands.³⁸ Pieces of chert have occasionally been found within Hawaiian sites, but these sites date to the early historic period when chert were brought to the islands as ships ballast or as gun flints. Occasionally, these pieces of introduced stone show signs of having been flaked and used much like volcanic glass. If the "quartz" artifacts unearthed at Aikupau(ou) are indeed pieces of some foreign stone which have been intentionally flaked for use as tools, then we have found one of those relatively rare examples of an introduced material being used to create a traditional tool.³⁹

Assuming that the archaeologists' identification is correct, and that these flakes are pieces of introduced stone, which would have had to have been brought onto the site during the post-contact period, then it seems probable that the settlement at Aikupau(ou) continued to be occupied into the early years of the 19th century. If so, then there may have been *kama'aina*⁴⁰ of Kaho'olawe living near, and possibly worshipping at, the shrine of Aikupau during or just prior to the time when the penal settlement convicts undertook their marathon swim to Maui.

The shrine of Aikupau was probably never a very important religious site. The settlement, of which it appears to have formed a part, was a small one, probably consisted of no more than a single *ohana*, or extended family. Yet, on an island where so much tradition has been lost, we are fortunate to be able to knit together and preserved even this small shred of the past.

The search for "an altar called Aikupau", as it has been traced through these pages, illustrates not only the varied and oftentimes unusual sources and techniques used in reconstructing the cultural history of Kaho'olawe, but it also reveals the immense difficulties facing those attempting to shed light on the island's traditional places.

Notes

1.) Thrum 1902:117-122.

2.) Thrum states that; "Enquiring among Hawaiians upon this subject we have an account from a venerable native writer of this city, formerly of Honouaula, Maui, who testifies of his own knowledge not only of the existence of the penal settlement of Kahoolaws [sic] about the year 1840, but one also at Lae-o-kaena, Lanai; the former island being designated for the men, and the women being banished to the latter place. He states he knew whereof he spoke, for his own mother was among the parties sent there." Thrum gives no indication as to who this "venerable native writer" may have been. He goes on, however, to state that; "The narrator claims to have been born in 1832 at a place on Maui that had much to do with Kahoolawe, being right opposite it, and these things were freely talked of among the people. There was much sadness and wailing at the arrests made under the new law on the parties being locked up at Lahaina for subsequent trial, before the governor, and sentenced to one island or the other." (Thrum 1902:120-121). "Honouaula", the narrator's birthplace, is most probably Honua'ula, a district of east Maui which lies directly across the Alalakeiki channel from Kaho'olawe.

3.) The first prisoners exiled to Kaho'olawe were a Hawaiian man convicted of theft, and a woman accused of prostitution, both of whom were sent to the island on the 13th of June, 1826. (this information is contained in a letter dated June 11th 1826 written by Rev. William Richards of the Lahaina Station, a typescript copy of which can be found in Missionary Letters:II:740-742a; Letter #135) By the 1840s, however, the convicts confined to Kaho'olawe appear to have been all males.

No official government records have yet been discovered which give the number of convicts sent to Kaho'olawe. In his account of the penal colony, Thrum states that "[along] with some residents they [the convicts] numbered 80 or more." (Thrum 1902:121). The only other estimate we have of the penal colony's population dates from a month after the escape attempt. In March of 1841, a group of sailors from the of the United States Exploring Expedition were wrecked on the coast of Kaho'olawe, and in their wanderings over the island stumbled upon the convict settlement. In writing of the incident, Captain Charles Wilkes mentioned that; "All the inhabitants [of the island] are convicts, and receive their food from Maui: their number at present is about fifteen." (Wilkes 1845:IV:245) It is tempting to suggest that the drop in the convict population, from the "80 or more" described by Thrum to the "about fifteen" mentioned by Wilkes, was a direct result of the escape attempt. It must be remembered, however, that Thrum's estimate included the

island's non-convict population, which, in the late 1850s following the abandonment of the penal colony, is known to have fluctuated between 15 and 50. (see Appendix D)

4.) The Hawaiian historian Samuel Kamakau speaks of Kaho'olawe and neighboring Lana'i as being; "penal settlements for law breakers to punish them for such crimes as rebellion, theft, divorce, breaking marriage vows, murder and prostitution." (Kamakau 1961:356). Thrum, however, states that; "The crime of murder was punishable by death; theft and adultery by exile, the men being sent to Kaho'olawe and the women to Lanai." (Thrum 1902:121). At present, we only possess documentary evidence of prisoners being sentenced to the island for crimes of manslaughter (Bingham 1981:443), theft and adultery (letter from Rev. Lorrin Andrews to Levi Chamberlain, original on file in the Hawaii Mission Children's Society Library, Missionary Letters Collection, Lorrin Andrews 1828-1831, letter of 15th December, 1828:1), prostitution (William Richards Missionary Letters 1816-1900:II:740-742a; Letter #135, June 11th, 1826) and forgery (Gerrit P. Judd's letter of January 25th, 1840, a copy of this letter is held in the Judd letter file for 1837-1847 at the Hawaii Mission Children's Society library).

5.) An edible paste formed of mashed taro root thinned with water.

6.) "the government furnished them with food, but they suffered with hunger and some died of starvation and some few in the sea." (Kamakau 1961:356).

7.) Also known as 'uala-koali (Ipomea spp.) (Pukui & Elbert 1971:334), *kupala* was normally fed to pigs, but was eaten by the early Hawaiians in times of famine. *Kupala* appears to have been quite plentiful on Kaho'olawe up until the later half of this century. (Handy & Handy 1972:127) In the definition of *kupala* found in their Hawaiian Dictionary, Pukui and Elbert quote the saying; "Kaho'olawe 'ai kupala, Kaho'olawe, eater of *kupala*. [*Kupala* was eaten here for lack of other food]". (Pukui & Elbert 1971:170) Since fields of yam, sweet potato and other dryland crops appear to have been cultivated in the uplands of Kaho'olawe during the prehistoric period (see Chapter III), it seems likely that this epithet may date from some time during the historic period.

8.) Thrum 1902:121.

9.) Thrum 1902:122. Thrum's full account of the incident reads as follows. "And as they swam vigorously it was not long before they reached Molokini, the cluster of rocks in mid-channel, where they rested awhile. Toward nightfall they resumed their swimming till they landed at Puuolai, near

Makena, not so much tired as they were hungry. They therefore quickly sought out a grove of cocoa-nut trees from which they obtained a food supply. Six of their number were familiar with the locality and guided the party inland to a cave where they remained till morning, when they set out for the potato patches and gathered a quantity in bundles, making three trips nightly for three nights. They then appropriated several canoes for their needs and loading them they returned to Kahoolawe according to the time agreed upon.

Subsequently they returned for further supplies and committed like depredations. From Kalepolepo and Maalaea they stole five canoes then proceeded along the shore to Ukumehame and Olowalu, where they took others. They pulled all the taro of these two places, and also of Waikapu, which they loaded into the canoes and set out for Kahoolawe. With these canoes they afterwards went over to Lae-o-kaena, Lanai, and brought all the women to Kahoolawe to share their solitude. By these acts of the convicts a fear of them prevailed so that they were not molested by the government, but they lived peaceably together until 1843, during Lord George's rule when, it is said, he put an end to the ridiculous law and sent the exiles to their respective localities to work upon the roads."(Thrum 1902:121-122).

The veracity of Thrum's account is supported by Samuel Kamakau who gives a similar, though much abbreviated version of the incident. "Kahoolawe was the prison for the men and there was no protection for them; the government furnished them with food, but they suffered with hunger and some died of starvation and some few in the sea. Death by starvation was so much more common than by sea that some of the prisoners swam at night from Kahoolawe to Honua'ula, stole a canoe from the people there, paddled to Ukumehame and 'Olowalu, stole food at night and went back again to Kahoolawe. Those who were being punished for adultery filled the canoe with food and paddled for Lanai, where, rounding the cliff of Kaholo and Kaumalopau, they landed at Ka'ena where was the large tract of land called Ka'a where the women were imprisoned who were being punished for adultery, and some of the men took their women and ran away with them to the mountains of Maui."(Kamakau 1961:356-357).

Further confirmation is provided in a letter written in 1847 by Keoni Ana, then Minister of the Interior for the kingdom [?], to Justice William L. Lee suggesting that the thief George Morgan be banished "to the land of Kahoolawe the Island near Maui. At this place, banishment continues. The men who had been exiled there in earlier times, they swam to Maui, they were not truly confined there, but, this cannot be accomplished by a foreigner."(Letter in the Hawaii State Archives, Interior Department Land File:12/15/1847)

Julius Rodman's account of the incident, included in his 1939 book Unending Melody: Being Fragments From the Pen of an Amateur Beachcomber, appears to have been taken almost

verbatim from Thrum's 1902 article, and provides no new information. (Rodman 1939:39-40)

10.) A copy of this map, drafted by a survey crew from the U.S.S. Patterson, is on file at the Hawaii State Survey Office (Reg. No.2726, Vault, Case 10-50) as well as at the Archives of the Bishop Museum (G4382-K3-1904-C5).

11.) The original of this letter, along with Kauwekane's brief reply, is on file in the Hawaii State Archives (Board of Agriculture and Forestry, Division of Forestry, Box 34, Charles S. Judd, Kahoolawe, 1913-1920).

12.) A *kama'aina*; literally "a child of the land", someone who is native to a place. (Handy & Handy 1972:42) Pukui & Elbert define *kama'aina* as "Native-born, one born in a place". (Pukui & Elbert 1971:115)

13.) This quote is also taken from Judd's letter to Kauwekane.

14.) The map which Kauwekane sent back to Judd, with his penciled in place names, is presently on file in the Hawaii State Archives (Map, G4382.K3,1917,H38,.F6).

15.) As was common at the time he was writing, Thrum prints the place name Aikupau without any diacritical marks, giving us no indication of how the word was pronounced, and therefore how it was translated. One possible way of breaking the word apart for translation is to write it as 'Ai-kupau: 'ai meaning "vegetable food" ("often 'ai refers specifically poi") (Pukui & Elbert 1971:8), and kupau being translated as "entirely finished". (Pukui & Elbert 1971:170) Thus the place name "food entirely finished" would fit in well (possibly too well) with the events of Thrum's narrative, suggesting that the name may date from the penal colony period. Other possible translations of Aikupau and Aikupou are less revealing. Lahilahi Webb, who provided translations for Gilbert McAllister's book Archaeology of Kaho'olawe, gave the meaning of "Aikupo" (McAllister's version of Aikupou) as "To-eat-while-going." (McAllister 1933:57) In one of her many notes on Kaho'olawe place names, held in the Archives of the Bishop Museum, Inez Ashdown translates "Aikupou" as "Meal eaten at night". (From an undated letter to "Angus", with the preface "Translations, as we used them:")

16.) In the same letter to "Angus", Inez Ashdown says of Aikupou that; "It's between Lae o ka ule (sometimes called Pohaku ule because it's a rock off shore, standing in the sea) and Kohe o Hala." Ashdown gives no explanation for placing Aikupou so much further south than is shown on Kauwekane's map.

17.) Between January 1976 and April 1980 an archaeological survey was conducted of the entire island of Kaho'olawe. Sponsored by the United States Navy, this survey located a total of 544 sites, ranging from ancient Hawaiian temples to early twentieth century ranch structures. The wealth of archaeological remains revealed by the 1976-80 survey resulted in the entire island of Kaho'olawe being designated a National Historic Monument. It is the only island ever to be so designated. The results of this survey were written up by archaeologist Robert Hommon in the Multiple Resource Nomination Form for the Historic Resources of Kaho'olawe, Items 7 & 8 (Hommon 1980), a copy of which is on file at the Hawaii State Historic Preservation Office.

18.) The following is a list of the sites and their individual features located within the area of Aikupau(ou). This list is taken from the National Register of Historic Places Inventory Nomination Forms on file at the Hawaii State Historic Preservation Office.

Site 636: a habitation complex consisting of eight features situated behind a sand beach adjacent to a small cove.

Feat. A: a midden deposit measuring 6 by 16 meters and approximately 30 to 40 centimeters thick, consisting of marine shell, fish bone and basalt flakes.

Feat. B: a stone edged habitation terrace 4 by 7 meters, filled with sandy soil. Midden remains were present and artifacts include volcanic glass flakes, flakes and cores of basalt, and a broken historic bottle (which was collected). Hydration-rind tests on one of the volcanic glass flakes gave a date of A.D. 1585±42.

Feat. C: a midden deposit measuring 1.5 by 3 meters, consisting of marine shell and basalt flakes.

Feat. D: a midden deposit measuring 2 meters in diameter, consisting of marine shell, fragments of coral and fish bone, four volcanic glass flakes and a number of basalt flakes. Hydration-rind tests on one of the basalt glass flakes gave a date of A.D. 1540±30.

Feat. E: a possible shrine consisting of a platform 2.5 by 3 meters, with a wall of later construction abutting on the inland side. The interior of the platform is filled with chunks of coral. Midden remains were present and artifacts include a single volcanic glass core, a basalt core and basalt flakes. Hydration-rind tests [on the volcanic glass core?] gave a date of A.D. 1573±36.

Feat. F: a midden deposit measuring 9 by 10 meters, consisting of marine shell, flakes and cores of basalt and volcanic glass. Hydration-rind tests on one of the volcanic glass flakes gave a date of A.D. 1549±39. In 1982-3, three possible stone-lined firepits were located within the area of the deposit and six coral abraders and a sea urchin spine abrader were noted on the surface.

Feat. G: a midden deposit measuring 5 by 8 meters, consisting of marine shell, fragments of coral, one volcanic glass flakes and a number of basalt cores. Hydration-rind tests on the volcanic glass flake gave a date of A.D. 1534±37.

Feat. H: a slab-lined firepit measuring 0.4 by 0.5 meters, constructed of basalt rocks and filled with ash. A few marine shells

were present along with one fragment of coral and one volcanic glass flake. Hydration-rind tests on one of the volcanic glass flakes gave a date of A.D. 1434±36.

Site 637: This is a midden scatter covering an area c. 5.0 meters in diameter. It includes shell midden, fragments of coral, flakes of basalt and volcanic glass. Hydration-rind tests on one of the volcanic glass flakes gave a date of A.D. 1454±33.

Site 638: This site consists of a habitation complex of seven features.

Feat. A; a stone walled habitation enclosure measuring 3 by 6 meters. On the surface in and around it are marine shells, basalt flakes, a core and a flake of volcanic glass and a coral file.

Feat. B; a stone edged habitation terrace measuring 3 by 5 meters. Midden remains were present and artifacts included volcanic glass flakes and cores as well as cores of basalt.

Feat. C; a stone edged habitation terrace measuring 2.5 by 3.5 meters. No midden remains were found in association with the structure.

Feat. D; a stone edged habitation terrace measuring 3 by 6.5 meters. A few marine shells were found near the feature.

Feat. E; a stone edged habitation terrace measuring 2 by 3 meters. Shell midden was present and artifacts included basalt flakes and a waterworn cobble.

Feat. F; a habitation shelter measuring 1.5 by 3 meters. Shell midden and fragments of coral were found along with flakes and cores of basalt and volcanic glass.

Site 640: A complex of five habitation terraces.

Feat. A; a stone edged habitation terrace measuring 2.5 by 5 meters. Shell midden was present and the only artifact was a coral file.

Feat. B; a stone edged habitation terrace measuring 1.5 by 5 meters. Shell midden and fragments of coral were found along with flakes of basalt.

Feat. C; a stone edged habitation terrace measuring 2.5 by 2.5 meters. Shell midden was present, but no artifacts were found.

Feat. D; a stone edged habitation terrace measuring 4.5 by 6.5 meters. Shell midden and fragments of coral were found along with flakes of basalt and volcanic glass.

Feat. E; a stone edged habitation terrace measuring 1.5 by 1.5 meters. Shell midden was present, but no artifacts were found.

Site 647: A complex of six features.

Feat. A; a stone edged habitation terrace measuring 2.0 by 4.25 meters. Shell midden and fragments of coral were found along with flakes of basalt and volcanic glass. A slab lined firepit measuring 1.0 by 1.0 meters is also present. Hydration-rind tests on one of the volcanic glass flakes gave a date of A.D. 1545±34.

Feat. B; a stone edged habitation terrace measuring 2.5 by 4.0 meters. A single marine shell was found along with flakes of basalt and one of volcanic glass. Hydration-rind tests on the volcanic glass flake gave a date of A.D. 1496±41.

Feat. C; a stone edged habitation terrace measuring 2.0 by 3.5 meters. The presence of four pieces of branch coral in the wall construction suggest that it may have been a shrine. Cowrie shells and fragments of coral were found, but no artifacts.

Feat. D; a stone edged habitation terrace measuring 1.0 by 3.0 meters. A few marine shells were found along with fragments of coral and flakes of basalt.

Feat. E; a stone edged habitation terrace measuring 2.0 by 4.25 meters. Shell midden and fragments of coral were found along with flakes and cores of basalt and volcanic glass. Hydration-rind tests on one of the volcanic glass flakes gave a date of A.D. 1539±28.

Feat. F; a boulder with a crude cairn built on top of it. A single marine shell was found nearby, along with a basalt adze fragment found at the base of the boulder.

Site 649: a midden scatter 2 meters in diameter consisting of marine shells.

Site 651: a midden deposit measuring 1 by 4 meters and consisting of a dense deposit of marine shells.

Site 652: a midden scatter measuring 3 by 5 meters consisting of two marine shells and four fragments of coral.

Site 655: a coral scatter which may represent the remains of a shrine. It measures 2 by 4 meters.

To the north of Aikupau(ou), closer to Lae o Kuikui are another scatter of sites. These include:

Site 641: a fireplace and associated midden scatter. The fireplace measures 1 by 0.8 meters and is surrounded by a 3 by 3 meter soil remnant, encircled by bedrock. The midden scatter measures 17 by 10 meters. It includes marine shells, sea urchin spines, and fragments of coral, but no artifacts.

Site 642: a midden scatter 20 meters in diameter with marine shells, fragments of coral, basalt and volcanic glass flakes and a waterworn pebble.

Site 644: a possible shrine consisting of a stone edged platform, measuring 2 by 4 meters, and filled with coral. An attached alignment 4 meters long abuts the platform on the south end. There is also an associated coral scatter. Midden remains present include marine shells, fragments of coral and a dense deposit of fish bones.

Site 645: a possible shrine consisting of a scatter of coral, limpet shells and waterworn cobbles on a natural ledge and washing down the adjacent slope. There is also evidence of a collapsed wall.

Site 646: a midden scatter 10 meters in diameter consisting of limpet shells and basaltic glass flakes.

Further south along the coast between Aikupau(ou) and Hakioawa, are two more sites which possess evidence of Hawaiian habitation.

Site 577: a very thin midden scatter measuring 30 by 70 meters, with marine shells, fragments of coral and a cowrie shell lure.

Site 578: a very thin midden scatter measuring 20 by 40 meters, with cowrie shells, fragments of coral, basalt flakes and one unworked piece of basalt glass.

19.) These were Site 636, Feature E; Site 647, Feature C and Site 655.

20.) In his general review of the archaeological remains discovered during the 1976-80 survey, Robert Hommon noted that; "A number of enclosures and terraces distributed along the coast have been identified as *ko'a* or fishing shrines on the basis of data on similar features on other islands. The primary defining criterion is the presence of a concentration of unworked coral: either irregular chunks of branch coral or water-worn coral cobbles. The coral is heaped or scattered on the floor of the feature, and not built into a structure, though coral is also seen sometimes in structural walls. As

noted previously, coral was evidently a symbol of sanctity." (Hommon 1980:46)

21.) Hawaiian historian Samuel Kamakau, writing in the 1860s, provided the following detailed description of the varied types of *ko'a*. "*Heiau ko'a*, fishing shrines, were sometimes large, but most of them were small. Some consisted of a house enclosed by a wooden fence, and banana offerings were made in them; but most were exposed to view and were rounded heaps of stones with a *kuahu* altar where pigs were baked. When the offering had been made and the pig eaten, the *ko'a* was left exposed but the *imu* and its stones were covered over with dirt and packed down. *Heiau ko'a* were close to the beach or in seacoast caves, on lands with cliffs. The purpose of the *heiau ko'a* was important. The *ko'a* brought life to the land through an abundance of fish; there was no other purpose for the *ko'a* but this. There were many kinds of gods of the people who worshiped fishing gods. The people whose god was *Ku'ula* built *Ku'ula ko'a*; those whose god was *Kanemakua* built *Kanemakua ko'a*, and those of *Kinilau*, *Kamohoali'i*, and *Kaneko'a* did likewise, and so there were many, many *ko'a*.

"*Ko'a* were also built to increase the 'o'opu fishes in streams, rivers, and fishponds. On islets inhabited by birds, the bird catchers who caught birds by imitating their cries and then snaring them (*kono manu*), or who smoked them out of their nesting holes (*puhi manu*), or who drew them out from their holes (*pu manu*) also set up *ko'a* to give life to the land by an abundance of birds." (Kamakau 1976:133)

The *ko'a* found at *Aikupau(ou)* were probably similar to those referred to by Kamakau as, "*ko'a* shrines set up for the increase of deep sea fishes (*ko'a ku'ula ho'oulu i'a*)". (Kamakau 1964:33)

22.) In describing the ancient Hawaiian methods of deep-sea fishing, Samuel Kamakau mentions a number of different types of fishing grounds. These were termed *ko'a hohonu*, literally the "deep-sea fishing grounds", and included "the *kukaula* grounds, of eighty fathoms more or less in depth; the *ka'aka'a* grounds of the *kahala* and *'ahi* fishes; and the *pohakialoa*, the deepest of all the fishing grounds - two or three hundred fathoms deep and even up to four hundred (*lau*) *anana* deep." (Kamakau 1976:75) If the location of such a fishing ground were known only to a certain fisherman and his family it was called a *ko'a huna*, or secret fishing ground. Those fishing grounds located by landmarks were called *ko'a kuapu'e*, "thrust-up back" *ko'a*. (Kamakau 1976:76-78) The types of traditional fishing methods used in fishing the various *ko'a* situated off *Kaho'olawe* are described by A.D. *Kahaulelio* in his 1902 article on Hawaiian fishing lore. (see Appendix L)

23.) *Pukui & Elbert 1971:144.*

24.) These two possible shrines are Sites 644 and 645. Site 644 consists of a stone edged platform, measuring 2 by 4 meters, and filled with coral. An attached alignment, 4 meters long, abuts the platform on the southern end. There is also an associated coral scatter. Midden remains present include marine shells, fragments of coral and a dense deposit of fish bones. Site 645 consists of a scatter of coral, limpet shells and waterworn cobbles on a natural ledge and washing down the adjacent slope. There is also evidence of a collapsed wall. (National Register of Historic Places Inventory Nomination Forms on file at the Hawaii State Historic Preservation Office)

25.) In his report summarizing the findings made during the 1976-80 archaeological survey of Kaho'olawe, Robert Hommon indicated that twenty-nine natural outcrops of volcanic glass had been located by the survey teams. (Hommon 1980:8:17) Some of these showed signs of having been worked, ie. having had pieces of volcanic glass removed to be used as cores.

26.) A more detailed description of volcanic glass and its possible prehistoric uses can be found in Barrera & Kirch 1973:185-6, and Reeve 1983:230-31.

27.) The sample was taken from Site 636, Feature E.

28.) All volcanic glass samples submitted for dating by the 1976-80 survey were analysed by the Bishop Museum Volcanic Glass Dating Laboratory for Hawaii Marine Research, Inc.

29.) The efforts of this later archaeological team were concentrated at Site 636. The full report of this work can be found in Rosendahl 1987:IV-80 to IV-96. Test pits were dug at five of the site's eight features. Their findings are briefly summarized below.

Site 636:

Feat. A: Test Pit 1, was dug in an area of redeposited alluvium and beach sand and contained no intact cultural deposit

Test Pit 2, cut through 90 centimeters of cultural deposit containing shell midden, coral, charcoal fragments, fire-cracked waterworn cobbles, fish bone and scales, bird bone, basalt flakes, flakes of volcanic glass, two fishhooks, a bird bone pick, four coral abraders and five pieces of worked bone. Quite interesting from the point of view of dating the feature was the discovery of eight flakes of what the report describes as "quartz" recovered from Layer III. The presence within the deposit of this foreign stone (quartz is not found naturally in these volcanic islands) flaked to form a traditional style of tool, suggests that the site was occupied into the historic period. A charcoal sample collected from this trench yielded a radiocarbon date of "107.7±3.6% modern" (Rosendahl 1987:IV-95), calibrated at "1670-1950+" (Rosendahl 1987:V-9) [the depth within the deposit at which this and other samples were taken is indicated on page V-9] Hydration-rind measurements on five volcanic glass flakes from this trench yielded dates of "AD 1791-1807 [1799±8], 1793-1809 [1801±8], 1789-1813 [1801±12], 1813-1833 [1823±10], 1855-1883 [1869±14]" (Rosendahl 1987:IV-

96, V-25). Interestingly, the older dates come from the upper levels of the excavation (1799±8, from Layer I, level 2, 10-20cm below surface), while the younger dates occur in the deeper levels of the deposit (1869±14, from Layer IV, level 8, 70-80cm below surface).

Test Pit 3, revealed an intact cultural deposit buried under 145 cm. of aeolian sand. The cultural deposit was 40 cm. thick. It included some waterworn basalt and coral cobbles as well as a variety of midden. It also yielded a flake of polished basalt, flakes of rough basalt, one flake of volcanic glass and one quartz flake. Radiocarbon tests on a shell sample from this trench yielded a date of "less than 130 BP" [before present] (Rosendahl 1987:IV-95), calibrated at "1820-1950+" (Rosendahl 1987:V-9). Hydration-rind measurements on a volcanic glass flake recovered from this trench yielded a date of "AD 1829-1849" [1839±10] (Rosendahl 1987:IV-96).

Feat. B: Test Pit 1, was cut through the face of the terrace. Cultural material recovered included shell midden, charcoal fragments, fish bone, basalt flakes, flakes of volcanic glass, a basalt hammerstone, a broken bone fishhook and four coral abraders. It was suggested from these excavations that; "The terrace may originally have been constructed in two stages. The sandy soil deposit (Layer II) could indicate that the terrace visible now dates to relatively late in the period of use of this beach front. It is even possible that this terrace was used historically, as perhaps is suggested by the presence of an old gin bottle on the site." (Rosendahl 1987:IV-87). The report later states that; "The rectangular case bottle on the surface adjacent to 636B should be considered intrusive; it probably dates to the late 1800s and may represent the early ranching period." (Rosendahl 1987:IV-94,95). Radiocarbon tests on a shell sample from this trench yielded a date of "100.9±0.8% modern" (Rosendahl 1987:IV-95), calibrated at "1790-1950+" (Rosendahl 1987:V-9). A charcoal sample was dated to "500+90", calibrated at "1700-1955" (Rosendahl 1987:V-9). Hydration-rind measurements on four volcanic glass flakes from this trench yielded dates of "1829-1849 [1839±10], 1821-1853 [1837±16], 1821-1849 [1835±14], 1829-1849 [1839±10]" (Rosendahl 1987:V-25) [the dates shown on page IV-96 are not volcanic glass, but radiocarbon dates included here incorrectly].

Feat. C: Test Pit 1, uncovered 30 cm. of cultural deposit containing sparse shell midden as well as flakes of basalt and volcanic glass. A charcoal sample collected from this trench yielded a radiocarbon date of "99.9±0.8% modern" (Rosendahl 1987:IV-95), calibrated at "1660-1955" (Rosendahl 1987:V-9). Hydration-rind measurements on a volcanic glass flake recovered from this trench yielded a date of "1824-1856 [1840±16], 1828-1852 [1840±12]" (Rosendahl 1987:V-26) [once again on page IV-95, Rosendahl has incorrectly listed the radiocarbon dates instead of the volcanic glass dates].

Feat. D: Test Pit 1, revealed a dense cultural deposit c. 25 cm. thick containing shell midden, fish bone, bird bone, basalt and volcanic glass flakes, an octopus lure, two coral abraders, 2 sea urchin spine abraders, a polished basalt flake and two pieces of worked bone.. A charcoal sample collected from this trench yielded radiocarbon date ranges of "AD 1322-1341" and "1390-1650" (Rosendahl 1987:IV-95). Hydration-rind measurements on two volcanic glass flakes from this trench yielded dates of "AD 1689-1725 [1707±18], 1691-1747 [1719±28]" (Rosendahl 1987:IV-96).

Feat. F: Test Pit 1, uncovered a cultural deposit 52-54 cm. thick containing shell midden, flakes of volcanic glass and a piece of drilled bone. Three charcoal samples collected from this trench yielded

radiocarbon dates of "98.2±1.5% modern", calibrated at "1450-1955" (Rosendahl 1987:V-9), "101.3±0.6% modern", calibrated at "1840-1950+" (Rosendahl 1987:V-9) and "AD 1440-1650" (Rosendahl 1987:IV-95). Hydration-rind measurements on seven volcanic glass flakes from this trench yielded dates of "AD 1825-1845 [1835±10], 1783-1827 [1805±22], 1869-1885 [1877±8], 1867-1883 [1875±8], 1866-1882 [1874±8], 1779-1819 [1799±20], 1774-1814 [1794±20]" (Rosendahl 1987:IV-96).

Test Pit 2, revealed a stratigraphy similar to test pit 1, but yielded flakes of basalt and volcanic glass, four pieces of worked bone, a bone fishhook, an octopus lure, 16 coral abraders and two sea urchin spine abraders. A charcoal sample collected from this trench yielded a radiocarbon date of "98.4±0.8% modern" (Rosendahl 1987:IV-95), calibrated at "1290-1955" (Rosendahl 1987:V-9). Hydration-rind measurements on four volcanic glass flakes from this trench yielded dates of "AD 1822-1854 [1838±16], 1824-1844 [1834±10], 1823-1859 [1841±18], 1817-1865 [1841±24]" (Rosendahl 1987:IV-96).

30.) All of these volcanic glass samples were dated by MOHLAB of State College, Pennsylvania. A detailed description of their methodology in determining dates for these samples can be found on pages V-12 to V-14 of the Rosendahl report. As of the writing of this report both MOHLAB and the Bishop Museum Volcanic Glass Dating Laboratory have gone out of business.

31.) Dates from Feat. D place its occupation earlier than the other structures, around the early 1700s. The dates obtained from the other features all fall between the late 1700s and the mid to late 1800s. A full listing of these dates is shown in note 34 below.

32.) These dates are taken from Rosendahl 1987:L-3.

33.) One charcoal sample obtained from the lower layers of Feature D yielded two possible date ranges, of "1322-1341" and "1390-1650" A.D. (Rosendahl 1987:IV-95). The lowest sample taken from Feature F provided a date of 1440-1650 A.D. (Rosendahl 1987:IV-95).

34.) The radiocarbon dates obtained from charcoal samples collected from Site 636 during the excavations of 1982-3 are listed below according to the feature and the test pit within which they were found. These are shown in relationship to the volcanic glass dates recovered from the same trenches. Dates from samples of volcanic glass collected off the surface by the 1976-80 survey are listed along with their "recalibrated" dates (in parenthesis). Those radiocarbon dates marked with an # lie within a date range which may have been influenced by fallout from atomic testing.

1982-3 Excavations		1976-80 Survey
<u>Volcanic Glass Dates</u>	<u>Radiocarbon Dates</u>	<u>Volcanic Glass Dates</u>
		(Recalibrated)

Feat. A

Test Pit 2	1791-1807	1799±8	1670-1950+	
	1793-1809	1801±8		
	1789-1813	1801±12		
	1813-1833	1823±10		
	1855-1883	1869±14		
Test Pit 3	1829-1849	1839±10	1820-1950+	
Feat. B				1585±42 (1842)
Test Pit 1	1829-1849	1839±10	1700-1955#	
	1821-1853	1837±16	1790-1950+	
	1821-1849	1835±14		
	1829-1849	1839±10		
Feat. C				
Test Pit 1	1824-1856	1840±16	1660-1955#	
	1828-1852	1840±12		
Feat. D				1540±30 (1831)
Test Pit 1	1689-1725	1707±18	1322-1341	
	1691-1747	1719±28	1390-1650	
Feat. E				1573±36
Feat. F				1549±39 (1838)
Test Pit 1	1825-1845	1835±10	1450-1955#	
	1783-1827	1805±22	1840-1950+	
	1869-1885	1877±8	1440-1650	
	1867-1883	1875±8	1290-1955#	
	1866-1882	1874±8		
	1779-1819	1799±20		
	1774-1814	1794±20		
Test Pit 2	1822-1854	1838±16		
	1824-1844	1834±10		
	1823-1859	1841±18		
	1817-1865	1841±24		
Feat. G				1534±37
Feat. H				1434±36

35.) In their excavations of Site 636, Feature A, the archaeologists came upon nine flakes of "quartz", eight within test pit 2 and one from test pit 3. (Rosendahl 1987:V-85)

36.) This list is found in Table 5-1. (Rosendahl 1987:V-9)

37.) Rosendahl 1987:IV-48. Site 363, Feature E, is situated atop the western headland of Honokoa bay, a sheltered inlet along Kaho'olawe's northwestern coast. Honokoa is known to have been occupied as late as 1875 when it was visited by King David Kalakaua. (Ka Lahui Hawaii December 23, 1875:2:c.2 and December 30, 1875:4:c.2)

38.) Robert Hommon has suggested that this "chert" may be of a type which he saw occurring naturally on Kaho'olawe. Until

such time as these flakes are available for examination, their true nature cannot be determined. They presently rest, along with the other archaeological material recovered from the 1982-83 excavations, in the hands of Paul H. Rosendahl, Ph.D., Inc..

39.) A similar situation was encountered during excavations along the proposed Waimea-Kawaihae road corridor, when a flake of grey fint (another type of introduced stone) was unearthed at the site of a Hawaiian field shelter occupied in the early post-contact period. (Reeve 1983:227)

40.) See note 12.

Chapter II

HAKIOAWA

"Taouroe will be eternally uninhabited, for life there is impossible."

(Jacques Arago *Voyage Autour
Du Monde* 1840:229-30)

On the 15th of August, 1819, the French corvettes *Uranie* and *Physicienne*, under the command of Captain Louis Freycinet, left Kawaihae on the leeward coast of the island of Hawai'i and set sail for Lahaina, Maui. Aboard the *Uranie* travelled a young man with "a dark complexion, animated eyes; a portfolio under his arm."¹ This was Jacques Etienne Victor Arago, an artist accompanying the voyage. Arago was one of a handful of civilians attached to this government sponsored exploring expedition. He had been commissioned to set down on paper and canvas a visual record of the varied islands and continents touched upon by the two vessels on their circumnavigation of the globe. Prior to their departure for Lahaina, Arago and the other members of Freycinet's expedition had spent the previous few days visiting the young king Liholiho, who had installed himself and his court at Kawaihae following the recent death of his father, Kamehameha the First.²

On their departure from Kawaihae, the *Uranie* and *Physicienne* crossed the Alenuihaha channel. Their course appears to have taken them along the southern coast of Kaho'olawe and around its western tip. Captain Freycinet, in his narrative of the voyage, makes but brief mention of the island. "We also passed rather close along the coast of Tahourowe [Kaho'olawe]. This island, not very elevated, is exposed to very heavy ocean swells on its southern side. The precipitous cliffs there are formed by horizontal layers of lava."³

The island appears to have made a much stronger impression on the youthful Arago. In his own account of the voyage the artist wrote;

Taouroe arose before the corvette, reddish on the sides, black at her base, copper at her summit; Taouroe, island of rock, embattled, notched, at the peak in pointed ridges, similar to a decrepit wall of lava chiselled by the centuries. Who, then, has touched this ground barren of any greenery, who then has tried to scale these formidable ramparts on which the waves thunder and crash with such violence? No one. And yet the long and perilous reefs surround Taouroe, as if the crags had to fear the conquest of man, as if they wanted to defend [?] against all greediness the wealth that is hidden perhaps in its sides. Taouroe will be eternally uninhabited, for life there is impossible.⁴

Arago's rather gothic description of Kaho'olawe's southern shore may seem a touch melodramatic to us today, but it echoes the view held by many visitors to these islands, and by a number of recent residents as well; that Kaho'olawe is, and has always been, both uninhabited and uninhabitable. For years people unfamiliar with Kaho'olawe have assumed that this tiny island, trapped in the rainshadow of Haleakala⁵, was far too dry and inhospitable to have supported human life. Many have "documented" their assertions by referring to the accounts of early voyagers such as Arago, foreigners who sailed briefly past the island, never setting foot on her shores.

If, however, one takes the time to critically examine the descriptions of Kaho'olawe recorded by the various navigators who cruised her coasts in the years immediately following western contact, it becomes evident that a goodly number of these explorers were well aware that Kaho'olawe was inhabited. Many had either been told by the natives of other, neighboring islands, that Kaho'olawe possessed a resident population, or had seen evidence themselves (such as fires at night) that people were present on the island.⁶

By plotting the courses of these vessels as they sailed past the island one can see that the majority of those voyagers who described Kaho'olawe as uninhabited chose to skirt the western end of the island rather than risk the often turbulent waters of the Alalakeiki channel, which separates Kaho'olawe from east Maui.⁷ Though a sensible navigational decision, this choice of routes meant that the impression gained of the island was shaped by the sight of Kaho'olawe's forbidding southern cliff and its dry western end, vegetated by little more than sun bleached pili grass and low shrubs.⁸ What most of these chroniclers failed to see were the deep-cut gulches and sand fringed bays of the north and northeastern coasts which, at least during the early years of the historic period, appear to have supported the bulk of the island's population.⁹

The perspective from which each of these early voyagers viewed Kaho'olawe helped to shape his image of the island. "Uninhabited", "well populated", "barren", "probably a good Yam Island"¹⁰; all of these phrases can be found in early accounts describing Kaho'olawe. Each reflects what the author of that account had seen or heard of the island. The same has been true in the centuries since. Seeing the island as it is today, denuded by years of overgrazing and scarred by heavy erosion, has led many people to doubt that anyone could ever have lived there.

Even those who visited Kaho'olawe and had themselves seen physical evidence of human presence on the island, such as Gilbert McAllister who conducted a quick, one week archaeological survey of the island back in 1931, seemed unable to accept that Kaho'olawe ever supported permanent habitation.¹¹ In the conclusion of his Archaeology of Kahoolawe, McAllister expressed the opinion that in ancient times Kaho'olawe was home to only, "A transient population, without taro patches and permanent abodes, with a paucity of material objects".¹²

Yet, if you take the time to read through McAllister's report, you will come upon descriptions of house sites and *heiau* (temples), shrines and burials. You will find listed among the artifacts recovered from the island; fishhooks, adzes, lamps and cooking stones, all trappings of traditional Hawaiian domestic life. You will also find listed among his artifacts eight *ulu maika*. These carefully shaped basalt or coral discs were used by the ancient Hawaiians as gaming stones in a sport somewhat similar to bowling. To date, a total of at least twenty *ulu maika* have been recovered from the island of Kaho'olawe, most from its uplands.¹³ It seems highly unlikely that a game such as *ulu maika* would have been played on the upper slopes of a uninhabited island by "a transient population" of visiting fishermen.

These and other scraps of archaeological evidence, revealed by McAllister's report, suggested as early as the 1930s that both McAllister and Arago were wrong, and that Kaho'olawe had at one time supported a permanent resident population.¹⁴ No one, however, was aware just how extensive that habitation had been until the late 1970s, when Kaho'olawe became the subject of an archaeological survey whose purpose was to locate and identify all of the ancient sites on the island.¹⁵ This island-wide survey, conducted between January 1976 and April 1980, identified a total of 544 sites and 2337 separate features.¹⁶

The traces of traditional settlement found during the 1976-80 survey revealed that Kaho'olawe, like the seven other major islands of the Hawaiian chain, possessed a permanent native Hawaiian population; people who built their homes on the island, who farmed its slopes and fished its waters, who raised their temples, worshipped their gods, and buried their loved ones on its soil. To these people, the island of Kaho'olawe was home.¹⁷

Nowhere is this more evident than at the bay of Hakioawa on the island's northeast coast. Here can be found the remains of an ancient settlement so dense that it can almost

be described as a village.¹⁸ This type of nucleated community was unusual in ancient Hawai'i, where, except around the residences of high chiefs, settlement usually consisted of individual hamlets scattered among agricultural fields or along the sea coast.¹⁹ At Hakioawa can also be found a number of stone edifices too large to have served as house sites. These appear to have been religious structures; temples whose construction and consecration have required the involvement of members of the chiefly and priestly classes.²⁰

Hakioawa, like most of the bays lying along the northern and eastern coasts of Kaho'olawe, consists of a sand and boulder beach sheltered by rocky headlands. The beach and valley bottom form a sort of open amphitheater encircled by ridges of crumbling lava. Just back of the beach, a pair of deep gulches run inland, separated by a gradually widening central ridge.²¹ The vast majority of Hakioawa's archaeological sites lie along the crest of this central ridge and atop the headlands which flank the beach. What sites, if any, once existed on the valley floor are now buried beneath a thick layer of recently deposited alluvium.²²

On the ridges rising inland from the beach are located numerous stone faced terraces, the foundation platforms of traditional Hawaiian pole and thatch houses. The inhabitants of Hakioawa appear to have made the best use of the natural terrain, situating their dwellings along the slope so as to catch the cooling trades and have a good view of the waters which gave them their livelihood. These house platforms can often be seen to cluster together in groups of three or four, reflecting the tendency among traditional Hawaiian households to have different structures for different domestic activities. Such household clusters, or *kauhale*, often consisted of a cooking house (*hale kahumu*), a sleeping house (*hale noa* or *hale moe*), a men's eating house (*hale mua*) and a women's eating house (*hale 'aina*). The number of structures within a *kauhale*, of course, varied

greatly depending on the prosperity and social standing of the family which occupied it.²³

Around these house sites can often be found scatters of shell midden²⁴ and artifacts; the daily refuse of ancient life. In places along these ridges are boulder outcrops into the surface of which have been carved human figures. Other large natural boulders show evidence of having been used as grinding stones to polish the beveled blades of stone adzes. These traces of the valley's former occupants remain as they were left, relatively undisturbed by the passage of time. Wandering among these sites, it is easy to forget that centuries have passed since the people who were born and raised in this valley abandoned it for the last time. Ironically, it has been Kaho'olawe's harsh environment and her relative isolation, elements which once caused many people to believe that the island had never been inhabited, which have helped to preserve this evidence of human presence. Her solitude has protected her from the development which has so dramatically alter the face of her sister islands, destroying in the process innumerable ancient sites. The valley of Hakioawa survives today as one of the few places left in these islands where one can still see the relatively intact remains of an entire traditional Hawaiian community.

Three physical factors appear to have played a significant role in Hakioawa's development as one of Kaho'olawe's major population centers. The first is the relatively gentle slope of its encircling ridges. Within most of the island's bays, the ridges which flank the beach rise relatively steeply from the level valley floor. In such areas, house structures could only be built on the valley bottom, where they might be subject to stream flooding, or on the top of the ridge crests far from the water. In contrast, Hakioawa's slopes are low and gradual, providing gentle ground on which to construct house terraces, and allowing easy access to the sea coast and valley floor. This is

especially true of the valley's central ridge, a physical feature not found in any of the other bays. Thus the physical topography of the valley, combined with the rich marine resources of its inshore waters, allowed it to house and support a relatively sizeable native population.

Another natural advantage which Hakioawa had over many of its sister bays was the presence of potable water. Not only did Hakioawa's two feeder streams run intermittently throughout the year, leaving standing water in the rock pools along the streambeds²⁵, but the valley also appears to have been the location of a brackish water well. Harold Stearns, who visited Kaho'olawe in 1939 to study its geology, noted that in former times there had existed a Hawaiian well at Hakioawa, but that in recent years it had been filled in with sediment. In the early 1890s, the Kynnersley Brothers, who then controlled the lease to the island, dug a stone-lined ranch well at Hakioawa, the remains of which can still be seen on the flats back of the beach. Both of these wells tapped into Kaho'olawe's freshwater aquifer, a lense of potable water formed and replenished by the island's heavy winter rains.²⁶ With the increasing degradation of the island's natural environment, which began with the introduction of grazing animals in the mid 19th century, this freshwater lense has gradually diminished.

The final element which contributed to the bay's importance was its proximity to Maui. Hakioawa lies only seven miles across the Alalakeiki channel from Makena, and is the closest to the Maui coast of any of Kaho'olawe's major bays. Because of Kaho'olawe's small size and her relatively arid climate, the island, in former times, lacked the range of environmental resources available on the larger islands of the Hawaiian chain. Plant foods such as *kalo*, one of the staples of ancient Hawaiian life²⁷, and *awa*, so important in traditional religious ceremonies²⁸, had to be imported to the island. At the same time Kaho'olawe possessed resources, such as the fine grained basalt from the adze quarries at

Pu'u Moiwi, which were highly valued and almost certainly exported to the surrounding islands. In ancient times, contact and trade between Kaho'olawe and her closest neighbor, Maui, must have been relatively constant. Hakioawa, situated just across the channel from the larger island, most probably served as a major terminus for this two way canoe traffic.

The number and size of the religious structures situated within Hakioawa suggest that, at least for part of its occupation, the valley may have served as the religious and political center of Kaho'olawe.²⁹ Hakioawa may very well have been home to a minor chief, or a *konohiki*, a land manager, whose task would have been to oversee the island on the behalf of the higher chief who controlled it.

The physical location of Hakioawa, just across the Alalakeiki channel from the district of Honua'ula, Maui, might suggest that at one time, all or part of Kaho'olawe was under the control of the Honua'ula chiefs, and that Hakioawa was their "base of operations" on the island. Certainly we know that, at the time of Captain Cook's arrival in the islands, Kaho'olawe was under the suzerainty of Kahekili, the *ali'i nui* (high chief) of Maui.³⁰ Historic accounts also suggest that there were strong ties between the people of Kaho'olawe and the residents of Honua'ula.³¹

Despite archaeological evidence that Hakioawa supported what, at one time, was probably the largest Hawaiian community on Kaho'olawe, very few of the surviving oral traditions related to the island make mention either of the bay or its settlement. One tradition which does refer directly to Hakioawa concerns the legendary figure 'Ai'ai, son of Ku'ula, the god of fishermen.³² It was 'Ai'ai who taught to the ancient Hawaiians the art of fishing in all its forms, and he who established the first offshore fishing stations (*ko'a*) and built the first fishing shrines (*ku'ula*).

One particular version of the 'Ai'ai legend, recorded around the turn of the century, mentions the establishment of

a fishing shrine in the bay of Hakioawa. This story, entitled "Aiai, Son of Ku-ula", comprises the second part of the legend of "Ku-ula, The Fish God of Hawaii", first published in The Hawaiian Annual of 1901.³³ The publisher of the Annual, Thomas Thrum, prefaces the legend by saying; "The story of Ku-ula, considered by ancient Hawaiians as the deity presiding over and controlling the fish of the sea - and still believed in by many of them today - has been translated and somewhat condensed by M.K. Nakuina from an account prepared for the ANNUAL by Moke Manu³⁴, a recognized legendary bard of these islands. The name of Ku-ula is known on each of the islands comprising the Hawaiian group, from the ancient time, and the writer gives the Maui version as transmitted through the old people of that island."³⁵

According to this Maui version of the legend, Ku'ula³⁶ dwelt with his wife Hinapukuia³⁷ at a place called Lehoula in the land of Aleamai. Aleamai lies today within the district of Hana on the eastern coast of the island of Maui. Ku'ula made his living as a fisherman, and through the years he acquired an immense knowledge of and control over the various creatures of the sea. As the legend explains it, Ku'ula "was possessed with wonderful or miraculous power (*mana kupua*) in directing, controlling, and influencing all fish of the sea".³⁸

"While Ku-ula and his wife were living at Leho-ula he devoted all his time to his chosen vocation, fishing. His first work was to construct a fish-pond handy to his house but near to the shore where the surf breaks, and this pond he stocked with all kinds of fish."³⁹ The fish from this pond provided a steady source of food for Ku'ula and his family. The fame of this fishpond, the first ever to have been built in these islands, soon spread throughout the surrounding region. It was not long before Ku'ula's skill as a fisherman came to the attention of Kamohoalii, the chief of the district⁴⁰, who appointed Ku'ula to be his head fisherman. With access to Ku'ula's wondrous pond, "which was well

stocked with all kinds of fish"⁴¹, the chief's table "was regularly supplied with all rare varieties, whether in or out of season. Ku-ula was his mainstay for fish-food and was consequently held in high esteem by Kamohoalii, and they lived without disagreement of any kind between them for many years."⁴²

During these years of peace and plenty Hinapukuia gave birth to a son whom the couple named 'Ai'ai.⁴³ As 'Ai'ai grew to manhood, his father's instructed him in all the skills and secrets of his profession. 'Ai'ai's newly acquired fishing skills were soon put to the test when a giant eel (*puhi*) crossed the channel from Moloka'i and began stealing fish from his father's pond. Using his father's fishhook, *manaiaakalani*, 'Ai'ai's was able to catch the eel, drag it ashore and kill it.

This was not, however, the end of the family's troubles, for the *puhi* had been the 'aumakua (family god) of an 'ohana (an extended family) on Moloka'i, and it was not long before the *kahu* (keeper) of the eel came to Hana to find out what had become of his 'aumakua. On learning that the eel had been killed, the *kahu* set out to take revenge on Ku'ula and his family. Winning his way into the confidence of the chief, the *kahu* poisoned Kamohoalii's mind against his head fisherman, convincing him that Ku'ula should be killed. When Ku'ula learned of this threat to his life, he called his son to him, and after entrusting to his care the fishhook *manaiaakalani* and certain other powerful gifts, said to 'Ai'ai; " I hereby confer upon you all my power and knowledge. Whenever you desire anything call, or ask, in our names, and we will grant it. We will stand up and go forth from here into the sea and abide there forever; and you, our child, shall live on the land here without worrying about anything that may happen to you."⁴⁴

Convinced by the *kahu* that Ku'ula had insulted him, Kamohoalii ordered that Ku'ula's house be burnt to the ground, with the family inside it. The chief's men bound

Ku'ula, his wife and son and set the house afire. But; "Before the fire was lit, the ropes with which the victims were tied dropped off from their hands."⁴⁵ True to his word, Ku'ula and his wife took spirit form and slipped out of the house into the sea. With Ku'ula's departure, all the fish and other sea creatures left the waters of Hana. Unlike his parents, 'Ai'ai retained his material form. Escaping the the burning house, he sought refuge in a nearby cave.

After a time 'Ai'ai left this sanctuary and went to dwell with a family who had befriended him. Since the departure of his parents, the waters around Hana had been devoid of sealife, and the family had been unable to catch any fish for its table. To help his new friends;

Aiai picked up the stone ["the stone fish god, Pohakumuone"] and they went down to Lehoula, and setting it down at a point facing the pond which his father had made he repeated these words: "O Ku-ula, my father; O Hina, my mother, I place this stone here in your name, Ku-ula, which action will make your name famous and mine too, your son; the keeping of this ku'ula stone I give to my friend, and he and his offspring hereafter will do and act in all things pertaining to it in our names."

After saying these words he told his friend his duties and all things to be observed relative to the stone and the benefits to be derived therefrom as an influencing power over such variety of fish as he desired. This was the first establishment of the *ko'a ku-ula* on land, -- a place where the fisherman was obliged to make his offering of the first of his catch by taking two fishes and placing them on the ku-ula stone as an offering to Ku-ula.⁴⁶

In this way 'Ai'ai established the first of many fishing shrines to be set up throughout the islands.

The legend goes on to say that; "After living for a time at Hana Aiai left that place and went among the different islands of the group establishing fishing ko'as (*ko'a aina aumakua*). He was the first to measure the depth of the sea to locate these fishing ko'as for the deep sea fishermen who go out in their canoes, and the names of many of these ko'as

located around the different islands are well known."⁴⁷
 'Ai'ai also taught the people how to make various fish nets and lines.

"Thus was the good work of Aiai in establishing kuulas, stations and fish stones continued all around the island of Maui.⁴⁸ It is also said that he visited Kahoolawe and established a kuula at Hakioawa, though it differs from the others, being built on a high bluff overlooking the sea, somewhat like a heiau (temple), by placing stones in the form of a square in the middle of which was left a space wherein the fishermen of that island laid their first fish caught as a thank offering. Awa and kapa were also placed there as an offering to the fish deities."⁴⁹

Moke Manu's account of the 'Ai'ai legend provides us with a detailed description of the *ko'a ku'ula* which 'Ai'ai is said to have set up at Hakioawa.⁵⁰ Using his account as a guide, it should be possible to examine the various archaeological sites within the valley to see if any bear a resemblance to the shrine described in the legend.

Our first clue, of course, is in the placement of the structure, "on a high bluff overlooking the sea". This narrows our search to the crests of the two headlands which enclose the bay. None of the stone remains situated on Hakioawa's northern headland are at all comparable to Manu's description. On the southern headland, however, we have two structures which take "the form of a square".

The smaller of these two structures⁵¹ was first noted by J.F.G. Stokes during his archaeological survey of Kaho'olawe, conducted in 1913. He describes it as "a small low enclosure, about 5x5 [feet], which was probably a Kuula."⁵² Gilbert McAllister, who visited the site again in 1931, gives a similar description, referring to it as "a small enclosure 3 by 5 [feet] with low walls. It is surrounded by several large boulders."⁵³ Like Stokes, McAllister identifies the site as a possible fishing shrine.

By the time the site was surveyed again in the late 1970s, its walls had partially collapsed, making the structure appear more like a platform than an enclosure. In the intervening years the shrine had also been modified by members of the Protect Kaho'olawe 'Ohana, who had added on to the site by piling stones against its southwest corner to form a small, level platform. This further disguised the original shape of the structure.⁵⁴

The presence of numerous pieces of branch coral in and around this site gives a good indication that, as Stokes and McAllister suggest, the small enclosure formerly served as a fishing shrine. This, combined with the structure's general shape (as it originally existed), might lead one to suggest that here we have found the physical remains of the *ko'a ku'ula* said to have been built by 'Ai'ai. The only possible inconsistency lies in that part of Moses Manu's description where he describes the site as being, "somewhat like a *heiau* (temple)".

If one reads this as meaning that the shrine was built in the form of a rectangular enclosure (as *heiau* often were), as opposed to a simple platform altar or a single upright stone, then there is no problem. If, however, one assume Manu was implying that the structure resembled a *heiau* in size, then the honor of being the site built by 'Ai'ai might logically go to a quite different structure.

About 20 meters further up the ridge from this site stands a large rectangular enclosure measuring roughly 13 by 16 meters, with stacked stone walls rising to a height of between 1 and 3 meters.⁵⁵ It is an imposing structure which must have stood out prominently against the sky line before the relatively recent growth of *kiawe* trees enshrouded it. Though the enclosure possesses no visible entrance, there are suggestions of low, inner walls and other interior features.⁵⁶ There is also a goodly amount of branch coral and some waterworn boulders scattered around the floor of the structure. This site, with its massive stone architecture,

strongly resembles what we think of today as a traditional Hawaiian *heiau*.⁵⁷ Stokes himself referred to it as "a reputed *heiau*".⁵⁸ If we take the words of the legend to mean that the *ku'ula* built at Hakioawa by 'Ai'ai was "somewhat like a *heiau* (temple)" in size, then this this structure seems the more likely candidate.

So we are left with a choice. Both sites are "built on a high bluff overlooking the sea". Both were constructed "by placing stones in the form of a square in the middle of which was left a space". Both contain pieces of branch coral, a prime component of *ko'a ku'ula*.⁵⁹ The primary difference between them lies in their size and mode of construction. The smaller site more closely resembles a "classic" *ko'a ku'ula*. The larger site fits the description of what is usually thought of as a *heiau*.

The words of the legend remain ambiguous. "It is also said that he visited Kahoolawe and established a *kuula* at Hakioawa, though it differs from the others, being built on a high bluff overlooking the sea, somewhat like a *heiau* (temple), by placing stones in the form of a square in the middle of which was left a space wherein the fishermen of that island laid their first fish caught as a thank offering. *Awa* and *kapa* were also placed there as an offering to the fish deities." Until such time as more information comes to light concerning these two sites, it is impossible to say for certain which (if either) was the shrine reputedly built by 'Ai'ai.⁶⁰

The remainder of the religious sites in Hakioawa possess less well documented cultural histories. For most of them we know almost nothing about when they were built, or for what purpose they were constructed.⁶¹ Among these structures is another possible *heiau*, set against the southern slope of the valley, just west of the two previously mentioned sites. This structure differs from the others in that it is formed by a series of stone-faced terraces leading up to a low walled enclosure.⁶² The size of this site, as well as its

style of construction (the enclosure's thick core-filled walls lack any obvious entrance), strongly suggest that it may once have served as a religious structure. Regretfully, no oral traditions related to the origin or use of this site appear to have survived.⁶³

Across the valley, along the lower slopes of the northern ridge and well back from the present beach, lies a relic sand dune. The color of the sand which composes this dune (a clear white as opposed to the muddied brown of the present beach sand) suggests that it was formed at some time in the prehistoric period, long before the erosion of the island's upper slopes washed tons of topsoil down into the Hakioawa watershed. In 1913, while collecting fossil land snails from the face of this dune, Charles M. Cooke, malacologist with the Bishop Museum expedition, came upon human bones eroding out of the sand. He brought them to the attention of J.F.G. Stokes. An entry in Stokes' field notebook for March 4th records that;

At this bay [Hakioawa] we found, in what I think was a burial ground, two skeletons, of a woman and child. Cooke had seen them when collecting shells. In the woman's skull were a number of the smaller bones, also the shank of a pearl fishhook & the remains of a bone one much decayed. It being late, we only examined the end of the wall in which they were buried.⁶⁴

Returning to the spot a few days later, Stokes writes; "Investigated the place Cooke told us of & found part of a bracelet of boar's tusks and of a necklace of shell beads with traces of two more skeletons. On the south side of the north gulch was a skeleton bundled up & laid on its back."⁶⁵ In all, Stokes found a total of seven human burials (five children and two adult females) eroding out of the sand dune. These were removed from the island, and are now housed at the Bernice Pauahi Bishop Museum in Honolulu.

Stokes included with his notes a rough field sketch of the structure near which the majority of the skeletons were

uncovered.⁶⁶ Examining Stokes' sketch, as well as his photographs of the site, it appears that this structure was a stone-faced platform resting atop the sloping dune. At least one of the burials seems to have been discovered lying against the downslope edge of this platform.

Since Stokes' visit in 1913, both the site and the surrounding dune have changed considerably. Extensive erosion has lowered the surface of the dune, revealing additional structures which were only barely visible in Stokes' photographs. The platform itself⁶⁷ has now become a terrace, with much of its interior fill eroded away and its front wall collapsed. An additional terrace, extending out below the platform, has been revealed and has itself been heavily eroded.⁶⁸ It appears that, at the time Stokes visited the site, the shifting dune had partially buried structures which, in the prehistoric period, had been constructed atop it. Since then, the subsequent erosion of the dune has not only exposed, but severely destabilized these structures.

When the site was resurveyed in the 1970s, a number of scattered human bones were found washing out of the dune downslope of the lower terrace. Subsequent rescue excavations, undertaken as part of the survey, exposed eight discrete human burials. Each of these burials were carefully excavated, removed and reinterred in a nearby, less endangered, section of the dune.⁶⁹

Of the eight skeletons found, one was so badly decomposed that it was impossible to determine either its age or sex, five appear to have been adult individuals of indeterminate sex, one was a young female between eighteen and twenty five years of age and one was a child less than six years old.⁷⁰ All of these burials were discovered either within the interior of the lower terrace (where Stokes had found at least one of his skeletons), or within a small stone enclosure set against the terrace's downslope face.

The skeleton for which no age or sex could be determined was found lying within a rectangular stone cist with the skeleton of a small mammal, probably a dog, resting on its abdomen. It also had four discoidal stones (possibly *ulu maika*)⁷¹ placed next to its pelvis. A complete, unworked cowrie shell (*Cypraea maculifera*) and a water-worn basalt hammerstone were also discovered with the body.

One of the other individuals was also found buried with the skeleton of a small mammal, again possibly a dog. In ancient Hawai'i, dogs were often kept as pets, particularly by women.⁷² Historical sources indicate that these pets were occasionally buried alongside their owners.⁷³

The presence within this ancient burial area of the bones of both women and young children, lend additional support to the argument that Hakioawa was the site of a permanent settlement, rather than simply a seasonal fishing camp. The absence of any identified male skeletons, either among the burials removed by Stokes or among those discovered during the later survey, might suggest that this burial ground was reserved exclusively for women and their young children. Nowhere, however, in the traditional literature is there any mention of the existence of such sexually segregated burial sites.

The discovery of so many burials clustered so closely together is not unusual in Hawai'i, particularly in areas of sand dune development. Because it is easier to dig in sand than in earth, dunes were commonly chosen as burial grounds.⁷⁴ What is somewhat unusual, however, is the presence of so many burials within or adjacent to a stone structure. The ancient Hawaiians do not appear to have had marked cemeteries.⁷⁵ The only description we possess of a distinct burial enclosure was provided by the English missionary William Ellis who passed one on his travels around the island of Hawai'i in 1823.

Sometimes the inhabitants of a village deposited their dead in one large cavern, but in general each

family had a distinct sepulchral cave. Their artificial graves were either simple pits dug in the earth, or large enclosures. One of the latter, which we saw at Keahou⁷⁶, was a space surrounded with high stone walls, appearing much like an ancient heiau or temple. We proposed to several natives of the village to accompany us on a visit to it, and give us an outline of its history; but they appeared startled at the thought, said it was a wahi ino (place evil), filled with dead bodies, and objected so strongly to our approaching it, that we deemed it inexpedient to make our intended visit.⁷⁷

The description given by Ellis of "a space surrounded with high stone walls, appearing much like an ancient heiau or temple", does not match well with the stone remains resting atop the Hakioawa dune. The structures associated with the Hakioawa burials also do not appear to represent the components of a simple habitation site.⁷⁸ The now collapsed platform and its adjacent terrace seem to most strongly resemble elements of a shrine. If this was indeed the case, and these structures were once used for traditional religious services, then the temple of which they formed a part was most probably reserved exclusively for women's worship.

The dictates of the the *kapu* system, the set of cultural laws which governed life in precontact Hawai'i, placed great restrictions on the activities of women. They were not allowed to eat in the presence of men⁷⁹, certain foods (such as pork and bananas) were forbidden to them⁸⁰ and they were denied access to most religious sites. It appears, from the few accounts which have come down to us, that women were allowed to worship only at temples build specifically for that purpose. These temples were dedicated to female deities such as Haumea, the female progenitor of the Hawaiian race and Pele, the fire goddess.⁸¹

If women were forbidden to enter a temple dedicated to Lono, Ku or one of the other male gods when they were alive, it seems unlikely that they would have been allowed to be buried within its confines after death. The presence of

female skeletons within the lower terrace of the structure at Hakioawa suggests that if it did serve as a religious site, it most probably functioned as a women's *heiau*.

At least one oral tradition appears to confirm this, suggesting that the structure may have served as a *hale o Papa*, a temple dedicated to Papa, the earth-mother goddess of ancient Hawai'i.⁸² Harriet Ne of Kalama'ula, Moloka'i, who spent a week on Kaho'olawe back in 1932 with a *kama'aina* of the island, has stated that this particular site functioned as a *hale o Papa*, though she did not give any details as to its use.⁸³

Another source for this tradition appears to be Inez Ashdown, the daughter of Angus MacPhee, a rancher who leased and ran cattle on Kaho'olawe from 1917 to 1941. Ashdown spent a great deal of her youth on Kaho'olawe and subsequently recorded a number of traditions related to the island. Her sources for these oral traditions ranged from the *paniolo*⁸⁴ who worked on her father's ranch, to friends and informants on the island of Maui, where she lived for most of her adult life. Regretfully, Ashdown does not always identify these sources, and while some of the traditions she records correspond well with information we have from other reliable sources, some do not.⁸⁵

In a letter written in 1967 to E.H. Bryan, then geographer at the Bishop Museum, Ashdown stated that; "Pilgrimages, prayers, offerings of beautiful flower leis, all were a part of the ceremonies held in the Heiau area of Hakioawa where one section of the heiau is the Hale o Haumea Papa."⁸⁶ Nine years later, when describing the valley of Hakioawa in a listing of "Kahoolawe Place Names", Ashdown mentioned that; "Here were the heiau, the house sites, Hale o Papa, and in one sense, the name means where the awa was prepared and offered by the Kahuna."⁸⁷

Ashdown gives no source for her statement that a *hale o Papa* formerly existed at Hakioawa⁸⁸, nor does she specify where in the valley that temple was located. Although it is

possible that the structure constructed atop the Hakioawa dune once served as a religious site in some way linked to the worship of a female deity, it is questionable whether it acted as a true *hale o Papa*.

According to Hawaiian historian Samuel Kamakau, writing in the late 1800s, the *hale o Papa*, or "heiau of the female deities"⁸⁹, existed as a component of the larger *luakini heiau* complex. The *luakini* were state temples, built and maintained by the *ali'i nui* (high chiefs).⁹⁰ Traditionally, the *hale o Papa* stood to the left of the main temple on its own special platform. It was within the *hale o Papa* that the female *ali'i nui* and her attendants remained during ceremonies held at the *luakini*.⁹¹ These ceremonies usually extended over several days, and at their close, certain purification rites were performed within the *hale o Papa* itself. These involved both men and women, though apparently only members of the chiefly and priestly classes took part.⁹² It is not altogether clear what other rites and ceremonies were performed at the *hale o Papa*.

If, as Kamakau suggests, *hale o Papa* were traditionally constructed immediately adjacent to *luakini heiau*, and their use was restricted to high ranking female *ali'i*, then it seems unlikely that the structure situated atop the sand dune in Hakioawa can be called a *hale o Papa*. None of the other Hakioawa heiau are of the size or shape which might suggest they served as *luakini*, and it is difficult to imagine that so important a state temple, one which could only be constructed at the command of the *ali'i nui*, would have been build so far from the precincts of power. If, however, the term *hale o Papa* was also used in ancient times to refer to women's temples built for the worship of lower ranking *ali'i* and commoners (*maka'ainaina*), then it is possible that the Hakioawa site may have been a *hale o Papa*.

The problem is that we know so little about traditional Hawaiian religious structures, particularly about those at

which women worshipped. Practically all of the early historic accounts we possess describing Hawaiian religion were written by men. Our primary native sources for information on indigenous religion; Malo, Kamakau and Kepelino, were also male. The Hawaiian traditional literature is lacking in female voices which might speak to us of the rites and rituals which governed a woman's life and accompanied activities such as child birth.

The separation of the sexes dictated under the *kapu* system insured that those native writers whose works we now rely upon as our windows on traditional Hawaiian culture remained ignorant of the ceremonies surrounding the worship of female deities. Just as the women of ancient Hawaii were forbidden to set foot in a men's *heiau*; so to these male writers would have been unlikely to have seen the interior of a female religious site, or witnessed any of the ceremonies conducted there. This absence of a female perspective on traditional Hawaiian religious life has left a tremendous gap in our knowledge and understanding of the islands' sacred sites.

As has been said before, those few descriptions which we do possess of *hale o Papa* tend to suggest that these sites were always constructed adjacent to large *luakini heiau*, and that they were linked to the ceremonies carried out at these state temples. Since none of the other religious structures situated within the valley of Hakioawa appear large enough to have served as a *luakini*, and since it is unlikely that a temple of that kind would have been located within such a remote fishing community, there seems little evidence to support the contention that the site resting atop the Hakioawa dune was a *hale o Papa*. There are, however, strong indications that this site may have been in some way linked to the life of the valley's female population.

In her writings, Inez Ashdown has provided us with one further tradition which she also links to the bay of Hakioawa, though once again she gives us no indication as to

the source from which she learned this tale. In an unpublished article found among her private papers and entitled "Historic Sites of the Lonely Isle", Ashdown wrote;

"Haki-o-awa has many structures and, as its name implies, here in some long-age time the priests and people dwelt in that valley (awa'awa) and prepared the 'awa for offering to the gods, for medicine, and to drink⁹³....'Awa also means bitterness, or a misfortune, a tragic ordeal,...In this case it supposedly refers to a mother whose life was made miserable by a cruel Eel-man, a Puhi-paka or Foreigner) who takes undue and cruel advantage of another's physical weakness or lack of strength. Ho'awa was the woman. When the fog or the sea-mist covers the area we say she is weeping there for her unfortunate child which was born premature there in the Bitter Valley. Puhi came with his companions, brought misery to the villagers and killed them, and left the woman for dead. She did not die, but when the infant was born dead she evidently went insane and leapt off the cliff with the little one in her arms."⁹⁴

The remains of prehistoric house platforms, fishing shrines and stone walled temples give mute testimony to Hakioawa's former role as one of the most populous communities on Kaho'olawe. What few traditions we possess concerning the valley suggest that it may also have served as an important religious center for the island.⁹⁵ In the end, however, we know woefully little about the indigenous history of the valley.

The valley's first inhabitants were probably fishermen from neighboring Maui or Lana'i who camped on Kaho'olawe while exploiting its rich offshore waters. Attracted by the emptiness of the land, these fishermen may eventually have brought their families over and established permanent residence on the island.

The initial settlement of Hakioawa probably took place some time relatively early in the prehistory of Kaho'olawe. At present our earliest dates, taken from samples of volcanic glass excavated during the 1976-80 survey, fall around the 14th century A.D..⁹⁶ Since these excavations were limited to

only a few scattered test pits, it seems likely that, with further sampling, earlier dates may be forthcoming.

The majority of the dates recovered from the valley were obtained from volcanic glass collected off the surface. These cluster between the mid 1500s and the early 1700s. This may be thought of (if these dates are indeed correct) as being the period of greatest settlement in the valley. Hakioawa, at that time, appears to have been the largest community on the island.⁹⁷ Yet, we know from historic accounts that by 1850 the valley of Hakioawa was deserted.⁹⁸

Precisely when the valley of Hakioawa was abandoned by its indigenous population remains uncertain. Based on the volcanic glass dates obtained during the 1976-80 survey, archaeologist Robert Hommon has suggested that this population decline took place in the early 1700s, and that by about 1750 only seven individuals remained in the valley.⁹⁹ In contrast, the revised method of hydration rind calibration employed by the archaeologists who conducted field work on Kaho'olawe between 1982 and 1983¹⁰⁰, would place the valley's abandonment much closer to the historic period.¹⁰¹

If Hommon's dates are correct, and the valley of Hakioawa was almost devoid of human habitation by the middle of the 18th century, then the causes of its abandonment remain uncertain. Hommon attributes the decline in Hakioawa's population to an increased degradation of the natural environment, brought about by the intensive farming of the island's upland slopes. According to Hommon, the removal of the dryland forest which once covered much of the island's interior, and its replacement by agricultural fields opened the way for an environmental disaster. The farming methods employed by the island's native inhabitants caused erosion of the upland soils. With time, increasing amounts of sediment washed downslope into the Hakioawa watershed, silting up the valley floor and clouding the offshore waters. The resulting degradation of the bay's marine environment, so

critical to the survival of its inhabitants, resulted in a mass emigration of its resident population.¹⁰²

Evidence uncovered during 1982-83 archaeological work on the island tends to refute Hommon's argument, and to suggest that the bulk of the island's erosion took place following the introduction of hooved animals in the early historic period.¹⁰³ Without Hommon's environmental disaster model to explain the valley's mid-1700s abandonment, we are forced to assume that some, as of yet unknown, social or political upheaval drove Hakioawa's inhabitants from their ancestral home.

If, however, the valley's depopulation occurred towards the end of the 18th century, then the roots of its abandonment are much more easily identified. By the late 1700s, the combination of interisland warfare, introduced diseases and the lure of newly emerging port towns had greatly reduced the populations of neighboring Lana'i and Moloka'i. Evidence from historical accounts suggests that these same forces were at work on Kaho'olawe.¹⁰⁴

From about the year 1759, when Kalaniopu'u, the *ali'i nui* of the island of Hawai'i, launched an invasion fleet across the Alenuihaha channel, until 1795 when his nephew Kamehameha united most of the islands into a single kingdom, the windward islands of the Hawaiian chain were embroiled in almost constant warfare between the chiefly families of Hawai'i and Maui.¹⁰⁵ Though of no great strategic significance herself, Kaho'olawe lay near enough to the battlezone between these two warring factions to have felt the affects of the conflict. In at least one instance the island was the victim of a raid carried out by Kalanipou'u's forces. This attack is mentioned briefly in the writings of Abraham Fornander, whose book, An Account of the Polynesian Race, chronicles this early period of Hawaiian history.

The defeat and humiliation of *Kalaniopuu* in this last campaign rankled deep in his mind, and hardly a year had elapsed after his return to Hawaii before we find him afloat again with a large force,

carrying war and desolation into *Kahekili's* [the *ali'i nui* of Maui] dominions. His first descent on Maui was at Mokolau, in the Kaupo district, where the inhabitants were plundered and ill-treated. On hearing of this new invasion, *Kahekili* sent troops to Kaupo, and apparently cleared the country of the invaders, for it is said that *Kalaniopuu* left Kaupo, and made his next descent on the island of Kahoolawe, and, not finding much booty there, steered for Lahaina, whither *Kahekili* and the Oahu auxiliaries hastened to oppose him.¹⁰⁶

From this accounts, it appears that *Kalaniopu'u's* troops stopped to plunder Kaho'olawe on their journey from Kaupo to Lahaina. If they took the most direct route, through the Alalakeiki channel, stopping at Kaho'olawe on their way, the most logical point of attack would have been among the settlements of the island's northeast coast, the largest of which was Hakioawa.

A raid such as *Kalanipou'u's* would not necessarily have decimated the settlement. Spotters on the eastern cliffs could easily have alerted the community to the approach of so large a war fleet (whose ravages at Kaupo were probably already known) in time for the inhabitants to seek safety in the interior. The raid would, however, have destroyed homes and greatly disrupted the life of the community, possibly convincing many of its inhabitants to seek refuge further from the hostilities.

Far more devastating than any brief raid was the indirect cost of *Kalaniopu'u's* (and later *Kamehameha's*) wars. During this time, the resources of Kaho'olawe was often called into the service to feed and support one or the other of these warring factions. This heavy drain on the islands natural and human resources probably contributed a great deal to its depopulation. In the mid 1790s, during a military campaign to conquer Oahu, *Kamehameha* sailed his *Peleleu* fleet around the southern coast of Maui. As the Hawaiian historian *Samuel Kamakau* describes it; "The party then went on to Lahaina where they remained about a year feeding and clothing

themselves with the wealth of Maui, Molokai, Lanai, and Kahoolawe, and worshipping the gods."¹⁰⁷ The presence of so large an army, billeted just across the Kealaikahiki channel, would have placed a great strain on Kaho'olawe's already much depleted resources.

The results of these depredations were seen and described by British navigator Capt. George Vancouver, who sailed past the Kaho'olawe on his way to Lahaina in March of 1793. He remarked in his narrative of the voyage that;

The war, and the vast supplies that the half famished trading vessels had recently drawn from some of these islands, had left a very scanty portion for the remaining inhabitants of Mowee [Maui], and the other islands under the authority of Titeeree [Kahekili] and Taio [Kaeo; Kaeokulani, Kahekili's brother and the ruling chief of Kaua'i, who shared control of Maui with Kahekili at this time]. This information was communicated to me by several respectable chiefs at Owhyhee [Hawai'i], and was now fully confirmed by Tomohomoho [Kamohomoho, a Maui chief], particularly as to Mowee [Maui] and Morotoi [Moloka'i]; he stated these as having been the principal feats of Tamaahmaah's [Kamehameha] wars, and that Rannai [Lana'i] and Tohowrowa [Kaho'olawe], which had formerly been considered as fruitful and populous islands, were nearly over-run with weeds, and exhausted of their inhabitants.¹⁰⁸

The drain on Kaho'olawe's resources did not end with the close of Kamehameha's wars of conquest. Kamakau reports that in the early 1810s, during a tour which Kamehameha and his retinue made of the windward islands of Molokai and Maui; "He [Kamehameha] then went on to Lahaina and all remained there feasting and gathering wealth. Ka-hikili Ke'e-au-moku imposed a tax on Maui, Molokai, Lanai, and Kahoolawe, and food piled up so that chiefs and people ate until they could eat no more."¹⁰⁹

But the ravages of war and the demands of a newly crowned king were not the only factors contributing to the decline of Kaho'olawe's native population. Like the horsemen of the apocalypse, war and famine were accompanied by

disease. In this case the diseases were western ones, introduced to the islands by the explorers, whalers and traders whose ships now crowded the nearby port of Lahaina. Against these new and foreign diseases the native Hawaiian population possessed no natural immunities. Epidemics of measles, small pox and venereal disease swept the islands, wiping out almost two-thirds of the native population between the years 1828 and 1878.¹¹⁰ Despite its remote location, Kaho'olawe did not escape the devastation. Although we possess no first hand accounts of the toll which introduced diseases took upon the inhabitants of Kaho'olawe, it is not difficult to imagine the effect such epidemics would have had on the already fragile population of this tiny island.

A final factor in the depopulation of Kaho'olawe was emigration. With the arrival in the islands of western trading vessels, the traditional Hawaiian economy, based as it was upon subsistence agriculture and the production of a limited number of "luxury items" available almost exclusively to the chiefly class, underwent a immense and rapid transformation. Suddenly a host of new and novel trade goods were available to those who could afford them. Hawaiians, both *ali'i* and commoners alike, began to adopt western modes of dress, and to covet such introduced items as iron and tobacco.

This economic transformation brought with it a profound change in the traditional pattern of Hawaiian settlement. In order to be near the sources of these foreign trade items, many islanders abandoned their farms and fields and gravitated to the emerging port towns. This movement was accelerated by the introduction of Christianity, as both the converted and the curious flocked to the mission stations to hear the teachings of the newly arrived missionaries and learn the mysteries of reading and writing.¹¹¹

One of the most bustling of these new population centers was Lahaina, which served not only a major port of call for whalers and traders, but also supported one of the islands'

earliest mission stations. Lahaina acted, for a time, as the capital of the kingdom of Hawai'i, and was the residence of both the island's governor and a large number of Maui chiefs. It is probable that at least some of Kaho'olawe's remaining inhabitants succumbed to the lure of bright lights and moved to Lahaina.¹¹²

Whalers and missionaries, chiefs and commoners, all the inhabitants of the new port needed to be fed, and many Hawaiians who did not migrate to the town itself, moved near enough to provide services for Lahaina's growing population. The pattern of settlement on Kaho'olawe appears to have reflected this shift. By the late 1850s, what remained of the island's population appears to have been clustered in three valley settlements situated on the island's northern coast, just across the Kealaikahiki channel from Lahaina.¹¹³

A government census conducted in the year 1866 found eighteen individuals still living on Kaho'olawe. Sixteen of these were Hawaiians or part Hawaiians, seven of whom had been born on the island. Most of those surveyed appear to have been employed by the sheep ranch which was then in operation on Kaho'olawe.¹¹⁴ All of the individuals surveyed seem to have lived within the same community, possibly at Ahupu bay, where archaeological evidence suggests that the original ranch compound may once have stood. Since the census was conducted over the space of a single night, there is a good possibility that some of the island's other, smaller settlements were missed.¹¹⁵

With time, Kaho'olawe's population continued to dwindle until, by 1910, when the island was declared a Forest Reserve, the Maui News could announce that; "The island will be closed to homesteaders."¹¹⁶

The combination of archaeological and documentary evidence unearthed and presented within these pages reveals that Jacques Arago was wrong. Even at the moment the young French artist sailed past Kaho'olawe, believing that "life there is impossible", the island's native residents were

going about their daily activities as they and their ancestors had for centuries; women were pounding out *kapa* cloth, men were mending their fishing nets and young children were playing in the surf.

The rugged nature of Kaho'olawe's natural environment led Arago to believe that the island was uninhabitable. The appearance of that same environment, scarred now by years of neglect and abuse, has caused many of us to share his belief, doubting that anyone could ever have lived in so dry and desolate a land. Then, as now, we strangers to the island have underestimate the resources and capabilities of the ancient Hawaiians who drew life from this "island of rock"

Notes

1.) This description comes from a tradesman whom Arago met in Rio de Janaro. It can be found in one the letters which Arago sent home to France during his travels. These letters form the basis of Arago's book Narrative of a Voyage Round the World in the Uranie and Physicienne Corvettes Commanded by Captain Freycinet. (Arago 1823:115)

2.) Freycinet's visit to these islands came at a critical juncture in Hawaiian history. Kamehameha I, the monarch who, through military skill and political astuteness, had succeeded in uniting the Hawaiian chain, had died in May of 1819 at Kailua, Hawai'i, leaving the throne of his newly formed kingdom to his son, Liholiho. Six months later, in November of that same year, the newly crowned monarch sat down to eat with the women of his household, thus symbolically overturning the *kapu* system, a set of laws and customs which for centuries had regulated almost every aspects of traditional Hawaiian life. The abolition of the *kapu* was accompanied by the abandonment of the state religion, the casting down of the old gods and the wholesale destruction of temples and images. The narratives of Freycinet's expedition are the last detailed accounts we possess of a Hawai'i still bound together by its ancient beliefs. The following year missionaries from New England arrived in the islands, bringing with them the word of a new god.

3.) Freycinet 1978:47.

4.) Arago 1840:229-30. This section of Arago's narrative has been translated from the original French by Carol Silva and the translation can be found in her 1983 compilation of historical documents related to Kaho'olawe. (Silva 1983:17) In a slightly earlier account of the expedition, Arago provided a far less gothic description of the island. "We coasted along Taouraé, a barren island, flat, and moderately elevated, on which was not the slightest appearance of vegetation. The soil is reddish, and furrowed at intervals. The island is desert and uninhabited; some breakers extend beyond its western point. On doubling this, we discovered the small rock of Morikini, from whose summit rises a lofty column of smoke, which would have induced us to suspect there was a volcano under it; the pilots on boards, assured us, however, that this was not the case." (Arago 1823:II:118) Arago's disparaging comments concerning Kaho'olawe must be considered in the light of his descriptions of other parts of the Hawaiian chain. He speaks of the west Maui mountains in the words; "The base of this mountain, which somewhat resembles our Canigou, is dry and barren, without the smallest trace of that verdure which crowns its summit". (Arago 1823:II:118) True, the shores and lower

slopes of the west Maui mountains are drier than their rain soaked summits, but they are certainly now without "the smallest trace" of verdure.

5.) The immense volcanic cone which forms the highest peak of the neighboring island of Maui.

6.) The following chart lists the names and dates of the various early voyagers who sailed past Kaho'olawe prior to the arrival of the missionaries in 1820. It gives the route of their passage and a condensed version of the comments (if any) which they made concerning the island. A more complete version of their observations is provided in Appendix A. Those navigators who stated that Kaho'olawe (as far as they could determine) was uninhabited, have been marked with an asterisk (*). A quick glance down the list reveals that, of the thirteen accounts we possess, three state (or suggest) that the island is uninhabited, four provide either no description of Kaho'olawe or mention (as does Beresford) that "I cannot say whether they are inhabited", two saw fires on the island, and four make direct mention of the island's native inhabitants.

<u>Date</u>	<u>Observer</u>	<u>Route</u>	<u>Description</u>
1779	King	Around west end	"neither houses, trees, nor any cultivation that we saw."
1786	La Perouse	Between Maui and Molokini	No description
1787	Beresford	Unknown	"I cannot say whether they are inhabited"
1791	Quimper	Between Maui and Molokini	"Taurabe [Kaho'olawe], Ranay [Lana'i] and Morrtotay [Moloka'i] have scarcely sufficient fruits to maintain their inhabitants."
1791	Ingraham	North, east and south coasts	No description
1792	Chatham	South coast & around west end	Saw fires on the island
1793	Vancouver	Between Molokini and Kaho'olawe	"Rannai [Lana'i] and Tohowrowa [Kaho'olawe], which had formerly been considered as fruitful and populous islands, were nearly over-run with weeds, and exhausted of their inhabitants."
1804	Shaler	Unknown	Inhabited
1811	Franchere	Uncertain	"well populated."
1815	von Kotzebue	Around west end?	"we saw a number of fires along the shore."
1818*	Golovnin	Around west end?	"The island of Tahoorowa [Kaho'olawe] is uninhabited because of its unproductive rocky soil"
1819	Freycinet	South coast & around west end	No mention of inhabitants
1819*	Arago	South coast & around west end	"The island is desert and uninhabited."

Matthew Spriggs, in his paper "Preceded by Forest; Changing Interpretations of Landscape Change on Kaho'olawe", also provides a detailed examination of these early voyaging accounts and questions the assumptions drawn from them that environmental degradation had begun on Kaho'olawe prior to the introduction of goats to the island. (Spriggs 1991:72-74)

7.) Though placid in the hours immediately after dawn, the waters of this channel are frequently torn to white caps by midmorning winds and swells. Both Captain Joseph Ingraham of the whaling ship *Hope*, which passed through the channel in 1791 (Ingraham 1971:___), and Thomas Manby who sailed through the straits with Captain George Vancouver in 1793 (Manby 1791-3:141), speak of "very violent gusts of Wind from all points of the Compafs". (Manby 1791-3:141) In his sailing directions to Lahaina, Captain Charles Wilkes stated that; "If a vessel wishes to anchor in Lahaina Roads, coming from eastward, she ought, after leaving Hawaii, to steer so as to clear the west end of Kahoolawe. There is a passage to the north of Kahoolawe, between it and Maui, through which a vessel may sail. The islet of Molokini lies in the middle, between the two, and is the only danger, but I cannot recommend this route to any vessel. The land of both islands is high, and a vessel may be becalmed in passing through, and experience much detention from baffling airs from all points of the compass, and not infrequently be struck by heavy squalls, which from their suddenness as well as violence, would be very apt to cause the loss of light-sails and spars." (Wilkes 1861:293)

8.) One of the earliest descriptions we have of Kaho'olawe's western end is that given by Captain Charles Clerke who commanded the *H.M.S. Resolution* following the death of Captain James Cook's at Kealakekua. "We now stood in for the land, at 8 bore away and ran along the South side of Tah'hoo'row'a which makes in high barren Clifs; the S.W. point of it is moderately low but very barren, we could see nothing at all about it but a few shrub bushes." (Clerke 1779:unpaged) When E.H. Bryan conducted a botanical survey of the island in 1931 he noted on his vegetation map that Kaho'olawe's western end was carpeted in *pili* grass. (Bryan's map is presently held at the Archives of the Bishop Museum [G4382-.K3 K1-1931?-B6]) This open landscape of *pili* and occasional low shrubs had probably changed little since Clerke's day.

9.) Accounts of the island written in the late 19th century speak of native settlements strung along the island's northern coast at what appear to have been the bays of Honokoa, Kuheia and Ahupu. (letter from Paul Nahaolelua and Ioane Richardson to Kamehameha III held in the Hawaii State Archives, Interior Department Land File: December 7, 1857:page 3 of the original, page 2 of translation (Appendix Q), letter from William Allem to R.C. Wyllie in the Hawaii State Archives, R.C. Wyllie Private Collection: May 31, 1858:1-2 (Appendix R), Ka Lahui Hawaii December 30, 1875:4:c.2 (Appendix U))

10.) These quotes are taken from the accounts of Vasili Golovnin (Golovnin 1979:218), Gabriel Franchere (Franchere 1969:61-2), Jacques Arago (Arago 1823:II:118) and John Law who sailed with Captain Cook (Law 1779:unpaged).

11.) McAllister was not the first archaeologist to visit the island of Kaho'olawe. Eighteen years before, in 1913, J.F.G. Stokes had been sent by the Bishop Museum to conduct a survey of the island's ancient sites. Stokes' first visit to the island was as a member of a Museum sponsored scientific expedition which included Charles N. Forbes, the Museum's botanist, C.M. Cooke, a malacologist from the Museum, malacologist H.S. Pilsbry from the Philadelphia Academy of Sciences, rancher Eben Low, Maikai the ranch foreman and Henry P. Judd of Maui. On this trip, Stokes traveled extensively over the island locating and recording the various stone remains which had survived from the island's ancient occupation. During this initial survey he discovered a shrine at the foot of the sea cliffs in Kamohio bay. The location of this shrine, under the shelter of the overhanging cliffs, had served to protect it from the elements. When Stokes stumbled onto it, he found the shrine very much as it had been left by the last Hawaiians to worship there. Its stone-edged terraces were still carpeted in dried fern and pili grass, offerings bundles lay before upright stones wrapped in kapa, and a carved wooden image, itself almost completely bandaged in kapa, rested atop one of the upper terraces.

Only weeks after his first visit, Stokes returned to Kaho'olawe with two assistants (a Mr. Perry from the Museum staff and Henry Jaeger) to conduct excavations at the Kamohio shrine. The results of his discoveries are dealt with in detail in Chapter VI. Stokes never published his findings. Two small pocket notebooks, the only written record of his visits to Kaho'olawe, have rested for years, along with copies of his site maps and photographs, in the library of the Bishop Museum (now the Bishop Museum Archives). As part of this project, Stokes handwritten notes have been transcribed and are presented, along with copies of the rough sketches taken from his fieldbooks, in Appendix W of this report.

McAllister's publication, Archaeology of Kaho'olawe, is based, as he states, "upon notes written by Mr. J.F.G. Stokes in 1913, upon a detailed study of the Kaho'olawe materials in Bernice P. Bishop Museum, and upon a week's field survey in February, 1931, in company with Mr. E.H. Bryan, Jr." (McAllister 1933:3)

12.) McAllister 1933:59. McAllister himself admits that; "The house foundations and ruins of religious structures are as permanent as the remains on any of the Hawaiian islands", but adds that "environmental conditions were such that it seems unlikely that people could have inhabited the island

for an indefinite period." (McAllister 1933:59) To McAllister, "It seems more probable that Kahoolawe served as a base for fishing peoples who, attracted by the plentiful supply of fish in the waters about the island, established semipermanent huts, numerous fishing shrines (*ko'a*), and two heiaus for propitiating the fish deities and assuring good catches." (McAllister 1933:58)

13.) The following is a list of the *ulu maika* so far collected from the island of Kahoolawe.

Ulu maika held in the Bishop Museum:

<u>Artifact Number</u>	<u>Date</u>	<u>Collector</u>	<u>Location</u>
B.00315			Kahoolawe
B.00316			Kahoolawe
C.03575			Kahoolawe
C.03576			Kahoolawe
C.09158			Kahoolawe
C.09160			Kahoolawe
C.09386			Kahoolawe
C.09387			Kahoolawe

-The Museum catalogue lists four more "game stones" from Kahoolawe, but these are described as "rough disks" rather than as *ulu maika*.

Ulu maika collected during the 1976-80 survey and presently held at the Maui Historical Society:

<u>Artifact Number</u>	<u>Description</u>	<u>Location</u>
20174A-1.42	<i>Ulu Maika</i> (in two pieces)	Site 174, on cliffs above Kanapou bay, pieces found about 20 m. apart, surface.
20113-13.460	coral/sandstone <i>ulu maika</i>	Site 113, along the coast north of Ahupu bay, surface.
20 -13.399	sandstone <i>ulu maika</i> (?) fragment	A16 [target or airfield?] vicinity, possibly uplands north of Kamohio bay, surface.
20149C-2.26	vesicular basalt <i>ulu maika</i>	Site 149, on the southeastern slopes of Pu'u o Moaulanui, surface.
20150-13.423	<i>ulu maika</i>	Near the crater of Lua Moaula, west of site 104, surface.
20150-13.425	sandstone (?) <i>ulu maika</i> fragment	Near the crater of Lua Moaula, west of site 104, surface.
20150-13.440	<i>ulu maika</i> preform (?)	Near the crater of Lua Moaula, west of site 104, surface.
20153-2.24	broken <i>ulu maika</i>	Site 153, south slope of Pu'u o Moaulanui, 325-deg. E of N from main pt. of 153-34m to NW of same pt.
20193F-7.22	HH #22 <i>ulu maika</i>	Site 193, in uplands west of Pu'u o Moaulanui, 10m west of Site 193F, surface.
20193F-7.28	HH #28 <i>ulu maika</i>	Site 193, in uplands west of Pu'u o Moaulanui, 16m E of Site 193F, surface.
20195E-7.38	HH #38 <i>ulu maika</i>	Site 195, western slopes of Pu'u o Moaulanui, surface.
20195E-7.40	HH #40 <i>ulu maika</i>	Site 195, western slopes of Pu'u o Moaulanui, 6m N of Site 195E, surface.
20195E-7.41	HH #41 <i>ulu maika</i>	Site 195, western slopes of Pu'u o Moaulanui, 12m W of Site 195E, surface.

20195CO-7.51	HH #802 <i>ulu maika</i>	Site 195, western slopes of Pu'u o Moaulanui, surface.
20195F-12.26	possible coral <i>ulu maika</i> stone	Site 195, western slopes of Pu'u o Moaulanui, mid site.
20195J-12.41	possible <i>ulu maika</i> or slingstone	Site 195, western slopes of Pu'u o Moaulanui, mid site.

Inez Ashdown, whose father owned and managed a cattle ranch on Kaho'olawe from 1917 to 1941, and who spend a goodly part of her youth on the island, mentions that; "There is a flat, still further mauka [than Pu'u Moiwil], where we found the "bowling stones" called *ulu-maika*. Probably the kahua or "alleyway" saw many a game played by people there. We set up our own "goal sticks" and used to play at times, when work was slack." (from her unpublished manuscript "Shrines of Kaho'olawe"; "page 12..story #12..Kaho'olawe", a copy of which is held among the Inez Ashdown Papers on file in the Maui Historical Society). It is possible that Ashdown's "alleyway" was somewhere near Sites 193 and 195.

14.) In addition to its permanent resident population, Kaho'olawe was also home to a number of 'ohana (extended families) who lived on the island for only part of the year. The presence of this transient population is well documented during the historic period, beginning in 1825 when in a letter to his superiors in Boston, Reverend William Richards, missionary at Lahaina, wrote: "Tahoorawe too, communicates with no other island but Maui though, there are few inhabitants there, and those mostly fishermen who are not permanent residents." (Missionary Herald June 1826:22:174-175)

In 1858, William F. Allen, following an inspection tour of Kaho'olawe, commented that;

"I found on the Island about fifty Natives men, women and children, the men engaged in fishing which is very good there most of the year, as there are several kind which frequent the sea about the Island. These natives do not live here all the year, but are here most of the time except during the rainy season, their food (Poi) they bring from Maui after disposing of their Fish in Lahaina. (from a letter dated May 31st, 1858 presently held in the R.C. Wyllie Private Collection at the Hawaii State Archives (Appendix R)).

This seasonal swelling of the island's population, noted by Allen, appears to be reflected in the early population counts for the island (see Appendix D), and probably dates well back into the prehistoric period.

15.) During his week-long excursion on Kaho'olawe, McAllister identified a total of 50 archaeological sites. In his judgement; "There are undoubtedly some isolated sites which were not seen, but as the most habitable parts of the island were examined, it is probable that the material which was missed will not prove to be significant." (McAllister 1933:3-4)

16.) A listing of the various archaeological sites and features located during the 1976-80 survey can be found in Table 1, page 44A of the Multiple Resource Nomination Form submitted as part of the island's nomination to the National Register of Historic Places. (Hommon 1980) This report provides an overview of the archaeological discoveries made during the survey. The report gives the following definitions for archaeological "sites" and archaeological "features", as they were identified by the survey teams. "An archaeological site is a location with evidence of human activity in the past and consists of either a single feature or a complex of features. An archaeological feature is a spatially limited cluster of evidence of past human activities whose boundaries are determined by the extent of the evidence and/or by the boundaries of the artificial structure or natural land-form that contains it." (Hommon 1980:7:37)

In simple terms, what this means is that, for the purposes of the survey, any physical evidence of past human activity, such as a house platform, a scatter of food remains, a shrine or a rock covered with petroglyphs would be considered an individual feature (moveable artifacts such as adzes, fishhooks, etc. were considered elements within features, not features themselves). A cluster of features situated near to each other and showing evidence of having possibly been related would constitute a site. These, of course, are text book definitions. As the survey progressed, the boundaries of sites were often drawn somewhat arbitrarily, depending upon the conditions prevailing at the time. In areas possessing relatively few archaeological remains, individual features were often designated as separate sites, while in areas containing an abundance of remains, features were clumped together into sites covering quite extensive area. It is for this reason that some sites lying along the islands northeast coast contain upwards of 68 features.

An idea of the true density of Hawaiian occupation on Kaho'olawe can thus be better gained from looking at the total number of features located by the survey, rather than from looking at the number of sites.

As a result of the discoveries made during the 1976-80 survey, Kaho'olawe was declared a National Historic Property and placed on the National Register of Historic Places. This was the first time that an entire island to be listed on the National Register. Its inclusion on the Register means that Kaho'olawe is recognized as being of unique and significant value to the history and culture of the nation.

17.) The loyalty and affection which the people of Kaho'olawe felt for their home island is aptly illustrated by an incident recorded by Captain Charles Wilkes of the United States Exploring Expedition, which visited the Hawaiian chain

in 1840. Commenting on what he perceived to be a lack of nationalism among native Hawaiians, Wilkes wrote; "They [the Hawaiian people] appear to me to be wanting in that national pride which was found a predominant trait in the groups we had previously visited. They speak less of their country than other Polynesians; but Mr. Richards and Dr. Judd [protestant missionaries] both assured me that they felt a certain degree of pride in their respective islands. As an instance of this, it was stated to me that the government proposing to make the island of Kahoolawe a place for convicts, wished to induce the people of the island to quit it; but no persuasion could prevail on them to do so; and it is said that this feeling has existed to such an extent there, that the young women have refused to marry, unless under a pledge that they shall not be required to remove."(Wilkes 1845, Vol. IV:256-57)

Evidence that the ancient Hawaiians looked upon Kaho'olawe as an integral part of the Hawaiian chain, and did not ignore it as we do today, is present throughout their traditional literature. One example of this attitude can be found in the *mele* (chant) describing the fire goddess Pele's travels in search of a home. Having unsuccessfully tried to establish herself at Haleakala, she bids farewell to Maui and the surrounding islands in the words;

"Aloha o Maui, aloha, e!
Aloha o Moloka'i, aloha, e!
Aloha o Lana'i, aloha, e!
Aloha o Kaho'olawe, aloha, e!"
(Emerson 1915:xv)

18.) The valley of Hakioawa contains a total of 41 archaeological sites, comprised of 182 individual features. Due to this abundance of archaeological remains, the area was designated as the Hakioawa Archaeological District and given the single overall site number 356.

19.) Kirch 1985:34-5.

20.) While it was possible, in ancient Hawai'i, for the *maka'ainana* (common people) to construct small religious structures such as family or fishing shrines, the erection of major temples was done only at the instigation of a member of the *ali'i* (chiefly class). The decision as to where and how such a temple would be built was made by a *kahuna* (priest) knowledgeable in such things, and the services held at it were conducted by one or more *kahuna* of the god to whom it was dedicated.

21.) The twin gulches which form the valley of Hakioawa may have given the valley its name. One way of breaking this place name down for translation is to separate it into the two component words *haki* and *'oawa*. *Haki* is a variant form of *ha'i*, meaning "broken" (Pukui & Elbert 1971:44 & 46), while *'oawa* carries the same meaning as *awaawa*,

"valley". (Pukui & Elbert 1971:253) In her Place Names of Hawaii, Mary Pukui translates Hakioawa as; "Lit., breaking of [the] harbor." (Pukui, Elbert and Mookini 1974:35) It seems possible that it might also be translated as "broken valley".

22.) Archaeologist Mikk Kaschko, who worked on the 1976-80 archaeological survey of Kaho'olawe, has mentioned that during the survey a test pit was dug into the valley floor just back of the beach at Hakioawa. He reports that the test pit revealed an intact cultural deposit buried beneath approximately 2 meters of recently deposited alluvial sediments. (Kaschko, pers. comm.) This would suggest that occupation did indeed take place within the floor of the valley. The excavation of this test trench does not appear to be mentioned in the survey's final report, or in the Nomination forms for the Hakioawa area.

23.) The Hawaiian historian Samuel Kamakau commented that in ancient Hawai'i; "Houses might be large or small. The ruling chiefs, chiefly land holders, land agents, native sons, and prominent people had large establishments, with sheds, men's houses, sleeping sheds, heiau houses, women's eating houses, houses for the storage of provisions, houses for cooking, and many other houses. The establishments of the people [maka'ainana] were sometimes large and sometimes small. Each man had several houses - for wife, children, parents, relatives, and retainers." (Kamakau 1976:96) [?].

In his collection of Hawaiian Antiquities, David Malo writes that; "People who were of no account (lapuwale) did not follow this practice. They went in and occupied their houses without any such ceremony. Such folks only cared for a little shanty, anyway; the fire-place was close to their head, and the poi dish conveniently at hand; and so with but one house, they made shift to get along. People who were well off, however, those of respectability, of character, persons of wealth or who belonged to the ali'i class, sought to do everything decorously and in good style; they had separate houses for themselves and for their wives. There was a special house for the man to sleep in with his wife and children (hale noa), also a number of houses specially devoted to different kinds of work, including one for the wife to do her work in (hale kua)." (Malo 1951:122)

Nathaniel Emerson who translated and edited Malo's book, further explains this custom by saying; "Every self-respecting Hawaiian who desired to live up to the system of tabu was obliged to build for himself and family a number of houses, the chief motive being to separate the sexes entirely from each other while eating, as well as to provide suitable places for carrying on the various occupations incident to a self-sustaining savage life. First may be mentioned the *mua*, which was the men's eating house and was tabu to females; secondly the *hale noa* [literally "the free house", where "the man and his wife met freely together" (Malo 1951:29). This

was also referred to as a *hale moe*, a sleeping house], which was the one place where the family mingled on familiar terms during the day and where they slept at night; third, the *hale aina*, the women's eating house, which was tabu to the men. If the woman of the house was given to that sort of thing, she must have, fourth, a *hale kua*, which was the place in which she would beat out *kapa*, braid mats, and carry on a variety of domestic arts. Fifth was the *hale pea*, a place where the women isolated themselves during their monthly periods of impurity." (Malo 1951:126) Malo himself describes these domestic structures and the varied restrictions related to them in greater detail on page 29 of Hawaiian Antiquities.

E.S. Craighill Handy and Mary Kawena Pukui provide a detailed description of the make-up of a "model" *kauhale* as it existed in the Ka'u district of Hawai'i in their book The Polynesian Family System in Ka'u, Hawai'i. (Handy & Pukui 1958:7-14) Patrick Kirch, in his Feather Gods and Fishhooks, discusses in detail the physical remnants of *kauhale* as they have been encountered at archaeological sites on various islands throughout the Hawaiian chain. (Kirch 1985:251-257)

24.) The word midden is an archaeological term used to refer to the non-artifactual remains of ancient human habitation. In essence, midden is simply ancient rubbish. It consists primarily of food remains, such as bones and shells, discarded by the early occupants of a site. Often mixed in with this domestic refuse one finds used and or broken artifacts, or artifacts which have been lost, forgotten or left at the abandonment of the site.

25.) The presence of small pools of standing water in the usually dry streambeds of Hakioawa was attested to by Edward Perkins who visited the bay in 1850. He remarked at the time that; "There was neither stream or spring upon the island; our thirst was quenched at the pools of rain-water, where rocky basins had furnished natural reservoirs." (Perkins 1854:15[?]) Upon the arrival of Perkins and his companions in Hakioawa, their Hawaiian guide, Makaoe, a former resident of Kaho'olawe; "disappeared with a calabash up one of the ravines for water." (Perkins 1854:15[?])

In describing conditions along the dry leeward coast of neighboring Lana'i, Kenneth Emory wrote in 1924 that; "Such pools existing in all the ravines along the coast would furnish considerable water for two weeks after a heavy rain. The basin of some of these pools had been artificially deepened. By digging and damming a large water supply from winter rains could be had locally for a period of several months in the year." (Emory 1969:47) It seems likely that similar measures may have been used in ancient times at Hakioawa and within Kaho'olawe's other coastal valleys.

26.) "The old Hawaiian wells were located next to the walls of the gulches, where they tapped water from the basalt

rather than from the alluvium." (Stearns 1940:130) Such wells were usually shallow pits dug against the foot of the slope, not deep shafts like European wells. A more detailed description of such wells can be found in Chapter V.

There is evidence that the ranch well at Hakioawa yielded water suitable for stock up until about 1900. (Stearns 1940:130) Stearns describes this ranch well as being eighteen feet deep by eight feet in diameter with an average of fifteen feet of water in it. The water was brackish. A windmill appears to have pumped water up into troughs for the stock. (Stearns 1940:130)

27.) *Kalo*, known more commonly throughout the Pacific and Southeast Asia as taro (*Colocasia esculenta*), is a tropical root crop grow in flooded fields or in well watered soils. In Hawai'i, the root of the taro was commonly steamed and then pounded into a sticky paste called *poi*, which was eaten in conjunction with other foods. For most Hawaiians, particularly those living in the wet, windward valleys, *kalo* was their primary source of carbohydrate. In drier regions its place was taken by the sweet potato. (Handy & Handy 1972:71-118) Though *kalo* does not grow well in arid areas, it is possible that certain forms of dryland taro was raised on Kaho'olawe's upper slopes. The botanist Charles Forbes, who visited the island as a member of the 1913 Bishop Museum expedition, states in his report that; "In former times dry land taro, sweet potatoes and bananas were cultivated on the island, according to an old native." (Forbes 1913:86). *Kalo* grown on Maui was probably brought over to the island in the form of *pa'i 'ai*, small bricks of dried *poi* wrapped tightly in *ki* leaves. During the historic period fishermen from Kaho'olawe are known to have travelled to Lahaina to exchange fish for *poi*. William Allen, who visited the island the year it was first leased for sheep ranching, wrote that; "I found on the Island about fifty Natives men, women and children, the men are engaged in fishing which is very good there most of the year, as there are several kinds which frequent the sea about the Island. These natives do not live here all the year, but are here most of the time except during the rainy season, their food (Poi) they bring from Maui after disposing of their Fish in Lahaina." (from a letter dated May 31st, 1858, presently held in the R.C. Wyllie Private Collection at the Hawaii State Archives (Appendix R)).

28.) The root of the *awa* (*Piper methisticum*) plant was crushed, mixed with water and then strained to create a narcotic beverage. During religious ceremonies, a cup of this beverage, or at times the dry root itself, was often presented as an offering to one of the ancient gods. (Handy & Handy 1972:189-199)

29.) Though sizeable religious structures are found elsewhere on the island; at Kamohio, Wai Kahalulu and Papakanui in particular, nowhere is there a greater concentration of these

structures than at Hakioawa, where archaeological surveys have identified six possible ceremonial sites, three of which (Sites 350, 358 and 560), might be classified as communal temples, rather than simple family or craft shrines.

30.) In the log of Captain Cook's third and final voyage is the note; "We had now leisure to examine these people concerning the Number of Islands within their Knowledge: Owhyhe [Hawai'i] for which we are now steering & is the last Island to the East: to the Westward of which they mentioned Mowee [Maui], Morokoi [Moloka'i], Ranai [Lana'i], Kahorowa [Kaho'olawe], Morokeene [Molokini],...The Chief of Mowee is named Taheeteeree [Kahekili], who has also under his subjection the four smaller Islds that follow in the Catalogue". (Beaglehole 1955-74:III:I:500) That Kaho'olawe fell within the domain of Kahekili is attested to by the Hawaiian historian Samuel Kamakau. (Kamakau 1961:92)

At present we possess little detailed information regarding the exact political relationship which existed in the precontact period between Kaho'olawe and Maui. We cannot say for certain whether Kaho'olawe was considered a separate 'okana (district) under the control of its own chiefly family, or whether it was a smaller land division, an *ahupua'a*, within one of the 'okana of neighboring Maui. (For a detailed description of the ancient Hawaiian concept of land and land tenure, see Handy and Handy's Native Planters in Old Hawaii - Handy and Handy 1972:41-53)

If Kaho'olawe was indeed an *ahupua'a*, it would have been governed by a lower chief, known as an *ali'i 'ai ahupua'a*; "chief who eats the *ahupua'a*". (Handy and Handy 1972:48) Unlike the 'okana, the control of which was usually passed down through a single chiefly family, control of an *ahupua'a* was not hereditary, but was assigned by the *ali'i nui* (high chief) to one of his loyal retainers, who would then exercise stewardship over the area and collect taxes from its residents.

None of the documents dating from the Mahele, the great land division of 1848 which formalized the legal ownership of land in Hawai'i, give any indication as to the traditional status of Kaho'olawe. They indicate only that by the 1840s the island was considered to be among the lands owned by the king.

One clue we do possess as to Kaho'olawe's place within this hierarchy of land divisions is provided by a hand drawn sketch map held in the files of the Hawaii State Survey Office. Bearing the legend "Kahoolawe is an *ahupuaa* divided into *ilis* as per map", this map shows the island roughly divided into twelve wedge-shaped land sections radiating out from the crater of Lua Moaula, the remnant caldera of the volcano which originally formed the island.

'Ili, or 'ili 'aina, were strips of land allocated to separate 'ohana (extended families). These were the most permanent of the ancient Hawaiian land divisions and usually

remained within the control of a single 'ohana over many generations. The layout of the 'ili shown on this hand drawn map seems to fit well with what we know of Kaho'olawe's prehistoric settlement pattern. The largest land sections cover stretches of the islands dry western end; areas which, at least in the later part of Kaho'olawe's prehistory, do not appear to have been heavily settled. By contrast, the wetter eastern end, with its deep cut valleys and fertile uplands, is divided into a number of much smaller wedges, each opening onto a crescent bay. These eastern valleys appear to have held the bulk of the island's population during the late prehistoric period.

Even on an island as small as Kaho'olawe, the use of this traditional style of land division, with strips of land running from the mountains to the sea, allowed the island's early inhabitants to exploit a wide range of environmental zones; from the fertile agricultural areas of the island's upper slopes to the rich fishing grounds offshore. Each of these pie-shaped 'ili provided the people dwelling within it with access to almost the full spectrum of the island's natural resources.

All of this seems to suggest that the land segments marked on this map accurately reflect the island's traditional land divisions. The map, however, possesses neither a name nor date. Without knowing when and by whom the map was drawn, we have no way of determining the true source of the information contained within it. Nor have we any way of assessing its accuracy. The close association between the land divisions marked on this map and the patterns of ancient settlement revealed by the island's archaeological remains, would suggest that it was drawn with the help of someone familiar with the island, perhaps a *kama'aina* of Kaho'olawe.

This impression is strengthened when one looks a second map, drawn by the same hand, and filed together with the "ili" map in the State Survey Office. This companion sketch gives names to various places on the island. For the most part these names match place names known to us from other reliable sources. There are also, however, place names not mentioned on any other map, as well as references to figures from Hawaiian legend who appear somehow linked to the island.

Although we cannot state for certain who these two maps were drawn by, we have been able to uncover evidence suggesting something as to their origins and pedigree. These maps, both labeled "Doc. 1126", are kept in an envelope in the Survey Office's document file. The envelope is filed between document envelope 1125, which contains a sketch dated 1889; and document envelope 1127, which contains a map dated 1889. It seems reasonable, therefore, to suggest that Document 1126 may have been drawn some time around 1889.

As to the author of these maps, we possess a single hint gleamed from the field notebooks of J.F.G. Stokes, an ethnologist with the Bishop Museum who visited Kaho'olawe in

1913. Stokes writes that, on; "Leaving smugglers bay [Hana Kanaia], we went to the S. point, & then struck inland trying to locate the Kahuahale of Kamohoalii, noted by Joe Emerson on map." (Stokes 1913:I:9; see Appendix W)

The companion to the Doc. 1126 "ili" map is the only map we know of, drawn prior to Stokes' visit, which shows the place name "Kahuahale o Kamohalii". We also know that Stokes was familiar with this map and used it as references in drawing his own field maps of the island. It seems possible, therefore, that the Joe Emerson referred to by Stokes in his field notebook, was the author of the Doc. 1126 maps.

Joe Emerson, or more properly Joseph Emerson, was a surveyor who worked for the Hawaiian Government Survey Office around the turn of the century. He was also, like his brother Nathaniel Emerson, a well known collector of Hawaiian traditional lore. Having grown up in the islands, son of missionary John Emerson, Joseph was fluent in the Hawaiian language and often collected oral traditions from the *kama'aina* of the lands he surveyed. If Joseph Emerson did indeed draft these two maps, then it seems likely that he collected the place names and other information contained within them from a local informant familiar with the island. Certainly the names and other information contained on these two maps fit well with information from other knowledgable sources.

If these maps are to be trusted, and Kaho'olawe was indeed an *ahupua'a* divided into twelve 'ili, then it is the only known instance of an entire island being comprised of a single *ahupua'a*.

31.) In his 1902 article describing the penal colony which formerly existed on Kaho'olawe, Thomas Thrum writes; "After its [Kaho'olawe's] designation as a convict station the former settlers left and returned to Honuaula, whence most of them had come." (Thrum 1902:121) Whether he is referring here to the "settlers" of the island as a whole, or to those who once dwelt in Kaulana bay, the site of the penal colony, is uncertain.

We also possess information that a number of the individuals known to have been living on Kaho'olawe in the early to mid 1800s (see Appendix G) are related to families presently living in Honua'ula. (Leslie Kuliloio, pers. comm.)

32.) Some disagreement exists among Hawaiian scholars as to the proper pronunciation of the name Aiai. While the mostly commonly heard pronunciation is 'Ai'ai (literally "eat food") (Pukui & Elbert 1971:381), at least one scholar, whose family came from the area of Maui where Aiai is said to have been born, states that his *kupuna* (older relatives) pronounced the name A'ia'i. (Nathan Napoka, pers. comm.) Since the proper pronunciation of the name remains uncertain, we have used the most widely used pronunciation for the purposes of this report.

33.) The article containing this legend can be found on pages 114 to 124 and is continued in the Annual for 1902 on pages 114 to 128.

34.) The name Moke is the Hawaiian equivalent of the English name Moses. Moke Manu is therefore also known as Moses Manu. He is referred to in this way by A.D. Kahaulelio, who knew him from boyhood, and describes him as; "Moses Manu the well known writer of Hawaiian legends". (Kahaulelio, 1902:64, a copy of Kahaulelio's article as well as an English translation by Mary Kawena Pukui is on file in the Hawaii Ethnographic Notes Collection of the Bishop Museum Archives. Those sections dealing with Kaho'olawe have been included in Appendix L) According to Kahaulelio, Manu was born in Hana, Maui in 1837. Like Kahaulelio, Manu was a fisherman and may well have visited the island of Kaho'olawe and seen the fishing shrine at Hakioawa.

35.) Thrum 1901:114. Both parts of the legend were reprinted in Thrum's Hawaiian Folk Tales, first published in 1912. (Thrum 1921:215-249) A shorter version of the 'Ai'ai legend is given by Thrum in his book, More Hawaiian Folk Tales. (Thrum 1923:201-202) This version is similar in content, but includes a few variations. It is not known whether Moku Manu's original Hawaiian language manuscript of the 'Ai'ai legend has survived. If so, it may provide us with details not found in the condensed English version.

36.) Ku'ula's name translates as "red [or sacred] Ku". (Pukui & Elbert 1971:391) The god Ku was one of the supreme deities in the Hawaiian pantheon, and Ku'ula was probably thought of as a *kino*, an incarnation or a manifestation of Ku (literally, one of the bodies of Ku). Kamakau explains this relationship in speaking of another fishing deity, Kanemakua. "Kanemakua, one of the forms (*kino*) of Kane in the sphere of fishing who "possessed" (*noho maluna*) a man by the name of Kanemakua in ancient times". (Kamakau 1976:61). In the same way, Ku probably "possessed" (*noho maluna*) the man Ku'ula. In legend, Ku'ula is also often referred to as Ku'ulakai, or the "red [or sacred] Ku [of the] sea. [Red was taboo to Ku'ula, and persons wearing red might not approach a fishing shrine]". (Pukui & Elbert 1971:391) Martha Beckwith renders it as "Ku-ula or Ku-ula-kai (Ku of the abundance of the sea)". (Beckwith 1970:15) Ku'ula's brother, who worked as a farmer, harvesting the wealth of the land rather than the sea, was known as Ku'ulauka; red Ku [of the] Uplands.

37.) Pukui & Elbert describe her as "Hina-puku-i'a. Goddess of fishermen, wife of Ku-'ula-kai, mother of 'Ai'ai, and sister of Hina-puku-'ia [goddess of food plants]". (Pukui & Elbert 1971:384) Her name means literally "Hina gathering seafood". (Pukui & Elbert 1971:384) Martha Beckwith translated it as, "Woman from whom fishes are born". (Beckwith

1970:16) Hina was one of the most widely known of the Polynesian goddesses, and, like Ku, she had many bodies. The *ko'a*, or branch coral, is one of the *kinolau*; the physical manifestations, of the goddess Hina. This may have been one of the reasons why pieces of branch coral were frequently placed on or near fishing shrines sacred to Ku'ula.

38.) Thrum 1921:215.

39.) Thrum 1921:216.

40.) This legendary chief of Hana should not be confused with the shark god, Kamohoali'i, whom legends also associate with the island of Kaho'olawe. In his An Account of the Polynesian Race, Abraham Fornander speaks of a chief of east Maui by the name of "Kamohohalii" who lived two generations before the great Maui chief Piilani. (Fornander 1969:78) Using J.F.G. Stokes' estimate of roughly 20 years per generation (Stokes 1933:48-63), one might suggest that Kamohohalii's reign fell somewhere in the early years of the 16th century. If Fornander's "Kamohohalii" was indeed the "Kamohoalii" of the Ku'ula legend, then the events of that legend may have taken place some time around 1520 A.D..

41.) Thrum 1921:216-17.

42.) Thrum 1921:216-17.

43.) 'Ai'ai is also sometimes referred to as "'Ai'ai a Ku'ula" ('Ai'ai of [son of] Ku'ula). His name means literally "eat food". (Pukui & Elbert 1971:381)

44.) Thrum 1907:222-3.

45.) Thrum 1907:223.

46.) Thrum 1907:226-7. The Missionary William Ellis, who toured the islands in the early 1820s provided a description of *ko'a ku'ula* as they existed at that time on Maui. "Leaving the heiau, we passed by a number of smaller temples, principally on the sea shore, dedicated to Kuura [Ku'ula], a male, and Hina, a female idol, worshipped by fishermen, as they were supposed to preside over the sea, and to conduct or impel to the shores of Hawaii, the various shoals of fish that visit them at different seasons of the year. The first of any kind of fish, taken in the season, was always presented to them, especially the operu [opelu], a kind of herring. This custom exactly accords with the former practice of the inhabitants of Maui and the adjacent islands, and of the Society islanders." (Ellis, 1979, p.73)

Commonly, an offering of two fish from the first catch was made at the *ku'ula*, one for the male and the other for the female 'aumakua. (see Beckwith 1970:19-20) Each *ku'ula*

shrine usually contained a physical representation of the fishing deity, an upright stone placed within or atop the *ko'a*. It was to this stone that offerings were made.

47.) Thrum 1907:229.

48.) The last *ko'a ku'ula* which 'Ai'ai constructed on Maui before travelling to Kaho'olawe appears to have been situated at Honuaula.

In Manu's version of the 'Ai'ai legend the terms *ko'a* and *ku'ula* are used almost interchangeably. Traditionally, however, the word *ko'a* was used to refer to a number of different types of small shrines. There were *ko'a* dedicated to the god *Ku'ula* as well as to other deities such as *Kaneko'a*, the god of fresh water fishing (Kamakau 1964:33), and to shark gods such as *Kamohoali'i*. (Kamakau 1976:133) As the early Hawaiian writer Samuel Kamakau explained it; "There were many kinds of gods of the people who worshiped fishing gods. The people whose god was *Ku'ula* built *Ku'ula ko'a*; those whose god was *Kanemakua* built *Kanemakua ko'a*, and those of *Kinilau*, *Kamohoali'i*, and *Kaneko'a* did likewise, and so there were many, many *ko'a*." (Kamakau 1976:133)

In the traditional literature, when a shrine is described as a *ku'ula*, we can be certain that it was sanctified to the worship of the fishing deity *Ku'ula*. Samuel Kamakau distinguishes these type of *ko'a* by referring to them as *ko'a ku'ula*. "The people, *maka'ainana*, erected fishing shrines, *ko'a ku'ula*, all around the islands so that the land would be provided with fish." (Kamakau 1976:129) For the purposes of this report, therefore, when a shrine is known to be associated with the god *Ku'ula* it is referred to using Kamakau's term *ko'a ku'ula*. If the deity to whom it was dedicated is unknown, it will be referred to simply as a *ko'a*.

49.) Thrum 1902:119-20. The 1912 version of the legend differs only slightly. "Thus was performed the good work of *Aiai* in establishing *ku-ula* stations and fish stones all around the island of Maui. It is also said that he visited *Kahoolawe* and established a *ku-ula* at *Hakioawa*, though it differs from the others, being built on a high bluff overlooking the sea, somewhat like a temple, by placing stones in the form of a square, in the middle of which was left a space wherein the fishermen of that island laid their first fish caught, as a thank offering. *Awa* and *kapa* were also placed there as an offering to the fish deities." (Thrum 1921:238)

50.) Manu's detailed description of the *ko'a ku'ula* at *Hakioawa* suggests that he himself may have seen the shrine or that he heard a description of it from someone who had.

- 51.) In his Archaeology of Kaho'olawe, Gilbert McAllister refers to this structure as Site 22. (McAllister 1933:50) During the 1976-80 survey of the island it was renumbered Site 348, Feature A.
- 52.) Stokes 1913:I:6. This and other descriptions of the archaeological sites around Hakioawa seen by Stokes are taken from the first of his two field notebooks, a typescript of which is included in Appendix W of this report. A photo taken by Stokes of this particular site is held at the Bishop Museum Archives (negative number 1210).
- 53.) McAllister 1933:50.
- 54.) A map and description of Site 348, Feature A as it appeared at the time of the 1976-80 survey can be found in the "National Register of Historic Places Inventory -- Nomination Form" for the site, a copy of which is on file at the Hawaii State Historic Preservation Office.
- 55.) McAllister recorded this structure as Site 21. (McAllister 1933:49-50) It was renumbered during the 1976-80 survey and is now referred to as Site 350. Stokes, who also visited and described the site (Stokes 1913:I:6), took a number of photographs of it which are now in the Bishop Museum Archives. Negative numbers 1203, 1205, 1206 and 1209 are photographs of the site itself, while number 3387 is a photograph of Stokes' map of the site. Stokes drafted two maps of the site, both of which are in the Bishop Museum Archives (Stokes' maps, Roll 6).
- 56.) A map of Site 350, drawn by the 1976-80 survey team, can be found in the "National Register of Historic Places Inventory -- Nomination Form" for the site, a copy of which is on file at the Hawaii State Historic Preservation Office.
- 57.) One difficulty encountered with the use of the word *heiau* is that the definition of this term appears to have changed somewhat over time. In the writings of early experts in traditional Hawaiian culture, such as David Malo and Samuel Kamakau, the word *heiau* is often used as a general term referring to any religious structure at which offerings were made. This included anything from a *pohaku o Kane*, a single upright stone at which a family would worship (Kirch 1985:260 & Kamakau 1964:32-33) to a *luakini po'o kanaka*, a massive state temple where human sacrifices were offered. (Kirch 1985:262) The term *heiau* was also at times used to refer to a natural object or place: "an element in a landscape where the god manifests himself and where sacrifices are offered to him." (Valeri 1985:173) By this definition, a *ko'a ku'ula* is simply a form of *heiau*, and Manu's comment that the *ko'a ku'ula* at Hakioawa was "somewhat like a *heiau* (temple)", doesn't make much sense. However, in

the early years of this century, when Manu recorded the 'Ai'ai legend, the term heiau was more commonly used to refer only to larger religious structures. Thus Stokes describes Site 348, Feature A as "probably a Kuula", while he identifies the similar, but much larger Site 350 as "a reputed heiau". It is possible that in describing 'Ai'ai's ko'a ku'ula as being "somewhat like a heiau (temple)", Manu is referring to its size. If this is indeed the case, then Site 350 is by far the more likely candidate.

58.) Stokes 1913:I:6. See Appendix W.

59.) In his description of Site 350, McAllister mentions that; "There is much old coral lying about the site." (McAllister 1933:50)

60.) Inez Ashdown, in her personal writings, states that a number of other ko'a on Kaho'olawe were built by 'Ai'ai. Her unpublished article "The Valiant Island" states that; "Ai'ai's 2 ko'a at Kanapou Bay, at Ku He'e-i'a Bay, and on Lana'i are in memory of his father and to remind people of the Laws of the Sea or the Kanawai regarding fishing etc.. His 2 ko'a at Lae o Ku-aka-iwa and Pu'u Koa'e point to deep-sea fishing, also...His two ko'a at Hanakanaia Bay (which should be Hono-o-ke Honu or Hono-kana-i'a) for the "turtle or Honu-god which protects Kaho'olawe, were built by Ai'ai. (a copy of this undated article is held at the Bishop Museum Archives. The section quoted here is from page 3 of that copy) In her annotations of McAllister's Archaeology of Kaho'olawe can be found the notes; "'Ai'ai built these ["Nine fishing shrines"- she does not say where they are located] in honor of his father, Ku-ula-kai and mother, Hina-pu-ku-ia. Some were more modern & evidently built by devotees among fishermen." (this note can be found on page 10 of McAllister, a copy of which, with Ashdown's notes, is on file at the Archives of the Bishop Museum) There does not appear to be any supporting evidence in the traditional literature to suggest that 'Ai'ai constructed more than one ko'a ku'ula on Kaho'olawe.

61.) A vague (and unsubstantiated) suggestion of what some of these heiau may have been used for is provided by Inez Ashdown. In her annotated copy of McAllister's Archaeology of Kaho'olawe can be found the following hand written note. "Hakio'awa is where the 'awa was prepared by the priests. They [the heiau?] were to Lono; at least the older one was to him. When Kalaniopuu was raiding he may have re-dedicated or have built one to Ku ka ili moku. One certainly was to Kane & Kanaloa, the one nearer to Kanapou Bay side. Kanaloa is on of the ancient names of the island." (this note can be found on page 10 of Ashdown's annotated McAllister, a copy of which is in the Bishop Museum Archives). Kalaniopuu's raid on Kaho'olawe, which is described later on in this chapter, was a brief attack on the island. He certainly did not have time

during the attack to superintend the construction of a temple to his war god Kukailimoku. It is also doubtful that he would have paused in his plundering to rededicate one of the island's shrines to this deity, knowing that once he and his troops had departed Kaho'olawe would fall back under the control of his rival Kahekili.

62.) In his 1933 report, McAllister refers to this structure as Site 20. (McAllister 1933:48-49) During the 1976-80 survey it was renumbered Site 358. McAllister believed that this enclosure and its associated terraces may have been the site described in Stokes' notebooks as, "a house lot of two platforms on which stood a house when the Olga [a three masted schooner wrecked at Hakioawa on May 4th, 1906] went ashore. This house the capt. of the vessel is reputed to have set on fire to attract attention." (Stokes 1913:I:6, see Appendix W).

McAllister strongly disagreed with this interpretation of the site, contending that, "the site does not appear to have been a house foundation. It is larger and more pretentious than is common, and the upper terrace does not suggest the foundation for a hut, which would be the usual location in a dwelling of such divisions." (McAllister 1933:49)

McAllister's contention seems to be borne out by a photograph taken at Hakioawa some time around 1895, a decade before the Olga was wrecked, which is presently on file in the Archives of the Bishop Museum (Neg. No. CP104,221). In this photograph, taken looking southeast from the southern rim of the central ridge, one can clearly see the high walls of Site 350 standing out against the valley's southern slope. Towards the right border of the picture one can just make out what appear to be the somewhat blurry terraces of Site 358, devoid of any structure. A house, evidently the one which the captain of the Olga reputedly burned, stands out clearly in the center of the photo. It is a small, apparently one roomed, structure, built of white washed clapboard, and surrounded by a wire fence, to which two saddle horses are tied. Behind it stand what appear to be two further structures; a smaller wood framed shed down near the beach, and a possible grass house set just below site 358. All of these structures would seem, by their appearance, to have been built in the early years of the ranching period. Certainly, they were not there in 1850, when Edward Perkins visited the valley (see note 98).

63.) At some time after it was mapped by the 1976-80 archaeological survey, this site was cleared and to some extent rebuilt by members of the Protect Kaho'olawe Ohana. In addition to modifying the interior of the enclosure, they constructed a stone platform atop one of the lower terraces (Feature J). The site has since been rededicated as a *Hale o Lono*, a temple for the increase of food crops or rain (Valeri

1985:177), and dedicated to the god Lono. It is presently used by the Ohana during their annual Makahiki ceremonies.

64.) Stokes 1913 I:9, see Appendix W.

65.) Stokes 1913 I:13, see Appendix W.

66.) Stokes' sketch of this site can be found on page 13 of his first field notebook (see Appendix W). The three photographs of this site, taken by Stokes, are on file at the Bishop Museum Archives (negative numbers 3545-47). In his Archaeology of Kahoolawe, McAllister designated this burial area as Site 23. (McAllister 1933:50-51) It has since been renumbered Site 560.

67.) Site 560, Feature C.

68.) Site 560, Feature D.

69.) The discovery of these skeletons and the steps taken to preserve them are described in the National Register of Historic Places Inventory -- Nomination Form for Site 560, a copy of which is on file at the Hawaii State Historic Preservation Office.

70.) The following is a list of the various human burials unearthed at the Hakioawa dune site.

Burials removed by J.F.G. Stokes in 1913.

<u>Locality</u>	<u>Catalogue Number</u>	<u>Age</u>	<u>Sex</u>
Hakioawa	0191	Child	Uncertain
Hakioawa	0192	Child	Uncertain
Hakioawa	0193	Child	Uncertain
Hakioawa	0195	Child	Uncertain
Hakioawa	0196	Adult	Female
Hakioawa	0197	Adult	Female
Hakioawa	0363	Child	Uncertain

Burials uncovered by the 1976-80 survey team.

<u>Site</u>	<u>Feature</u>	<u>Number</u>	<u>Age</u>	<u>Sex</u>
560	D	1	Uncertain	Uncertain
560	D	2	Adult (36-55 years)	Uncertain
560	D	3	Adult	Uncertain
560	D	4	Child (less than 6 years)	Uncertain
560	D	5	Adult	Uncertain
560	D	6	Adult	Uncertain
560	E	1	Adult	Uncertain
560	E	2	Adult (18-25 years)	Female

Total Number of

<u>Individuals</u>	<u>Children</u>	<u>Age</u>		<u>Sex</u>			
		<u>Young</u>	<u>Adults</u>	<u>Adults</u>	<u>Females</u>	<u>Males</u>	<u>Uncertain</u>
15	6	1	7		3	0	12

Further skeletal remains were found eroding out of the dune adjacent to a nearby stone-faced terrace (Site 560, Feature G) which appears to have also formed part of the site. No record can be found of their age or sex.

71.) Two of these stones are described as being of coral, one of smooth weathered basalt and one of vesicular olivine-rich basalt.

72.) The missionary William Ellis, who visited the islands in the early 1820s, wrote that; "We have often had occasion to notice the fondness of the natives for their dogs. The pets are usually of a small size; and though the females generally evince the greatest regard for them, frequently bringing them in their arms or on their backs, when they come to our public meetings, yet men are occasionally seen attended by their favorite dog." (Ellis 1828:416)

73.) Bowen 1961:179. This custom continued into historic period. An account of one such burial which took place in the 19th century is provided by W.P. Daniela. Daniela's account has been translated by Mary Pukui and is filed as "Mss Body buried with a live dog" in the Hawaiian Ethnographic Notes 6: 3144. on file at the Bishop Museum Archives.

74.) "The high concentrations of burials in sand environments, particularly where dunes have been formed, seem to indicate that these areas were set aside for disposal and probably used over long periods of time. Dunes were waste areas incapable of food production and usually located apart from residential areas. Digging was easy and preservation of bone material excellent." (Bowen 1961:153) "Thus sand burial involved an established burial ground, whereas earth burial was an individual matter." (Bowen 1961:153)

75.) Bowen 1961:144.

76.) Since no mention of an area named Keahou can be found among the place names of Hawai'i provided by Pukui, Elbert and Mookini (Pukui, Elbert and Mookini 1974), it appears possible that Ellis is here referring to the settlement of Keahou in Kailua, Kona, Hawai'i.

77.) Ellis 1828:362. Ellis goes on to state that; "Occasionally they buried their dead in sequestered places, at a short distance from their habitations, but frequently in their gardens, and sometimes in their houses. Their graves were not deep, and the bodies were usually placed in them in a sitting position." (Ellis 1828:362)

78.) It is possible, though seemingly unlikely, that this site represents the remains of a *hale 'aina* (a women's eating house), or some other domestic structure. Hawaiians are known to have buried deceased individuals beneath the floors of their house platforms, but when this was done only a single individual was buried and the structure was normally abandoned. It is hard to conceive of a former dwelling place containing so many bodies.

79.) Malo 1951:28.

80.) "Among the articles of food that were set apart for the exclusive use of man, of which it was forbidden the woman to eat, were pork, bananas, cocoanuts, also certain fishes, the ulua, kumu (a red fish used in sacrifice), the niuhi shark, the sea turtle, the e-a (the sea turtle that furnished the tortoise shell), the pahu, the na-ia (porpoise), the whale, the nuao, hahalua hihimanu (the ray) and the hailepo. If a woman was clearly detected in the act of eating any of these things, as well as a number of other articles that were tabu, which I have not enumerated, she was put to death." (Malo 1951:29)

81.) Hawaiian historian David Malo states that; "The women were a further source of disagreement; they addressed their worship to female deities, and the god of one was different from the god of another. Then too the gods of the female chiefs of a high rank were different from the gods of those of a lower rank." (Malo 1951:81)

82.) In their Hawaiian Dictionary, Pukui and Elbert define *hale o Papa* as a; "House of the goddess Papa, i.e., house where religious services were held for women, said to be outside the *heiau* walls." (Pukui & Elbert 1971:50) Papa is often thought of as being another name for the goddess Haumea, who was the wife of Wakea and through him the legendary ancestress of the Hawaiian race. Her role within the Hawaiian pantheon of gods was as the source of female fertility, and she presided over childbirth. (Pukui & Elbert 1971:396, 382)

83.) Ne's statement is recorded in "'Oia'i'o o Kaho'olawe: The Truth Of Kaho'olawe; Native Hawaiian Perspectives On The Significance Of Kaho'olawe To Hawai'i Nei", written by members of the Protect Kaho'olawe 'Ohana and attached as Appendix D to Robert Hommon's, Multiple Resource Nomination Form for the Historic Resources of Kaho'olawe. (Protect Kaho'olawe 'Ohana 1980)

"Kupuna Harriet Ne of Kalama'ula, Moloka'i (having spent a week on Kaho'olawe in 1932 with a kama'aina to Kaho'olawe), and Elaine Mullaney of Kapahulu, O'ahu, were able to share their mana in explaining the Hale of Papa heiau at Hakioawa,

then discovering pohaku [stones] that were definitely used by kahuna healers." (Protect Kaho'olawe Ohana 1980:D-20)

The authors of the 'Ohana report then go on to say that; "Furthermore, this heiau appeared to the senses as having the mana of being a luakini heiau, one having set rituals and standards befitting a chief named Haki, probably the caretaker of Kaho'olawe for a more powerful chief residing in the Kihei district on the neighboring island of Maui." (Protect Kaho'olawe 'Ohana 1980:D-20-21) The report fails to cite a source for its reference to "a chief named Haki", and no mention of a chief by that name can be found elsewhere in the known written or oral literature.

84.) *Paniolo* is the Hawaiian word for cowboy. Cattle were introduced to these islands as early as the 1790s by Captain George Vancouver, who gave a pair as a gift to Kamehameha I. [?] Kamehameha subsequently placed a *kapu* on the animals, forbidding anyone from killing them. As a result of this restriction, their numbers multiplied, and it was not long before huge herds of feral cattle were playing havoc with Hawaiian agricultural fields, as well as with the islands' fragile native forest. Eventually, Mexican cowboys were brought to the islands to help round up and control the wild herds. These Spanish speaking cowboys were known as *espanol*, a word which the Hawaiians localized to *paniolo*.

Years after her time on Kaho'olawe, Ashdown wrote in a letter to Mary Pukui that; "Of course, while we worked we learned names of places, history and legends from our Hawaiian cowboys and others." (from a letter to Mary Pukui dated 27 March 1960, a copy of which is held among the Inez Ashdown papers at the Maui Historical Society)

85.) In her later years, Inez Ashdown wrote down a number of traditions regarding the island of Kaho'olawe, many of which are mentioned nowhere else in the historic literature. Some of these traditions she attributes directly to a specific source, such as to Jack Aina, who was employed as foreman of the Kaho'olawe Ranch from about 1917 to 1922. Others she simply presents without saying when she first heard them or who she heard them from. The numerous inconsistencies and contradictions present within many of these undocumented traditions cannot help but cast a shadow on their authenticity.

Much of the material quoted in this report has been taken from Inez Ashdown's letters and private papers presently held at the Maui Historical Society and in the Archives of the Bishop Museum. It must be remembered that most of these papers take the form of personal letters, and all were unpublished. When reading through, or quoting from them, one must take into consideration the possibility that since they were not meant for publication, Ashdown may not have rigidly screened the information contained within them to separate what she knew was truly traditional from her own

more modern speculations. This is especially true for her notes on place names and their meanings.

In their introduction to the Ashdown papers, the Maui Historical Society suggests that; "The accompanying material should be used with a measure of caution for several reasons. The Ashdown papers have been only roughly sorted, based on her personal file system, and there remains much to be done by way of correcting present findings, cross referencing and evaluation of the material that ranges from well prepared publications to the roughest of manuscript notes. There exist, also, numerous discrepancies between her material and that of other "authorities" that have not yet been evaluated and, if possible, eliminated. This is particularly true in the areas of the meaning of words and place names, genealogical lines, and legendary and religious material."

In going over Ashdown's notes, the author of this paper has discovered not only internal discrepancies between traditions which are mentioned more than once, but also blatant errors in the dates, places and details of known historical events. These errors seemed to increase as Ashdown grew older, and are more noticeable in her later correspondence.

In at least one instance, Ashdown has created her own "modern myth", entwining the names of legendary figures associated with Kaho'olawe into an allegory of the island's recent history. This allegory is presented in the form of a legend. Though it is doubtful that Ashdown ever intended this story to be taken as a traditional narrative, someone unfamiliar with the original stories from which these characters are borrowed might easily accept Ashdown's newly created legend at its face value.

Ashdown considered herself as a writer as well as a historian, and she had a tendency at times to sacrifice historic accuracy from literary effect, a tendency which can be seen quite clearly in her book Recollections of Kaho'olawe (Ashdown 1979). Given her penchant for bending history in the cause of a good story, it seems imperative that anyone reading Ashdown's notes should exercise extreme caution in drawing conclusions based solely on the information contained within them.

86.) This quote is taken from page 3 of Ashdown's letter to E.H. Bryan dated June, 1976, on file at the Maui Historical Society[?]. Later on in that same letter, Ashdown elaborates on this by saying; "Back to Hakioawa, one of the "saints" or 'aumakua or "gods" to whom women prayed for the gift of children was named Hulu. He was an Akua Ka'ai [an image wrapped in kapa] to whom they prayed during the pains of childbirth. Mohai offerings {mohai means offering} such as Niu Owa [split coconut], pure-white tapa, all-white pig, and first-caught fish such as Kumu, were laid upon this altar of Hulu." Pukui and Elbert speak of Hulu as "An image wrapped in tapa (akua ka'ai) who assisted at childbirth"(Pukui &

Elbert 1971:385) In describing the religious ceremonies performed by the chiefly classes to secure offspring, David Malo makes mention of the *akua kaai*. In an attached note, Nathaniel Emerson remarked that; "The *akua kaai* was represented by a short staff, on top of which was carved a figure representing the deity. The lower end was sharp to facilitate its being driven into the ground. Hulu was the name of one of the *kaai* gods whose special function it was to assist at child-birth." (Malo 1951:139, note 4)

87.) This quote is from a letter entitled "For Annie Rogers from Inez Ashdown..Kaho'olawe", the first page of which seems to be missing. Ashdown notes that these were the, "Place names on Kahoolawe (according to list sent; plus what was taught to me from 1908 at Ulupalakua and 1916 by Eben Parker Low, Louis von Tempski and Jack Aina and other paniolo." A notation at the top states that these pages were, "Typed from photocopy of original manuscript written by Inez Ashdown, 1976. Copied precisely as written." A copy of this letter is on file at the Bishop Museum Archives.

In a 1977 letter to Captain C. Crockett who was then the Navy officer in charge of Kaho'olawe, Ashdown speaks of Hakioawa and mentions that; "The large heiau Mahina-heu for devotion and prayers also included praying for children and youth, health etc.. Mahina is the Moon, certainly, but it also is a "garden maker" etc.." It is not clear to which "heiau" she is referring in this instance. (this letter can be found among the Ashdown Papers in the files of the Hawaii State Historical Preservation Office; letter to Captain Crockett, dated 1977, page 5)

88.) Nor does she do so for any of the other traditions she relates concerning Hakioawa.

89.) Kamakau 1961:179.

90.) "The *luakini po'okanaka* were large heiaus and were called *'ohi'a ko* and *haku 'ohia*. They were built along the coast, in the interior of the land, and on the mountain sides. They were only for the paramount chief, the *ali'i nui*, of an island or district (*moku*). Other chiefs and *maka'ainana* could not build them; if they did, they were rebels." (Kamakau 1976:129) "Any chief below the king in rank was a liberty to construct a *mapele heiau*, an *unu o Lono*, or an *aka*, but not a *luakini*. The right to build a *luakini* belonged to the king alone." (Malo 1951:160)

91.) Kamakau noted that the "Waihau hale-o-Papa were also comfortable heiaus. They belonged to *pi'o* and *na'auipi'o* cheiffesses, and were for the good of the women and the children borne for the benefit of the land." (Kamakau 1976:129)

92.) Valeri 1985:234-339. This close relationship between the *luakini heiau* and the *hale o Papa* is also commented on by David Malo. (Malo 1951:162) Sir Peter Buck, an noted Polynesian anthropologist, working in the early years of this century, noted that; "A house named Hale o Papa (House of Papa) was built outside the temple [the *luakini heiau*] walls; it was here that the chieftainesses held their services. Papa was the mythical wife of Wakea and she was evidently adopted as a deity by members of her sex." (Buck 1964:521)

93.) The island of Kaho'olawe appears to have been too dry for *awa* to have been grown there, but it was brought over for use in ceremonies, as is attested to by the discovery of dried pieces of *awa* root at the shrine in Kamohio bay (Stokes 1913:I:16; see Appendix W).

In a letter to Jane Silverman dated 10/12/75 (also in the Maui Historical Society), Ashdown mentions that; "At Hakioawa by Lae Kukui & Kanapou side SE the Kahunas prayed the Pule Lelea [prayer] while the chiefs drink the *awa* & make offerings. The essence goes, lele, to the Akua. Among the her papers on file at the Bishop Museum is a letter entitled "For Annie Rogers from Inez Ashdown..Kaho'olawe", which includes the comment; "At Ha-ki o 'awa, at the big, important heiau and village there between Kana-pou and Lae Kukui, the teachers dwelt and performed temple ceremonies."

94.) This quote is taken from page 11 of "Historic Sites of the Lonely Isle" dated January, 1975, which can be found among the Ashdown Papers in the Maui Historical Society. Ashdown's brief mention of Ho'awa and her sufferings is the only reference we have of this incident, either in her own writings, or in those of anyone else familiar with the island and its traditions.

95.) Among the other probable religious sites lying within the valley of Hakioawa are a possible fishing and/or family shrine situated amid the house sites on the central ridge (Site 482, Feature B), and a small, but well preserved *ko'a* on the slopes just below Site 350 (Site 352). This *ko'a*, whose location provides it with a superb view of the bay, consists of a partially collapsed stone terrace almost buried under offerings of branch coral. An elongated, water worn stone, a possible *ku'ula*, remains standing upright at the lower edge of the platform. Tucked in against the bedrock at the rear of the structure, and partially buried by leaf litter, are at least eleven unworked cowrie shells. Cowrie shells of this size were valued by Hawaiian fishermen who used them as lures in fishing for octopus. These particular shells were probably left as offerings at the shrine.

In a small gulch just to the north of Hakioawa, standing on a rocky headland overlooking the beach, is another large, walled enclosure which appears to have been a possible *heiau*. Below it, on the edge of the sand, is a small *ko'a*. No traditions relating to these sites, or to the gulch itself,

have survived to us, nor do we know the true name of the gulch and its small bay, which are now referred to as Hakioawaiki. Hakioawaiki, or "little Hakioawa", is a modern name given to the bay by members of the 1976-80 archaeological field crew, and subsequently adopted and used by the Protect Kaho'olawe Ohana. The fact that Hakioawaiki is also the name of the 'ili, the land division, lying to the south of the 'ili of Hakioawa has resulted in more than a little confusion.

96.) A total of 139 volcanic glass dates were recovered from sites within Hakioawa during the 1976-80 survey. These dates range from 1310 ± 23 to 1736 ± 29 A.D.. All of the early, pre-1400 dates came from a test trench dug into Site 349, Feature D, a habitation terrace situated along the southern edge of the valley's central ridge. (National Register of Historic Places Inventory -- Nomination Form: Site 349)

97.) Hommon 1980:7:60-67. Using the data collected during the 1976-80 survey, Hommon estimated a population of about 132 individuals living within the valley of Hakioawa around the mid 17th century. (Hommon 1980:7:64) Given the limited amount of excavation undertaken during the survey, as well as the potential unreliability of volcanic glass dating estimates, and the possibility that additional, as yet undiscovered, settlement sites lie buried beneath the recently deposited alluvium on the valley floor, it seems far too premature to attempt to provide population figures for Hakioawa (or for any of the other valleys on Kaho'olawe) based on the presently available data.

98.) The earliest historical account we have of Hakioawa comes from Edward Perkins who, some time around January of 1850, undertook a treasure hunting expedition to Kaho'olawe in the company of a small group of companions. They came in search of a schooner carrying specie which had capsized off Lahaina and was believed to have drifted onto Kaho'olawe's rocky coast. The groups primary camp was at the, then uninhabited, bay of Hakioawa.

After scanning the island from Maui through telescopes, it was decided to procure a boat and search for the wreck. The small group of adventurers consisted of six haoles and "a stout young native named Makaoe, (sharp-eyes,) whose former residence on Kahulawe [Kaho'olawe] qualified him to act as pilot and guide". (Perkins 1854:159) The treasure hunters departed from Honuaua (most probably from Makena landing) in "a dilapidated whaleboat" and, skirting the southern edge of Molokini, made for Kaho'olawe's northeast coast.

"By Makaoe's direction the boat was headed for a small cove that formed an excellent boat harbor, and which is frequently resorted to by fishing canoes; as the surf was but trifling, we shot in through the narrow channel into still water, and a moment after hauled the boat up high and dry

upon the smooth sand beach. On either side our position was bounded by projecting spurs extending to the sea, and terminating in abrupt cliffs, while the level bottom intervening was but limited." (Perkins 1854:159-60)

Evidence that Perkins' "small cove" was most probably the bay of Hakioawa comes in the next segment of the account where he states that; "Our first care was to provide a suitable place to pass the night; some of us had already begun to cast inquiring glances towards the lee-side of a large cactus which grew near the shore, when Makaoe, the all provident, directed us to a cave close by, formed by shelving rocks, and crowned by the ruined walls of an old heiau (heathen temple,) frowning gloomily in the dusk of evening." (Perkins 1854:160)

Along the south slope of Hakioawa gulch, directly below the high stone walls of Site 350 and hidden by a kiawe thicket, lies a shallow cave, about 4 meters across and some 3 meters deep. Though this low overhang does not appear today as though it could provide shelter for seven men, the cave rests on the level of the present flood plain and its floor has probably been filled by recent deposits of alluvium.

The fact that water was, at least during the rainy season, readily available to Hakioawa's early inhabitants is illustrated by Perkins' comment that; "Makaoe disappeared with a calabash up one of the ravines for water." (Perkins 1854:160).

Perkins goes on in his account to describe his wanderings, undertaken that night and over the next few days. Many of his descriptions, of moonrise over Haleakala, or of his stroll along the rocky shore, will sound hauntingly familiar to anyone who has spent time in and around Hakioawa. It is often difficult to remember, in reading Perkins narrative, that he visited the island almost a century and a half ago.

Though Perkins party found some flotsam from the capsized schooner; a main boom, a hatch and a topgallant yard, they failed to discover the wreck itself. Abandoning their original purpose, they set out to make themselves better acquainted with the island. In his description of their various treks, Perkins notes the presence (even apparent abundance) of wild goats, which were in later years to infest the island and contribute greatly to the destruction of its native environment. His descriptions also provide an indication as to the type of vegetation present on Kaho'olawe at the time.

During their second day on the island, Perkins and some of his companions set off to reach "the mountain", by which he probably means Pu'u o Moaulanui. Although his account is difficult to follow and his distances of travel are greatly exaggerated, it appears from his descriptions that the party followed up the Hakioawa watershed as far as Lua Kealialuna.

"...we all started off, following up a ravine, until a dividing ridge formed a better path [the central Hakioawa

ridge?]. About a mile a mile and a half from camp, Waldron gave out and returned, and soon after Makaoe said something about eha kuu wawa (sore feet), so we dismissed him, while Bob and I plodded on together. Our path soon led through a broad valley of considerable extent, and down a cliff that formed its lower bound [the northern branch of Hakioawa gulch?], water was trickling as it oozed from the ground above, which had been thoroughly saturated by the recent rains. We continued up the valley, the soil of which was tolerably fertile; it bore traces of having once been extensively cultivated with sweet potatoes, and here we beheld fresh traces of wild hogs; it was by far the pleasantest portion of the island we had seen...half an hour afterwards, we saw the continuation of the broad Pacific, having travelled about four miles from our camp. We did not reach the highest point, but even here were seen remains of an extinct crater, perhaps a mile in diameter, circular in form, and of shallow depth [possibly Lua Kealia Luna]; it seemed like a basin formed by the sinking of the earth, without disturbing the growth of vegetation that covered it. On our return, we set fire to the dry grass, which, easily ignited, was consumed with great rapidity, for the wind by this time was blowing freshly; it continued to burn for nearly a week, and served as a beacon for vessels coming from Honolulu." (Perkins 1854:164-165)

In his description of what appears to be the northern branch of Hakioawa gulch, Perkins notes that; "it bore traces of having once been extensively cultivated with sweet potatoes" (Perkins 1854:164-165). That traces of sweet potato cultivation were still in evidence as late as 1850, suggests that much of the Hakioawa watershed may once have been utilized for agriculture.

Perkins and his companions decided to return to Maui that afternoon, despite the fact that the wind had picked up and the channel seas were rough. Their whaleboat was almost swamped in the process, and Perkins ends his account of their adventures by saying; "The experiences of that day furnished a salutary lesson to us all never to go wrecking without a conveyance suited to the emergency, lest the wrecker become the wrecked." (Perkins 1854:168).

99.) Hommon further postulates that this population decline occurred quite quickly, with the population of Hakioawa dropping from approximately 117 around 1700 to about 7 fifty years later. (Hommon 1980:7:65)

100.) Chapter I, pages 4-5 of this report provide a detailed explanation of the hydration rind dating technique used to determine the age of volcanic glass samples. It also gives an overview of the two calibration methods employed on Kaho'olawe, and the discrepancies between them.

101.) The 1982-83 archaeological data recovery project undertaken by Rosendahl and his team did not conduct any

excavations within the valley of Hakioawa. They did, however, sink a pair of test pits into two habitation sites in the small gulch immediately north of Hakioawa. These two structures (Site 569, Features B & C), lie just downslope from the large stone walled enclosure which may have once served as a *heiau*. Dates obtained from flakes of volcanic glass recovered during these excavations ranged from 1834±10 to 1871±10 A.D., suggesting that these structures were occupied well into the historic period. (Rosendahl 1987:V-25)

<u>Site</u>	<u>Feat.</u>	<u>Test Pit</u>	<u>Volcanic Glass Dates</u>	
569	B	TP-1	1834±10	1824-1844
	C	TP-1	1864±8	1856-1872
			1871±10	1861-1881
			1864±26	1838-1890

Although the single date recovered from Feature B seems reasonable, the dates from feature C appear to contradict what we know of the area from historical accounts. Given the very detailed nature of Perkins' description of his 1850 visit to Kaho'olawe, it seems likely that if anyone was at that time living in the small bay just north of Hakioawa, which was not more than a ten minute walk from Perkins' camp, he would have mentioned their presence. Indeed, some of Perkins' companions walked north along that stretch of the coast, but noted only "two fishing huts, tenanted, as they said, by old folks", half a day's distance from camp. (Perkins 1854:165)

This evidence seems to suggest that the hydration rind calibration rate used by Rosendahl is incorrect. In fact, it seems that the most appropriate age for these sites, based upon historical and artifactual information, lies somewhere between Hommon's original dates and Rosendahl's revised estimates. Hopefully, this controversy may be resolved at some time in the not too distant future.

The two radiocarbon dates Rosendahl's team obtained from Site 569, Features B & C gave such a wide range of possible ages that they are useless in resolving this controversy.

<u>Site</u>	<u>Feat.</u>	<u>Test Pit</u>	<u>Radiocarbon Dates</u>
569	B	TP-1	1770-1950+
	C	TP-1	1528-1555 1633-1704 1720-1820 1830-1879 1916-1955

102.) According to Hommon's scenario; "Just before the end of a severe drought large sections of the inland zone were cleared of vegetation cover in preparation for planting of

crops. Large areas of grassland including fallow fields, in the vicinity of the agricultural plots were accidentally burned. The drought was broken by a series of severe rainstorms. Substantial gullies were formed and grew rapidly in the cleared agricultural areas, and together with sheetwash, removed large amounts of soil from the lands in a relatively short period of time."(Hommon 1980:7:63) "The two gulches that empty into Hakioawa bay drain a large area of Kaho'olawe, including a major portion of inland subzone III-B [the slopes of Pu'u o Moaulanui]. The incidence and severity of flash floods channeled by these gulches probably increased in direct proportion to the inland degradation. Such floods would be expected to limit the productivity of bottom-land agricultural plots. The sediment in suspension and deposited at the mouths of the major Kaho'olawe gulches and along the shore where it is carried by currents reduces the ability of the near-shore environment to support useful resources includin [sic] molluscs and seaweed. It is evident that coral formations within this environmen [sic] have been killed by this sediment. A contributing factor to the near-abandonment of the Hakioawa settlement may have been the reduction of marine near-shore resources that resulted from the degradation of the terrestrial environment."(Hommon 1980:7:66)

Hommon based his hypothesis of prehistoric environmental degradation on the presence, within what he believed to be a layer of eroded produced alluvium (the Ahupu Formation), of volcanic glass flakes dating back as early as 1500.(Hommon 1980:7:63)

103.) Matthew Spriggs, in his article "Preceded by Forest; Changing Interpretations of Landscape Change on Kaho'olawe", refutes Hommon's argument, suggesting from his own examinations of the island's soils during the 1982-83 excavations that the majority of the environmental degradation which took place on Kaho'olawe occurred in the postcontact period as a result of the introduction of hoofed animals. His evidence for this was taken from test trenches dug into the soils of a number of the island's major bays (including Hakioawa) and dated by radiocarbon samples recovered from these various soil layers. Spriggs concludes that; "the dates strongly suggest that the Ahupu Formation is entirely historic in origin. It now seems likely that there are no prehistoric Hawaiian sites associated with this soil formation and that the stratigraphic positions of sites previously so assigned were misidentified. The hypothesis of massive landscape degradation in the prehistoric period as outlined by Hommon...appears thus to have been disproved. Although some accelerated erosion of topsoil undoubtedly did occur prehistorically, probably associated with vegetation clearance for agriculture, its effects appear to have been negligible."(Spriggs 1991:98)

104.) We do not possess an accurate record of the changes which took place in Kaho'olawe's resident population during the early years of the historic period. The island was well off the beaten track and not much visited by Europeans. In fact, the only Westerners to set foot on the island prior to 1850 appear to have been occasional shipwrecked sailors and a single European convict sentenced to confinement there (this convict was George Morgan who was exiled to Kaho'olawe in about 1848. He was removed from the island in 1852 after suffering a serious illness. For further information on him see Appendix E). Just about all of the population estimates for Kaho'olawe up until the mid-19th century were rough approximations, and many reflect the seasonable variability in the population which has been mentioned earlier. These historic population estimates are outlines in Appendix D.

105.) Although hostilities actually ceased with Kamehameha's conquest of Oahu in 1795, the entire chain did not come under his control until 1810, when Kaumualii, the *ali'i nui* of Kaua'i, peacefully surrendered his kingdom to Kamehameha's control. (Kuykendall 1938:50)

106.) Fornander 1969:II:156. Another source of information concerning this raid is Samuel Kamakau who, in his Ruling Chiefs of Hawaii, wrote: "Not many years later [than 1776], Ka-lani-'opu'u, perhaps nursing his hatred because of his former failure, prepared to ravage the land of Maui and, sailing to Kaupo, clubbed the commoners to death on all sides. Ka-hekili, hearing of this, prepared his men for war. Ka-lani-'opu'u set sail, touched at Kaho'olawe, and from there went on to Lahaina." (Kamakau, 1961:89) Kamakau goes on to describe Kalaniopuu's raid on Lanai by saying; "The whole island of Lanai was ravaged by the forces of Ka-lani-'opu'u." (Kamakau, 1961:90). Kalaniopu'u appears to have carried on this campaign, "for half a year, from 1778 to 1779". (Kamakau, 1961:91) It was during the early part of this campaign that Captain Cook's ships first ventured into Hawaiian waters.

107.) Kamakau 1961:188

108.) Vancouver 1798:II:180. Vancouver goes on to say that; "Such was the deplorable account he [Tomohomoho?] related of the distrefted fituation of Mowee [Maui], and the neighbouring iflands. This had hitherto fo humbled and broken the fpirit of the people, that little exertion had been made to reftore thefe iflands to their accuftomed fertility by cultivation; and they [Kamehameha's army?] were at that time under the neceffity of collecting provifions from Woahoo [Oahu] and Attowai [Kaua'i], for the maintenance of their numerous army on the eafternparts of the ifland." (Vancouver 1798:II:186)

109.) Kamakau 1961:198-9.

110.) As David Stannard explains in his recent book "Before the Horror", "It is known from the first credible missionary census, that the native population of Hawai'i was about 130,000 in the year 1832, and probably at least a few thousand more in 1828 - 50 years after Western contact. By 1878 - another 50 years later - that population (including almost 3,500 part Hawaiians) was officially listed at 47,508. Thus (and on this there is no disagreement), in roughly the second half-century following European contact, the disease-ridden Hawaiian population declined by almost two-thirds - to be more precise, by a ratio of about 2.8 to 1." (Stannard 1989:45-46)

111.) In a letter dated "Lahaina, Island of Maui Aug. 9th 1825", and addressed to the American Board of Commissioners for Foreign Missions in Boston, Reverend William Richards, then resident missionary at Lahaina, noted the importance of that mission station to the enlightenment of the inhabitants of the smaller outlying islands.

"The communications between the two last mentioned islands [Lana'i & Moloka'i] and Lahaina are frequent and even constant. There is scarcely a day but what canoes pass and repass. Almost the only communications is by canoe, though small vessels occasionally visit Molokai.

The inhabitants of these islands have very little communication with any other place except Lahaina, if therefore they are illuminated at all, they must receive their light from this station. Tahoorawe too, communicates with no other island but Maui though, there are few inhabitants there, and those mostly fishermen who are not permanent residents." (Missionary Herald June 1826:22:174-175)

112.) This pattern of population movement can be seen on a more personal scale in the writings of A.D. Kahalelio, an expert on Hawaiian fishing lore. His grandparents, Kahalelio tells us, "left Keoneoio, Honuaula, Maui, their birthplace five years after the Word of God had come to Hawaii and they made their home on this land of Lahaina, on the ahupuaa of Makila. It was because they were fishermen, and they traded and peddled fish for price; they gave fish in exchange for taro or pa'i-ai [hard poi] from the people of Lahaina." (Kahalelio 1902:30; April 4, 1902).

Kahalelio's father was later a fisherman for Hoapili, the governor of Maui, who had his residence at Lahaina. (Kahalelio 1902:12; March 7, 1902) It is probable that Kahalelio's family, since they originated from Honuaula, Maui, had relatives who were *kama'aina* of Kaho'olawe. Doubtlessly they had visited the island often, for as Kahalelio says; "The sea all around Kaho'olawe has been fished in by your writer with his parents and

grandparents." (Kahaulelio 1902:32; April 18, 1902, see Appendix L)

113.) In his 1858 report to R.C. Wyllie, who at that time held the lease to Kaho'olawe, William F. Allen mentioned that "I found on the Island about fifty Natives men, women and children, the men engaged in fishing which is very good there most of the year, as there are several kind which frequent the sea about the Island. These natives do not live here all the year, but are here most of the time except during the rainy season, their food (Poi) they bring from Maui after disposing of their Fish in Lahaina. There are Houses along the South West or Lahina side of the Island at three different locations about five miles apart." These settlements were most probably situated at the bays of Kuheia/Kaulana, Ahupu and Honokoa. (Allen's letter, dated 4/31/1858, is held as part of the R.C. Wyllie Private Collection at the Hawaii State Archives (Appendix R))

114.) The census of 1866 revealed a total of 5 households and 18 individuals resident on Kaho'olawe on the night of December 7, 1866. There were 11 males and 7 females, with at least one female per household. 7 of the island's 18 inhabitants were born on Kaho'olawe; 2 males and 1 female born before 1826, 2 males born between 1826 and 1851, and 2 males born after 1851. 2 of the 18 inhabitants were Americans who listed themselves as shepherds. Four of the adult male Hawaiians (all head of households) are noted as being "Hanalima" (manual laborers). The Hawaiians and Americans probably worked for E.H. Allen who had a sheep ranch on Kaho'olawe at that time.

16 of the 18 inhabitants were of Hawaiian descent, 2 of these were half-white & half-Hawaiian (apparently the offspring of one of the American shepherds and his Hawaiian wife). One married Hawaiian male over 40 years of age, who was born on the island and apparently had a son who was born there also, stated that he was a landowner. (the relevant pages of the 1866 census have been included as Appendix S of this report, as have pages from the Maui census which list individuals born on Kaho'olawe)

115.) One of these smaller settlements was located in the bay of Honokoa on the island's northwest coast. Here, in 1875, King David Kalakaua landed for a tour of Kaho'olawe. The King was accompanied on his visit by a reporter from the Hawaiian language newspaper "Ka Lahui Hawaii", whose account of the trip mentions at least one house still occupied in Honokoa. (Ka Lahui Hawaii 12/30/1875:4,c.2, a translation of this article is provided in Appendix U)

The reporter's description of the island's population at that time seems somewhat confused, for in one instance he mentions that: "There are 20,000 sheep, 10 horses, 6 native men, 2 white men, 2 full-Hawaiian women, 2 small children"

living in "4 houses". Further on he states that; "There are streams, springs and spring water, so that the family and the others are not inconvenienced - there are not more than 50 [inhabitants?], however, their food comes from another island." (Ka Lahui Hawaii 12/30/1875:4,c.2).

116.) Maui News 7/23/1910:1:c.5.

Chapter III

PU'U O MOAULANUI

"ONEHOW [Ni'ihau] and TOWROWA [Kaho'olawe], rather poor places, but celebrated for producing the largest and finest vegetables of all the group"

(Thomas James The Sandwich and Bonin Islands 1832:6)

When one views the island of Kaho'olawe from a distance, gazing upwards from the mottled green and gold of her sunburnt coasts to the red scabs of soilless hardpan which crust her upper slopes, it is difficult to imagine that anything more than a few thorny shrubs and coarse grasses could ever have grown on this nearly waterless island. Yet, botanical evidence suggests that before the coming of man, Kaho'olawe's uplands were blanketed by dryland forest.¹ This was not the dense and verdant jungle which usually comes to mind when one thinks of a native Hawaiian forest, but rather an open, almost savanna-like ecosystem of scattered native trees such as *wiliwili* and shrubs like *akoko*, underlain by a thick carpet of *pili* grass. This ecosystem was similar to that formerly found on the leeward coasts of all of the major islands in the chain.

Today, the soil which once supported this dryland forest has to a large extent disappeared. Over the last century, heavy winter rains have washed it downslope to clog valley bottoms and bloody the offshore waters. Harsh winds, sweeping around the slopes of Haleakala², have caught up the soil, lifting it in broad red banners far out over the sea.

The loss of this rich upland soil, so devastating to the island's ecosystem, appears to have taken place only relatively recently. As late as 1859, one visitor to the island, William Webster, observed that; "On the summit of the Island there is about four or five thousand acres of land where I should suppose from its appearance the feed was sufficiently green throughout the year to support sheep without water."³ By the 1850 much of the island's original

native forest had been cleared, but the soil remained, covered mostly by grass and low shrubs. Neither Webster's account, nor that of any other visitor to Kaho'olawe prior to the 1880s, makes mention of the stretches of barren hardpan which so characterize the island's upper slopes today.

Yet, within these early accounts we can recognize the seeds of an impending environmental disaster. In the writings of Edward Perkins, who visited the island in 1850, we find the first mention of goats being present on Kaho'olawe. These animals were introduced to the Hawaiian islands in 1778 by a well meaning Captain Cook⁴, who was unaware of the havoc these four legged lawnmowers would wreak on Hawaii's fragile native ecosystem. When goats first arrived on Kaho'olawe is uncertain⁵, but according to Perkins' description they were well established on the island by the mid 19th century. On his first foray across the island, Perkins noted that; "The air was charming; a light sea-breeze was fanning across the hills, where the shrill cries of the plover, as they winged their way to the more elevated regions, and the bleating of the wild goats, alone awoke the solitude."⁶

In a more telling description, Perkins noted the effect which goats had had on one element of the local flora. "At one place was passed what had once been a grove of akoko trees, but nothing now remained save an area covered with withered trunks and branches, bleached as white as skeletons in the sun, the bark having been stripped from them by the goats."⁷

The island's native vegetation possessed no natural defence against these hooped invaders, who trampled and cropped any hint of greenery until they laid bear the soil. In 1858 sheep were also introduced to Kaho'olawe, as part of the new leasee's plan to turn the island into a stock ranch. By 1875 the ranch boasted a total of 20,000 sheep.⁸ It is not long after this, however, that we come across the first mention of, "the soil from the upper part of the island being

blown away".⁹ By 1910 the active erosion of the island had grown so critical that the ranch lease was cancelled and Kaho'olawe was declared a Forest Reserve.¹⁰ Regretfully, reforestation efforts on Kaho'olawe never truly got off the ground, and by 1917 the island was once again up for lease, this time as a cattle ranch. The erosion continued.

It continues today, despite the fact that within the last few years the U.S. Navy has pretty much rid the island of goats. By now much of the island's upland slopes have been reduced to barren, featureless hardpan. Over the years an estimated two to four meters of topsoil have been blown or washed from Kaho'olawe's upper slopes.

Paradoxically, this erosion of Kaho'olawe's upland soils has revealed an intermediate phase in the vegetation history of the island. Scattered across the surface of the hardpan can be seen clusters of sun bleached shells, fragments of fire-cracked stone and flakes of shiny black basalt; the relics human activity. These concentrations of artifacts and midden once lay buried within the earth. When the surrounding soil was eroded away, they simply settling onto the hardpan, washing a little further downslope with each winter's rains.¹¹ To all intents and purposes, these "deflated" sites have been excavated by the elements, allowing archaeologists an effortless glimpse into an part of Kaho'olawe's past which might otherwise have gone undetected.

The island-wide archaeological survey of Kaho'olawe, undertaken between 1976 and 1980, located approximately 886 such activity areas concentrated within the island's eastern uplands.¹² The majority of these exposed sites lie on the slopes of Pu'u o Moaulanui¹³, the island's highest peak; a remnant of the shield dome volcano which originally formed Kaho'olawe.¹⁴

The presence within these sites of food remains, such as marine shells, mammal and bird bones, as well as flakes of basalt (debitage from the manufacture of stone tools) and the remnants of hearths and small *imu* (stone-lined earth ovens)

suggest that these midden and artifact scatters represent the remains of living areas once occupied by the island's original inhabitants.¹⁵ Their existence, however, here on the island's upland slopes, raises an important question. If, as we have said, the lifeblood of Kaho'olawe was the sea, then what could have lured her people to live, even for a short period, so far from the source of their survival?

The answer is food. It appears that in former times the slopes of Pu'u o Moaulanui were heavily cultivated. The sites lying exposed today on the hardpan are the remains of field houses occupied by the ancient inhabitants of Kaho'olawe who were involved in farming the island's upland slopes. It was they who cleared much of Kaho'olawe's native dryland forest, replacing it with cultivated fields.¹⁶

Not all of the island's native forest, however, was cleared by its early inhabitants. The presence within ancient fire hearths of charcoal from trees such as *wiliwili* and shrubs like *'aweoweo*¹⁷ suggests that pockets of dryland forest were retained and carefully husbanded to provide firewood and other resources.¹⁸

It is interesting to note that the majority of the occupation sites discovered in the eastern uplands lie upslope of the 25 inch rainfall isohyet. This area receives the greatest rainfall on the island, in excess of 25 inches a year compared to less than 10 inches for most of the coast.

The number and appearance of these upland scatters suggest that for the most part they served only as temporary campsites, occupied probably on a seasonal basis. It seems likely that the *kama'aina* of Kaho'olawe utilized these upland field areas in much the same way as the inhabitants of neighboring Lana'i, which shares a similar arid climate. The Reverend William Richards, who was one of the first Europeans to visit Lana'i, touring the island in 1834, wrote that; "Most of these people however, have two places of residence, and only spend a part of the year on the mountain where there [is] so great a sparsity of water."¹⁹

The question of when these features were occupied remains somewhat problematic, as it does with all of the archaeological sites on Kaho'olawe. Using the dating evidence recovered during the 1976-80 archaeological survey, Robert Hommon proposed that Kaho'olawe's uplands was first occupied some time around 1300 A.D.. Between 1400 and 1550 A.D., according to Hommon's model, a rapid increase took place in the use of the inland area. During this period much of the native dryland forest was cleared and replaced by agricultural fields. By the middle of the 16th century, however, this land clearance had destabilized the inland environment, resulting in the erosion of the island's upper slopes. Kaho'olawe's native farmers, having disrupted the natural balance, were forced to abandon their fields and return to the coast.²⁰ By the time of European contact, the upper slopes of Pu'u o Moaulanui were largely unoccupied. Hommon based this scenario on the range of dates recovered from samples of volcanic glass which had been collected off the surface of a number of upland sites.

In contrast to Hommon's hypothesis, Paul Rosendahl, relying on the findings of his own 1982-83 excavations, placed the occupation of these upland features much later. He has stated that; "It appears, based on the sample of sites examined in this study, that extensive agriculture, if there ever was such a thing on Kaho'olawe, did not begin until the mid- to late 1700s. Agricultural use of inland areas may have begun earlier, in the 1500s to 1600s, but it is likely that it was very small scale."²¹

The abandonment of the uplands, according to Rosendahl's model, would correspond with the general depopulation of the island which took place in the early years of the historic period. A difference of almost two hundred years exists between Hommon's dates and those of Rosendahl. The question of which, if either, of these two hypotheses is the most historically accurate, remains unresolved. It will continue

to be an open question until such time as we possess a reliable chronology for Kaho'olawe.

While archaeological studies have been able to provided us with a clear picture of the varied activities which were carried out at these upland agricultural sites, they have not been able to tell us the types of crops grown on the slopes of Moaulanui. For that we must turn to the historical record.²² Fortunately, there have come down to us a number of account, written by early visitors to the island, which describe the various cultivated plants grown in the uplands of Kaho'olawe in the early years of the 19th century. By that time the island's native population had been greatly reduced, and much of the island's upland field system had been abandoned. There survived, however, enough remnants of this former cultivation to provide us a feel for the range of crops which had once been planted on Kaho'olawe's upland slopes.

Probably our earliest reference to agriculture on island of Kaho'olawe comes from the Hawaiian chronicler David Malo who mentioned in his book Hawaiian Antiquities that; "Kahoolawe was made up of kula land [dry open country]²³, and the principal vegetable was the potato, besides which yam and sugar cane were produced, but no taro.²⁴

One of the first groups of Europeans to visit the island consisted of a handful of castaway sailors from the United States Exploring Expedition who were marooned on the western end of Kaho'olawe in 1841. In hiking across the island in search of help, Lieutenant Budd, the leader of the party, observed that; "On the north side of the island, there is a better soil, of a reddish colour, which is in places susceptible to cultivation."²⁵ Captain Wilkes, the commander of the expedition, who wrote up the official account of the voyage, remarked in his journal that; "The only article produced on the island is the sweet-potato, and but a small quantity of these."²⁶

Indeed, the *uala*, or sweet potato, appears to have been the island's staple crop.²⁷ Contrary to Wilkes' pronouncement, however, it was far from being the only dryland cultigens grown on Kaho'olawe. Paul Nahaolelua, the Governor of Maui, who visited Kaho'olawe in 1857 at the request of Lot Kamehameha, mentions in his report that; "mauka in the mountains we saw a sugar-cane patch in a gulch, and we measured some of the red sugar-cane ["ko ula"] and the height was 6 1/2 feet, and was 5 3/4 inches in circumference. The old residents said that sweet potatoes ["Uala maoli"] will grow on the mountain if planted at the right time, they said that the potatoes were good and the tubers were large."²⁸

A year later, when William Allen surveyed the island on behalf of its new leasee, R.C. Wyllie (who also happened to be the Chancellor of the Kingdom) he noted that; "In the centre of the Northern part is a mound which is the highest point of land on the Island, about this the soil is very good being a sort of loom [loam], here the natives have some Sugar Cane growing; Mellons, potatoes and pumpkins grow well here."²⁹

When David Malo stated that no taro was grown on Kaho'olawe, he was probably referring specifically to wetland taro, the staple crop of most of Hawai'i's windward valleys. It was this form of *kalo*³⁰, cultivated in flooded terraces called *lo'i*, which we most commonly associate with ancient Hawaiian agriculture. There were, however, strains of dryland taro which did not require irrigation, and which could survive on the islands' drier leeward slopes.³¹ Though dryland taro was probably not grown extensively on Kaho'olawe, we do possess one reference which indicates that it was cultivated on the island. Charles Forbes, a botanist with the Bishop Museum's 1913 expedition, recorded that; "In former times dry land taro, sweet potatoes and bananas were cultivated on the island, according to an old native."³²

By combining the information contained within these various early accounts, we can begin to develop a list of the range of crops probably grown on Kaho'olawe during the prehistoric period. The only traditional food crops we know to have been cultivated on the slopes of Pu'u o Moaulanui were *uala maoli*, a variety of sweet potato (*Ipomea batatas*) and *ko ula*, the red sugar cane (*Saccharum officinarum*). Other Hawaiian cultigens such as *uhi*, a type of yam (*Dioscorea alata*), dryland *kalo* (*Colocasia esculenta*) and *mai'a*, bananas (*Musa* spp.) are known to have been grown somewhere on Kaho'olawe, though where is not altogether certain. It seems likely, however, that at least the first two of these crops were planted in the uplands, as well as within the island's windward valleys. *Ipu 'awa'awa*, the calabash gourd vine (*Lageneria siceraria*), *ki*, more commonly known by its Tahitian name *ti* (*Cordyline termunalis*) and *laau kau*³³ are recorded as having been grown at housesites along the coast. The *ipu* vine, which thrives in dry conditions, could also conceivably have been cultivated on the slopes of Pu'u o Moaulanui.³⁴

The main problem with sustained agriculture in the uplands of Kaho'olawe, not only for the plants themselves, but for the people who tended them, was water. The rains which fell on the slopes of Pu'u o Moaulanui were probably sufficient to support fields of *uala* and other dryland crops without the need for any form of irrigation.³⁵ They would hardly have been enough, however, to sustain the needs of the farmers who dwelt in the uplands for at least a portion of each year.

For an explanation of how the ancient Hawaiians who once occupied the sites we now see scattered across Kaho'olawe's hardpan managed to survive in this marginal environment, we must once again turn to descriptions of life on neighboring Lana'i. Being a slightly larger island than Kaho'olawe, with more land and resources, Lana'i was able to sustain a small native population throughout the historic period. As a

result, we possess for Lana'i what we do not have for Kaho'olawe; written accounts of how its inhabitants coped with and adapted to the island's arid environment.

Among his observations, recorded during a tour through the uplands of Lana'i in 1834, Reverend William Richards noted that; "There are many people who make no use of water for washing, neither themselves or their clothes, except the dew or water on the grass and shrubs. And sometimes there is so little of this that they resort to the juice of the succulent plants which they collect."³⁶ Further on in his account, Richards remarks that;

At present there is considerable verdure, there having recently been more rain than usual. But there are no springs of water, and the people suffer much on this account. They wash their hands and food in the dews, and bring the water which they drink from a distance, where it is caught during the rains in a pit prepared for the purpose.³⁷

Kenneth Emory, who conducted archaeological studies on Lana'i in the early 1920s, also remarked on the various strategies developed by the native Hawaiians of that island to help them survive in areas of low rainfall.

The present natives say that in the days before sheep, goats, cattle and horses were grazing on the plateau lands, dew could be collected from the thick shrubbery by whipping the moisture into large bowls or squeezing the dripping bush-tops into the vessels. Oiled tapa was also spread on the ground to collect the dew. Water accumulating in natural depressions in rock or in cup marks as husbanded carefully."³⁸

Kaho'olawe's three major craters; Lua Moaula³⁹, Lua Kealia Luna and Lua Kealia Lalo⁴⁰ are known, in historic times, to have acted as natural reservoirs, holding standing water throughout much of the rainy season.⁴¹ It seems reasonable to assume that these water catchments operated in much the same manner during the prehistoric period, and were probably utilized by the ancient Hawaiians dwelling near to

them. Thus, it appears that a combination of sources; water standing in craters, dew gathered from the grass and brackish water brought from distant wells, helped to sustain Kaho'olawe's upland population in its struggle to survive and draw sustenance from the land.

No direct ethnographic accounts exist describing what life was like for those *kama'aina* living and working in the uplands of Kaho'olawe during the pre-contact period. Yet, from surviving descriptions of other native communities dwelling in similarly marginal environments elsewhere in the island chain, we can begin to construct a picture of how the people of Kaho'olawe created a life for themselves here on the slopes of Pu'u o Moaulanui. Reverend William Richards, writing again of Lana'i, could almost be speaking of Kaho'olawe when he writes;

Most of the people live near the shore for the purpose of taking fish, in which the shores of Lanai abound, and a considerable portion of their vegetable food they receive from Lahaina, in barter for fish. There is however one inland plantation of some extent, which furnishes considerable food. It is watered by the mist or light rain which falls during the night in sufficient quantities for the growth of potatoes and in wet seasons some upland-taro is raised. There are few people that reside at that place constantly, but considerable number who reside generally on the shore, go up & spend a month or two at a time, so as to keep their land under cultivation, and then return again to the sea side where they can have abundance of fish, and water too, such as it is, for there is a plenty of that which is brackish.⁴²

Notes

1.) The suggestion that some sort of dryland forest once existed on Kaho'olawe was put forward as early as 1913 by Charles Forbes, a botanist who accompanied the Bishop Museum's 1913 expedition to the island. During his surveys, Forbes found what he felt were remnants of that original forest. As he put it; "A few wiliwili trees (*Erythrina monosperma*) occurring here and there, mainly on the sides of gulches, are the sole survivals of what native forest might have existed on the island in former times." (Forbes 1913:4)

Archaeological excavations conducted between 1982 and 1983 unearthed further evidence of this early forest. The shells of land snails recovered from excavations undertaken in the island's interior were found to belong to native species which are known to have inhabited dryland forests. In two cases these snail shells were discovered in close association with evidence of human activity, suggesting that at least pockets of this forest existed during the early Hawaiian occupation of the island. (Christensen 1987:B-2 thru B-6)

Some hints as to the types of plants which made up Kaho'olawe's dryland forest have been provided by an analysis of the charcoal recovered from ancient fireplaces unearthed during the 1982-83 excavations. A total of fifteen native taxa were identified, including specimens of *wiliwili* (*Erythrina sandwicensis*), 'akoko (*Euphorbia* spp.) and 'aweoweo (*Chenopodium oahuense*). (Murakami 1987:H-13) In addition to these dryland plant species, analysis revealed the presence of charcoal from the Polynesian introduced *kukui* (*Aleurites moluccana*) and the native *koa* (*Acacia koa*), both of which require a much more moist growing environment than that found on Kaho'olawe. Since both of these woods were used quite extensively by the ancient Hawaiian, *kukui* for net floats and *koa* for canoes, paddles, houseposts and bowls, it is likely that these charcoal fragments represent the remains of discarded artifacts (broken paddles, etc.) brought over originally from other islands. (Murakami 1987:H-8)

It is also interesting to note that fragments of charcoal from pine (*Pinus* sp.), oak (*Quercus* sp.) and redwood (*Sequoia* sp.) trees were found in these ancient hearths. (Murakami 1987:H-12) These exotic species probably found their way to the island as pieces of driftwood, which were collected of the strand and used as firewood by Kaho'olawe's indigenous inhabitants.

A number of carbonized seeds were also recovered from the island's prehistoric firepits. These belonged, for the most part, to species of native shrubs and grasses. (Allen 1987:A-9 thru A-16)

Early historical accounts of the island also provide some clue as to the types of indigenous plants which formerly grew on Kaho'olawe. A list of the native plants seen by early visitors to Kaho'olawe is included in Appendix I.

Pollen analysis presently being undertaken by International Archaeological Research Institute Inc. (the results of which will be published in association with this report) should provide us with an even clearer picture of Kaho'olawe's vegetational history. (Athens, Ward & Welch 1992)

2.) Haleakala, "house of the sun", is the dormant volcanic cone which forms the highest point on the neighboring island of Maui. This peak stands to windward of Kaho'olawe, blocking the moist trades which might otherwise bring rain to the island. Though the slopes of Haleakala steal the life giving rains meant for Kaho'olawe, they do not seem to diminish the force of the winds, which sweep the upper slopes of the island with great violence.

3.) In 1859, William Webster, the King's land agent, was contracted to undertake a survey of Kaho'olawe for R.C. Wyllie who had recently leased the island for sheep ranching. (Webster's letter to Wyllie, dated June 2, 1859, reporting the results of his survey - and from which this quote has been taken - can be found in the R.C. Wyllie Private Collection at the Hawaii State Archives)

Webster's comments are supported by those of Paul Nahaolelua and Ioane Richardson, who had surveyed the island a year before on behalf of Lot Kamehameha. In their report they mentioned; "about three thousand acres of good land, mauka in the mountain which we saw when we made the inspection." (Nahaolelua and Richard's letter to Lot Kamehameha, dated December 7th, 1857 is held in the Interior Department Land File at the Hawaii State Archives. A translation of this letter, done by F.H. Hart, is also on file there. (Appendix Q))

4.) "Captain Cook introduced the first goats in these islands, leaving on the island of Niihau one ram and two ewes, and a pair of pigs of English breed." (Thrum 1908:128)

5.) The Sunday Advertiser of January 14th, 1912, in a feature story on Kaho'olawe, mentions that; "It is stated that a large part of the island's present troubles may be said to have had their beginning 'way back in Vancouver's time, during the second visit to these islands of that doughty Britisher; when he made a present of a bull and a cow to Kamehameha, and presents of goats to a chief on the Maui coast. Later, it is asserted, this same chief turned some of his goats loose on Kahoolawe with the hope that they would increase and multiply." (The Sunday Advertiser 1/14/1912:Feature Section:1: c.1-6)

6.) Perkins 1854:162.

7.) Perkins 1854:163.

- 8.) Ka Lahui Hawaii 12/30/1875:4:c.2. This may be an overestimation for, although The Hawaiian Kingdom Statistical and Commercial Directory of 1880 states that in 1876 there were 16,000 sheep on Kaho'olawe; William Cummings, who took over the lease in 1881, reported that the island contained, "some 2,000 goats and 1,000 sheep". (Hawaiian Gazette 8/17/1881:3:c.2) Either way, the hoofed population of Kaho'olawe was far greater than the island's natural environment could adequately support. Matthew Spriggs, in his article "Preceded by Forest", provides a list of the number of hoofed animals; goats, sheep, horses, cattle, recorded as having been present on Kaho'olawe in the years between 1850 and 1918. (Spriggs 1991:76-77) Hardy Spoehr, in his "Kaho'olawe's Forest Reserve Period" (a study which will be published in association with this report) provides a similar census of the island's hoofed population. (Spoehr 1992:4)
- 9.) Hawaiian Gazette 8/17/1881:3:c.2.
- 10.) Spoehr provides a detailed account of this process in his "Kaho'olawe's Forest Reserve Period". (Spoehr 1992:9-11)
- 11.) In some cases the existence of a stray kiawe tree growing atop the site has helped to preserve it. In such cases one can see shells and stones slowly being eroded out of the edges of an ever shrinking soil hummock.
- 12.) The earliest mention we have of a name for this hill is among the place names added to an 1886 government survey map of Kaho'olawe, apparently by someone with the initials "L.M.Z." of Lahaina, Maui. On this map, the hill is referred to as "Hanaula or Moaula". (the original of this map is on file in the Hawaii State Survey Office, Reg. 1272, 4-20)
The fact that this promontory appears to bear the same name as a nearby cindercone, has caused a great deal of confusion and led to the suggestion that the terms Pu'u o Moaulanui (for the hill) and Pu'u o Moaulaiki (for the cindercone) be used to distinguish the two peaks.
- 13.) Stearns 1940:143-147.
- 14.) Hommon 1980:44A:Table 1.
- 15.) At present we possess only a single brief mention of these upland dwelling sites in the various oral traditions concerning the island. In recalling what she heard from the paniolo Jack Aina, a long time ranch-hand on Kaho'olawe, Inez Ashdown states that; "the women had that "platform" in the lua edge where they pounded tapa there in that village area.." (this quote is taken from a sheaf of papers entitled "For Annie Rogers from Inez Ashdown..Kaho'olawe", presently held at the Archives of the Bishop Museum) Ashdown's

reference to the "lua edge" suggests that she is talking about the lua (crater) of Lua Moaula.

A few of the inland sites located during the 1976-80 survey have been tentatively identified as shrines, though the purpose of these possible religious structures is unknown. Their identification was based largely on the presence of branch coral. One site in particular (Site 102), situated just below the lip of the crater, is quite impressive, consisting of what appears to have been a stone-faced platform paved with water worn pebbles (*ili*). Since there are no permanent streams on the island, these *ili* must have been brought up all the way from the coast. Scattered around this site, which survives in a remnant soil hummock, are marine shells and flakes of basalt. What purpose sites such as this one served is unknown. Being so far from the coast, it seems unlikely they were fishing *ko'a*, unless they were somehow used as navigational aids. They may possibly be agricultural shrines, or, as has also been suggested, birdhunter shrines.

16.) In many inland agricultural areas throughout the Hawaiian islands evidence of ancient agriculture survives in the form of stone walls and alignments which served as field boundary and retaining walls. Such structures were also used to concentrate loose stone away from planting areas. The remains of such features are not present on the upper slopes of Kaho'olawe. The absence of stone walls or alignments is probably due to the gentle slope which did not require terracing, and the paucity of naturally occurring stone.

17.) Murakami 1987:H-8

18.) Many native dryland plants are known to have been utilized by the ancient Hawaiians for their medicinal properties, and it is reasonable to assume that they were used in this way by the native communities living on Kaho'olawe. In her article "Kahoolawe Archaeobotanical Materials", Melinda Allen describes the various native uses of the plants whose remains have been recovered from archaeological sites on Kaho'olawe. (Allen 1987)

19.) In constructing his model of Kaho'olawe's population growth and settlement pattern, archaeologist Robert Hommon expressed the opinion that; "If it were not for the decline of coastal population, it might be suggested that the inland activity areas were occupied intermittently by residents of coastal settlements who visited the inland zone to tend crops and for other purposes. The present evidence, however, shows that the reduction of population in one zone was paralleled by a growth of population in another." (Hommon 1980:7:57) For this reason, Hommon believed that the majority of upland sites were sites of permanent habitation. The evidence Hommon speaks of is the set of volcanic glass dates recovered from these upland sites during the 1976-80 survey. (Hommon

1980:7:61) "Many of the erosionally lagged activity areas in the inland zone have the appearance of having been short-lived campsites. The basaltic glass evidence indicates, however, that their average duration was almost equal to that of features in the coastal zone." (Hommon 1980:7:57)

As a result of his 1982-83 excavations (which included investigations at nine upland sites), Paul Rosendahl concluded that, "most inland sites appear to represent temporary to extended-use sites recurrently occupied by a coastally-based resident population." (Rosendahl 1987:VII-1). This contradicts Hommon's model and seems to follow more closely the population movements recorded historically by Richards. Since both Hommon's and Rosendahl's arguments are based largely upon volcanic glass dates, which are now in question, it seems safest at this point to reserve judgement as to which model of inland settlement; the seasonal model described by Richards, or Hommon's distinct population model, is more appropriate in describing the type of occupation which took place at the majority of Kaho'olawe's inland sites. It seems likely that both types of settlement occurred, with some inland sites being occupied year round, while others (probably the majority) were visited only seasonally.

The possibility that at least some permanent occupation of this upland zone did take place is suggested by the presence, in a few of these upland sites, of artifacts related to fishing. During the 1976-80 survey, a total of 63 cowrie shell octopus lures were recorded at 47 inland features and 15 stone net and line sinkers were found at 14 inland features. (this information was taken from the list of artifacts collected by the 1976-80 survey, all of which are now housed at the Maui Historical Society) Hommon suggests that; "It is very probable that these items belonged to residents of the inland zone, since there is no apparent reason that a resident of the coastal zone would carry an item useful only in marine exploitation to the interior, much less leave it there. It seems to follow then that at least some of the residents of the inland zone who were primarily farmers did not depend entirely on exchange with the residents of the coastal zone as the exclusive source of marine products." (Hommon 1980:7:59)

20.) "It appears that the productivity of the inland agricultural lands were severely curtailed during phase III [1550-1650] by the affects of erosion and deposition. It is suggested that once the erosion had begun, gullying and sheetwash continued to reduce the vegetation cover, which in turn made more land vulnerable to further erosion. The rate at which the ground water was recharged was reduced as the tendency for rain water to run off the land rather than soak in was increased. The lowered water table in turn reduced the ability of the land to sustain vegetation." (Hommon 1980:7:64)

- 21.) Rosendahl 1987:VI-14 & 15.
- 22.) The agricultural potential of Kaho'olawe seems to have been recognized as early as the island's first sighting by Europeans. Though most of Captain Cook's crew comment in their journals on the desolate nature of the island, John Law described her as, "a Small Flat Isle called Kah-how, row-he which Looks rather Barren - like Oneehow - tho' probably a good Yam Island-". (Law 1779:unpaged)
- 23.) Pukui and Elbert define the word *kula* as meaning "Plain, field, open country, pasture. An act of 1884 distinguished dry or *kula* land from wet or taro land." (Pukui & Elbert 1971:178)
- 24.) Malo 1971:206. Although Malo's book was translated and edited in 1898, his original manuscript was probably written some time around 1840.
- 25.) Wilkes 1845:IV:245.
- 26.) Wilkes 1845:IV:245.
- 27.) A recent, and as yet unpublished, analysis of fragments of charcoal excavated from prehistoric fire hearths on Kaho'olawe, has revealed that many of these fragments consist of pieces of charred sweet potato tuber. (Graves, pers. comm.) The results of this study provide additional evidence to suggest that *uala* was the staple crop of the island's early inhabitants. Samuel Kamakau, in his The Works of the People of Old, provides a detailed description of the labor involved in cultivating sweet potatoes in dryland areas. (Kamakau 1976:25-31)
- 28.) Nahaolelua's report to Lot Kamehameha is contained in a letter dated December 7th, 1857 which can be found among the papers of the Interior Department Land File, presently held at the Hawaii State Archives. The letter, originally in Hawaiian, has been translated into English by F.H. Hart. (see Appendix Q)
- 29.) The survey report which William Allen submitted following his 1858 visit to Kaho'olawe is also on file in the Hawaii State Archives; in this case in the R.C. Wyllie Private Collection. The report is dated May 31st, 1858. (see Appendix R)
- 30.) The word taro, like the plant itself, appears to have been introduced to Hawai'i from the islands of southern Polynesian. Since, in written Hawaiian, the Tahitian "t" becomes a "k" and "r" becomes an "l", the southern Polynesian taro is rendered in Hawaiian as *kalo*.

31.) The upper slopes of Pu'u o Moaulanui receive just enough moisture to support this dryland form of taro.

32.) Forbes 1913:86. It is interesting to note that among the hundreds of ancient artifacts collected from Kaho'olawe, there is not a single poi pounder (the stone pestle used to mash the root of the *kalo* into a sticky paste known as *poi*, which was a staple of the Hawaiian diet). The absence of these implements suggests that very little taro was grown on the island.

33.) This plant appears to have been a tree or shrub, for the Hawaiian word *la'au* means "Tree, plant, wood, timber" (Pukui & Elbert 1971:174). The plants English name is not known.

34.) Fragments of carbonized fruit rind and two possible seeds of the *ipu* (*Lagenaria siceraria*) have been recovered from excavated fire hearths situated in the island's eastern uplands. (Allen 1987:A-11)

For a full listing of the Hawaiian cultigens recorded historically from Kaho'olawe, see Appendix K. Matthew Spriggs also provides a good review of agriculture on Kaho'olawe in his 1991 article "Preceded by Forest". (Spriggs 1991:105-108)

35.) Since there were probably never any permanent streams on Kaho'olawe, there was really no place that the water for such an irrigation system could have come from.

36.) Missionary Letters VI:1646.

37.) Missionary Letters VI:1646.

38.) Emory 1969:46.

39.) The earliest reference we have to the caldera of Pu'u o Moaulanui is from a map of Kaho'olawe drawn some time around 1889 (Doc. 1126 in the Hawaii State Survey Office), which refers to it as "Moaula pit (lua)". Since this is, at present, the oldest name we possess for the crater, it has been tentatively accepted as the most traditional. For the purposes of this report, therefore, the caldera is referred to as Lua Moaula.

At some time after this map was produced, most probably during the ranching period, the crater came to be known as Lua Makika; literally "mosquito pit". (Pukui, Elbert & Mookini 1974:135) This is the name by which it is most commonly referred to today.

The standing water which formerly covered the floor of the crater during the rainy season most probably served as a breeding ground for the mosquitoes which gave the crater its name. Inez Ashdown remarks that; "When the rain water was deep and stayed a long time the Lua Makika (Mosquito Hole,

literally) lived up to these names." (this quote is taken from page 7 of a 1977 letter to Capt. Crockett, a copy of which is presently held in the files of the Hawaii State Historical Preservation Office) Mosquitoes are not native to the Hawaiian islands, but were introduced some time early in the post-contact period (tradition has it that a visiting whaling captain, angered that the newly arrived missionaries had forbidden women from swimming out to "greet" incoming ships, purposely poured a barrel of water infested with mosquito larva into a local pond). It therefore seems reasonable to suggest that the name Lua Makika is of historical origin.

A series of maps detailing the birth and geologic growth of Kaho'olawe, drawn by Harold Stearns and included in his book Geology and Ground-Water Resources of Lanai and Kaho'olawe, Hawaii, reveal the primary role that the summit crater of Lua Moaula played in the formation of the island. (Stearns 1940:144-6:Fig.30-34).

40.) Pukui, Elbert and Mookini have rendered the translation of Lua Kealia Luna (which they break down as "Lua-ke-alia Luna") as "upper pit [of] the salt encrustation." (Pukui, Elbert & Mookini 1974:135) An alternative translation is "the upper brackish [water] pit". Lalo simply means lower, and thus Lua Kealia Lalo might be translated as the "lower pit [of] the salt encrustation" (Pukui, Elbert & Mookini 1974:135), or "the lower brackish [water] pit".

41.) Before they became filled in with sediment and overgrown with kiawe trees, these three craters appear to have served as natural water catchments. As early as 1859, William Webster "...found water in one place & this was in an old crater about three miles from the south end of the Island. It stands in the bottom of the crater in a shallow pool, very muddy & red & I believe dries up in the autumn." (this quote is taken from Webster's letter of June 2, 1859 in the R.C. Wyllie Private Collection of the Hawaii State Archives) Webster's description appears to refer to Lua Kealia Lalo.

Harold Stearns, who visited Kaho'olawe in 1939 to study the island's geology, reported that; "Water a few feet deep stands for part of the year in the craters of Kealialalo and Kealialuna. The latter has a dam a few feet high at the outlet of the depression. Both will hold water for six months or more, according to the frequency of the rains. At one time it was planned to build collection ditches and store additional water in Kealialalo, but the plan was abandoned because the depression would have filled to rapidly with silt. (Stearns 1940:130) A map of this planned ditch can be found in the Hawaii State Survey Office (SF. 11,526).

Additional historic accounts which make mention of standing water having been found in these craters are included in Appendix J.

42.) Missionary Letters VI:1644-45.

Chapter IV

KALUA O KAMOHOALII

*"the touring party made for the Kahoolawe point,
to pay their respects to the shark-god Kamohoalii."*

(Thomas Thrum More Hawaiian
Folk Tales 1923:293)

When the fire goddess Pele left her homeland in distant Kahiki and sailed forth to find a new dwelling place in the islands far to the north, it was her elder brother Kamohoali'i who guided the canoe Honuaiakea which bore her across the swells. It he who worked the great steering paddle, following the course which the stars plotted across the heavens, onward to the cloud crowned peaks of these islands we call Hawai'i.¹

Today, Pele remains one of the most well known of the ancient Hawaiian gods. The frequent eruptions of her fiery home provide a constant reminder of her presence. Her brother Kamohoali'i, however, has been all but forgotten.

In earlier days Kamohoali'i was the most renowned and revered of the 'aumakua mano [?], the ancestral shark gods.² Some of the traditions relating to Kamohoali'i were set down in the late 19th century by Joseph Emerson, the brother of the well known scholar Nathaniel Emerson, and himself a collector of Hawaiian antiquities and lore. Emerson was born in Hawaii of missionary parents and spoke fluent Hawaiian. His job as surveyor for the government allowed him the opportunity to visit many outdistricts where life had changed but little since ancient times, and to speak with older Hawaiians who still remembered the traditions of the past. In his article on "The Lesser Hawaiian Gods", Emerson writes;

Second to him [Kuhaimoana, another shark deity] in size and power was the shark called Kamohoalii, older brother of the goddess Pele. Like many of the other shark-gods, he was able at pleasure to assume the human form. In that form he dwelt in profound solitude in a most sacred spot called the *Pali Kapu o Kamohoalii* [the sacred precipice of Kamohoalii], overlooking the fires of the volcano

of Mokuaweoweo (The summit crater of Mauna Loa, on the Island of Hawaii.). Another *Pali Kapu o Kamohoalii*, with a like tradition, is similarly situated with reference to the crater of Kilauea.³ Even Pele, fiercest of gods, dared not allow the smoke from her furnaces to trespass on the awful sanctity of her brother's abode. He was also said to make his home in the highest cone in the crater of Haleakala.⁴ From time to time he walked among men, when he claimed the well-known prerogative of an Hawaiian god to discard his *malo*. In his shark form he is still said to roam at large in the deep waters about the island of Maui, and is claimed by many as their *aumakua*.⁵

The traditional belief that Kamohoalii'i frequented "the deep waters about the island of Maui" continued well into the historic period. The survival of a Hawaiian woman cast adrift by a shipwreck in the 'Alenuihaha channel⁶ in 1840, was attributed to her having Kamohoalii'i as an 'aumakua, a personal or family god. Emerson goes on to describe this incident in his article.

"Should the *kahu* [honored attendant] be upset in a canoe and be in serious peril, the faithful shark would appear just in time to take him on his friendly back in safety to the nearest shore. Such an experience, it is said, happened to Kaluahinenui, the *kahu* of a certain shark, while voyaging in the Alenuihaha channel. The schooner was overtaken by a severe storm and was lost with most on board. In her distress Kaluahinenui called upon her shark god, *Kamohoalii*, who quickly came to her rescue, taking her upon his back to the neighboring island of Kahoolawe.

This story of shark intervention and many similar to it are extensively believed at the present day. In Prof. Alexander's History⁷, however, where the real facts of this case are carefully stated, no allusion is made to any aid rendered by a shark. His statement is as follows: "At noon on Sunday, the 10th of May, 1840, the schooner *Keola* foundered and sank a considerable distance west of Kohala Point. As there was a strong current running to the northward, the passengers and crew, seizing on oars, boards, etc., swam for Kahoolawe, then about thirty miles distant. A Mr. Thompson of Lahaina was drowned, but his wife and two young men reached

Kahoolawe the next day. Mauae of Lahaina and his noble wife, Kaluahinenui, swam together, each with an empty bucket for a support, until Monday afternoon, when his strength failed. His wife then took his arms around her neck, holding them with one hand and swimming with the other, until she found that he was dead, and was obliged to let him go in order to save her own life. After sunset she reached the shore, where she was found and taken care of by some fishermen, having been thirty hours in the sea."⁸

Kamohoali'i appears to have had many different places of residence. In addition to his most well known home at Pali Kapu o Kamohoalii in the summit crater of Mauna Loa, he is said to have had similar cliffside dwellings in the craters of Kilauea and Haleakala. Being a shark deity, Kamohoali'i also possessed numerous coastal dwelling places, often making his abode in a large sea cave.

At least one of Kamohoali'i's homes is said to lie on the island of Kaho'olawe. Direct reference to this residence can be found in the legend of Kaehuikimanoopuuloa. The story of Ka-ehu-iki-mano-o-Puu-loa, the small blonde shark of Puuloa⁹, was recorded by William Henry Uaua and first printed in the Hawaiian language newspaper Ke Au Okoa as a serial, beginning on November 24th, 1870 and continuing through January 5th, 1870.¹⁰ It was subsequently condensed and translated by Thomas Thrum and published, first in his Hawaiian Annual for 1923¹¹, and later as a chapter in his book, More Hawaiian Folk Tales.¹²

The legend, as it has come down to us, concerns the exploits of Kaehuikimanoopuuloa, a young shark who undertook a journey from his home in Puna, Hawai'i, up the island chain to Kaula, the islet southwest of Ni'ihau, and then south to Kahiki.¹³ Along the way he won the friendship and respect of many of the high ranking sharks of the islands he passed, among them Kamohoali'i.

Though both of Kaehuiki's parents, Kapukapu and Holei, were human, their child was born in the form of a shark.

Following his birth the baby was nourished on awa grown by his father and mixed with his mother's milk. After ten days he was placed in the sea, and left to fend for himself, which the young shark proved more than capable of doing. It was not long before Kaehuiki expressed to his parents his desire to undertake a tour around the coast of Hawai'i. To prepare him for this journey, Kaekuiki's father anointed the young shark with consecrated water and fed him offerings of awa root and leaf, black coconut, red fowl and red fish.

Thus strengthened, Kaehuiki asked his father the names of the chief sharks of the various districts of Hawai'i that he might stop and pay respects to them on his journey. Kaehuiki also hoped to enlist them as traveling companions, for he had plans of a more ambitious journey up the island chain and then south to Kahiki. On learning their names and places of residence, Kaehuiki set off on the first leg of his tour around Hawai'i.

From Puna, Kaehuiki swam north to Hilo, where he met and gained the friendship of Kepanila, chief shark of that district, who agreed to accompany him on his journey. From there he returned back to Puna, stopping off at his parents home before proceeding on to Kau. Here again he sought out the chief shark of the district and, after winning his friendship, convinced him to join the growing company of sharks on their tour throughout the islands.

This experience was repeated at each successive district until Kaehuiki was accompanied on his journey by all five of the chief sharks of Hawai'i. Leaving Hamakua, the last district of call, this distinguished company set out to cross the 'Alenuihaha channel for Lae o Kealaikahiki on Kaho'olawe¹⁴ Here, however, they were met by a group of sharks who blocked their passage.

These sharks were soldiers of Kauhuhu, the chief shark of Maui, who had his home at Kipahulu in Hana. Despite Kaehuiki's friendly advances, the head of this guard refused to allow the Hawai'i sharks passage through Maui waters.

Finally, Kaehuiki was forced to challenge the leader of the sharks to single combat. Scornful of Kaehuiki's relative youth, the Maui shark readily agreed to the contest. Kaehuiki's strength and agility, however, quickly proved more than a match for the older warrior, and his opponent was soon floating to the surface, dead.

The company of Hawai'i sharks then sought out Kauhuhu in his lair, where Kaehuiki introduced himself and his companions and announced their peaceful intentions. The chief of the Maui sharks greeted them with anger and belligerence, and once again Kaehuiki found himself forced to engage in a battle of strength with a much larger opponent. As before, though, Kaehuiki won the day, this time by swimming in through the Maui shark's massive jaws and chewing out his vitals from the inside.¹⁵ The companions were then able to proceed on their journey.

As Thrum's translation relates;

From this engagement the touring party made for the Kahoolawe point, to pay their respects to the shark-god Kamohoalii. They met its watcher at the outer division of the cave, by whom Kaehuiki sent greetings to their supreme god, with request for admission of self and fellows of Hawaii on a peaceful sight-seeing tour.

The messenger did so, and was told to receive them, and to secure the help of the guardian shark of Honuaula for their entertainment.¹⁶ They were conducted into a large adjoining cave and fed. Toward evening they were told that the veteran would call upon them, and shortly afterward Kamohoalii, overgrown with sea-moss and barnacles, entered. Kaehuiki addressed the shark-god, humbly beseeching adoption as its grandchild; that it might be strong and brave, and with many bodies, aglow from anointings. This was agreeable to the supreme, who set tomorrow as the time for the ceremony.

The next day, all being ready, Kamohoalii came into their cave emanating godly fear, attended by a train of chief-sharks, their bodies adorned above and below. The Honuaula guardian entered with the calabash of anointment which he placed on the altar, to which he then led Kaehuiki, who stood forth unafraid before them all in the presence of the

god. Kamohoalii imparted his glow upon the ambitious youth, and the attendant emptied the anointing vessel upon him, reciting at the same time a chant commending the youngster's courage, and said:

"Kamohoalii by this anointment sets his seal of approval, and grants you strength second to none in this broad ocean from north to south, from east to west, wherever you may go; no one shall triumph over you from one horizon to the other, even to the borders of Tahiti. Any ocean-presumptive that dare quarrel with you will be as nothing before you; quietness is their safety, contention their death. You are also granted different bodies, as many as a hundred, of whatever form or kind you may desire. Such is the power as a god bestowed upon you, and may you live to extreme old age."

This ceremony over they rested till next day, when they renewed the journeying. At parting, Kamohoalii gave his blessing, to which the youth replied: "O king of kings! god of this wide ocean, we leave our humble but hearty thanks for the goodwill shown us, and will carry to the sacred cross-road of Nuumealani¹⁷ and back, the memory of your royal message.¹⁸

Leaving Kaho'olawe, Kaehuiki and his company journeyed on to Molokai and thence to Oahu, where they were welcomed by Kaahupahau, the famous shark guardian of the district of Ewa.¹⁹ After residing as her guest for a time, the Hawai'i sharks continued on to Kaua'i, Ni'ihau and Kaula. From there they turned south for distant Kahiki. They stopped first at the Marquesas, then toured through the Society Islands before arriving at New Holland²⁰. Throughout their tour of these distant islands the Hawaiian sharks met and won the friendship of their southern relatives.

At last they undertook the home journey, retracing the course of their travels up to Kaula and back down through the Hawaiian chain. On his return to Puna, Kaehuiki was greeted with joy by his parents who listened with growing pride as he told of the distinguished sharks he had met and of the many victories and honors he had won.

The story of Kaehuikimanoopuuloa provides support for the belief that one of the homes of Kamohoalii'i lay on the

island of Kaho'olawe. According to Uaua's account it appears that the shark god dwelt in a huge sea cave situated somewhere along the island's coast. The legend, however, provides us with no direct clues as to the whereabouts of this cave.

If we look again at the place names inscribed by J. Kauwekane on his 1917 map of Kaho'olawe²¹, we will find, written in at the foot of the cliffs just south of Lae o ka Ule, the name "Kalua o Kamohoalii", the cave of Kamohoali'i.²²

The cliffs which border Kanapou bay are riddled with sea caves. Though some of these are relatively recent, having been created during the second world war by the U.S. Navy planes testing the accuracy of their torpedo bombs, many are natural, cut into the face of the cliff by the action of the waves. The author of this paper has yet to explore the area at the northern head of Kanapou bay to determine whether a large sea cave lies at the location marked on Kauwekane's map. If such a cave does exist, it is difficult to say what, if anything, it might contain. One cannot easily predict what might be found in the home of a god.

Some suggestion as to what might once have existed within this cave is provided by an early historic description of a visit to a similar cave on the island of Moloka'i. This sea cave is described as a "'Keana Mano' or the 'cave of the Shark'"²³, and was found to contain a number of wooden images. The following account of how one of these idols was stolen from its home in the the cave is taken from the narrative of the Danish Government Expedition to the Hawaiian islands in the year 1846.

Of those things which Pastor Hansen succeeded in collecting in spite of all difficulties, for the ethnographical museum I should like to speak more in detail of one heathen idol given to the expedition by an American missionary. It did not distinguish itself by beauty, for it resembled merely a piece of wood at the end of which something was carved which was meant to represent a

face. Idols were extremely rare on the Islands, because most of them had been burnt at the introduction of Christianity. This one had been found the previous year [1845] on the coast of Molokai, in a small cave called "Keana Mano" or the "cave of the Shark", where there must have existed, in all probability a temple exclusively for fishermen.

The cave was nearly inaccessible, both by sea and by land, for the rock rose perpendicularly 800 or 900 feet out of the sea and a mighty surf beat right into the cave; the idol stood, together with ten or twelve others in the entrance. Some of the gentlemen belonging to the American Mission allowed themselves to be rowed there, but the natives were scared and had almost to be forced to go and render this service, for there existed a legend that he who tried to take away even a single one of these idols, the surf would hurl into the depths. "When we took them," thus my narrator told me, "and the natives were just about to swim back to the boats, one of them saw a big wave approaching and cried out:-"Now we shall all be drowned, look how the sea swells!" The inhabitants of Molokai tell that a man was sacrificed when the tree was felled out of which the images were made, and another one when the idols were put up; the first corpse was buried under the roots of the tree, the second one under the idols in the cave. Every woman that landed here was declared "tabu", the idol was called Kauhuliu²⁴ and as they believed, chased all the sharks away.²⁵

Whether or not similar wooden images once stood in the *keana mano* of Kalua o Kamohoalii is unknown. At present we cannot say whether the cave marked on Kauwekane's map is the same one mentioned in the legend of Kaehuiki, or whether such a cave even exists. Yet, these thin threads of evidence; a legend, a map, a cave, weave a fabric of possibility tying the legendary shark god Kamohoali'i to the island of Kaho'olawe.

Notes

1.) Kamohoali'i's role in the travels of Pele from Kahiki to Hawai'i is recounted in the introduction to Nathaniel Emerson's Pele and Hiiaka, a Myth from Hawaii. Emerson describes Kamohoali'i as, "a deity of great power and authority, a terrible character, hedged about with tabus that restricted and made difficult the approach of his enemies." (Emerson 1915:ix)

2.) In their "Glossary of Hawaiian Gods", Mary Pukui and Samuel Elbert describe Kamohoalii as, "Ka-moho-ali'i. Pele's older and favorite brother, the "most celebrated of...ancestral shark gods" (Beckwith, 1970, p.129), who accompanied Pele from Kahiki to Hawaii. He had a human form as well as shark and *hilu* fish forms. *Lit*, the royal selected one." (Pukui & Elbert 1971:386-7). In her Hawaiian Mythology, folklorist Martha Beckwith provides a full description of the various traditions related to Kamohoali'i. (Beckwith 1970:90, 129-130, 167, 169 & 170-172)

3.) Kilauea is the still active volcanic crater resting on the eastern flanks of Mauna Loa. Its name means literally "spewing". (Pukui, Elbert & Mookini 1974:111)

4.) Haleakala, a now dormant volcano, is the highest peak on the island of Maui.

5.) Emerson 1892:10. In ancient Hawai'i, an 'aumakua was a family god or guardian spirit, which often took the form of an animal. "The shark was perhaps the most universally worshipped of all the aumakuas [particularly by fishermen], and, strange to say, was regarded as particularly the friend and protector of his faithful worshippers." (Emerson 1892:8)

Each family possessed an 'aumakua to whom it might ask for aid in times of trouble. One member of the 'ohana (extended family) was considered the *kahu* (the honored attendant or keeper) of the family 'aumakua. The relationship which existed between a shark 'aumakua and its *kahu* is described in the following passage taken, once again, from Emerson's article.

"Each several[sic] locality along the coast of the islands had its special patron shark, whose name, history, place of abode, and appearance, were well known to all frequenters of the coast. Each of these sharks, too, had its *kahu*, who was responsible for its care and worship. The office of *kahu* was hereditary in a particular family, and was handed down from parent to child for many generations, or until the family became extinct. The relation between a shark-god and its *kahu* was oftentimes of the most intimate and confidential nature. The shark enjoyed the caresses of its *kahu* as it came from time to time to receive a pig, a fowl, a piece of awa, a *malo*, or some other substantial token

of its *kahu's* devotion. And in turn it was always ready to aid and assist the *kahu*, guarding him from any danger that threatened him. Should the *kahu* be upset in a canoe and be in serious peril, the faithful shark would appear just in time to take him on his friendly back in safety to the nearest shore." (Emerson 1892:8-9)

6.) 'Alenuihaha, which literally translates as "great billows smashing", is the channel separating the islands of Hawaii and Maui. (Pukui, Elbert & Mookini 1974:10)

7.) Alexander 1899:230-231

8.) Emerson 1892:9.

9.) Puuloa, literally "long hill", was the ancient name for Pearl Harbor on the island of Oahu. (Pukui, Elbert & Mookini 1974:201) Kaehuikimanoopuuloa was given this name in honor of the shark goddess Kaahupahau, who had her home in Puuloa.

10.) The series was published under the title "He Moololo Kaa -No- Kaehuikimanoopuuloa, Ke Keiki Mano A Kapukapu Ma Laua O Holei, Ka Hoouka Kaua A Na Mano. Hakuia E Mr. William Henry Uaua Esq.", which roughly translates as "The Tale of Kaehuikimanoopuuloa, The Shark Child of Both Kapukapu and Holei, The Rush to Battle By The Shark. Composed by Mr. William Henry Uaua Esq." A copy of the legend in the original Hawaiian has been included as Appendix T.

11.) Thrum 1922:124-132.

12.) Thrum 1923:293-306.

13.) The place name Kahiki, though probably originally used to refer specifically to Tahiti and the islands of southern Polynesia, came eventually to serve as the general name for any foreign land. (Pukui & Elbert 1971:104)

14.) The original Hawaiian text reads; "Pane mai la ka Pukaua Nui o ka moana, aohe alanui e hele ai ua paa p ka hoi aku ko oukou pakele, ua kauoha paa ia mai au e kou haku, e kiai i ka moana nei, aohe huakai e komo mai ma keia aoao o Maui nei, he kapu loa, e nana ae oukou la ua paa ka moana nei i na koa mailuna mai o Kapueokahi i Hana, a hiki i ka mole o Kealaikahiki i Kahoolawe, hoopaa mai no oukou o ke kua ka hope." (Ke Au Okoa December 1, 1870:4:c.1)

15.) One possible reading of this portion of the legend is as an allegory of the conquest of Maui chiefs by those from Hawai'i. In her book 'Olelo No'eau, Hawaiian Proverbs & Poetic Sayings, Mary Kawena Pukui relates the proverb "He mano holo 'aina ke ali'i. The chief is a shark that travels on land." (Pukui 1983:87, #799)

16.) This appears to be another indication of the close relationship which existed between Kaho'olawe and Honuaua.

17.) Nuumealani, "(Sacred raised place of the heavenly one), the land in the clouds" (Beckwith 1970:79), was one of the mythical lands of the gods. Martha Beckwith describes it as one of the "lands inhabited by the ancestral gods and closed [to mortals] after the migration of their descendants." (Beckwith 1970:78) Often, in legend, these lands are linked to the islands of Kahiki, the homeland of the Hawaiian people.

18.) Thrum 1922:128-129.

19.) Kaahupahau is said to have had her home in Pearl Harbor. She and her brother Kahi'uka ("The smiting tail") were guardian 'aumakua and protected the people of Ewa from the predation of marauding sharks. (Beckwith 1970:138)

20.) New Holland was an early name for Australia. The original Hawaiian gives this as "Nu Holani".

21.) The original of this map is on file at the Hawaii State Archives (Map, G4382.K3,1917,H38,.F6).

22.) The private papers of Inez Ashdown provide additional support for the belief that one of the homes of Kamohoali'i lay in the bay of Kanapou. On page two of her personal photo file, a copy of which is on file in the Hawaii State Historic Preservation Office, can be found the following handwritten note. "Kamohoalii, their brother, and mohoalii or representative of the [Pele] family is an 'aumakua shark King of Maui and lives at Kanapou Bay, Kahoolawe when away from his home with sister Pele in Halemaumau at Kilauea."

In a 1977 letter to Captain Crockett, who was then the naval officer in charge of Kaho'olawe, Ashdown wrote. "The Koa'e is the fine white "Bosun Bird", which is so sacred a messenger of the elements that it is the only bird which nests on the cliffs of Pele's home in Hale-maumau above her surging fires. They indicate the place reserved for her brother, Kamohoali'i, the Representative of the Hi'iaka family as the oldest brother, and his best-known form is as the kingly shark god whose homes also include Kanapou Bay and beneath Pu'u Ola'i on Maui, and Molokini in Alala-keiki sea. He guards and protects the family descendants to whom the Hi'iaka are 'aumakua, or ancestral parents' spirits." (this quote is taken from page 5 of Ashdown's "Notes to Capt. Crockett", a copy of which is also on file in the Hawaii State Historic Preservation Office). It is uncertain whether Ashdown learned of the location of the cave from one of her own informants or by examining Kauwekane's map.

23.) Bille 1922:137.

24.) We have, as yet, been unable to find any reference to "Kauhuliu" in the Hawaiian traditional literature. However, in at least one ancient legend, Kauhuhu, the chief shark of Maui (who played such a major role in the story of Kaehikimanoopuuloa) is said to have had one of his homes in a sea cave on the northeast coast of Moloka'i. A version of this legend, as related by Revered A.O. Forbes, can be found in Thomas Thrum's Hawaiian Folk Tales. (Thrum 1912:186-192) A similar tale, collected by W.D. Westervelt, is contained in his Hawaiian Legends of Ghost and Ghost-Gods. (Westervelt 1963:49-58)

In his version of the legend, Westervelt states that; "The name of the cave was Anao-puhi, the cave of the eel. Here dwelt the great shark-god Kauhuhu and his guardians or watchers, Waka and Mo-o, the great dragons or reptiles of Polynesian legend." (Westervelt 1963:51-52)

Forbes' version of the tale provides us with the location of this cave. "...the *Ana puhi* (eel's cave), a singular cavern at sea level in the bold cliffs between the valleys of Waikolu and Pelekunu, where Kauhulu, the shark god, dwelt". (Thrum 1912:188)

It is interesting to note that in this legend Kauhuhu makes his entrance into the cave on the back of a great wave. "Higher and higher rose the waves until the eighth reared far above the waters and met the winds from the shore which whipped the curling crest into a shower of spray. It raced along the water and beat far up into the cave, breaking into foam, out of which the shark-god emerged." (Westervelt 1963:53) Consider this in the light of Bille's remark that; "the natives were scared and had almost to be forced to go and render this service, for there existed a legend that he who tried to take away even a single one of these idols, the surf would hurl into the depths. "When we took them," thus my narrator told me," and the natives were just about to swim back to the boats, one of them saw a big wave approaching and cried out:-"Now we shall all be drowned, look how the sea swells!"

There is, at present, no way of telling whether the seacave of Kauhuhu was the "cave of the Shark" described in Bille's account. Both the legend and the historic narrative, however, help to illustrate the type of traditions which may once have surrounded Kalua o Kamohoalii

25.) This quote is taken from pages 137-138 of "Steen Bille's Report of the Voyage of the Corvette "Galathea" Around the world in the years 1845, 46 and 47. Translated from W.v.Rosen's German edition [1852?] Honolulu, March 1922.", which exists as a typescript in the Hawaii Mission Children's Society Library.

Chapter V

KANAPOU

"The lack of traditions for Kahoolawe is mute evidence of the unimportance of the island."

(Gilbert McAllister Archaeology of Kahoolawe 1933:59)

One of the most prominent physical features on the island of Kaho'olawe is the broad bay which occupies much of her eastern coast. This bay, known today as Kanapou¹, stretches from the headlands of Lae o ka Ule in the north to Lae o Halona in the south. It is hemmed on either side by steep cliffs whose profiles reveal the successive layers of lava and volcanic ash which have built the island.²

The only stretch of level land touched by the waters of Kanapou is the sandy beach which lies at the head of the bay.³ This beach, and the triangle of stream deposited soil backing it, form the floor of a wedge-shaped valley flanked, like the bay, by sheer cliffs. Tangled piles of salt bleached driftwood, fishing nets and other flotsam line the beach edge. Here can be found the massive trunks of oak and redwood trees, carried by currents from the northwest coast of America, as well fragile glass fishing floats which have drifted from the sea of Japan.

The presence of stray pieces of driftwood lying amid the rocks at the foot of the cliffs give ample evidence of the valley's vulnerability to high surf. Kanapou is also victim to storm waters of another sort, for during heavy rains its floor is inundated by the tendrils of intertwining stream channels. The threat posed by these natural forces appears to have discouraged human occupation within the valley, and as a result, Kanapou possesses fewer archaeological sites than many valleys half her size.⁴

Despite its paucity of ancient sites, Kanapou appears to have played a major role in the life of Kaho'olawe's native inhabitants. Then as now, the waters of the bay teemed with

an abundance of marine life. To the skilled fishermen of Kaho'olawe, Kanapou was a open calabash from which their families might be fed. It was also a *wahi pana* which figured prominently in the ancient traditions of the island. Not only did one of the homes of the shark god Kamohoali'i lie within the boundaries of the bay⁵, but its shores and headlands were linked to other legendary figures, foremost among these were the *kupua* (demigods) Kalaepuni and Kalaikini.

The earliest mention we have of Kanapou, in the written literature of these islands, can be found in Abraham Fornander's collection of Hawaiian Antiquities and Folk-Lore.⁶ This multi-volume work is a compilation of ancient chants, legends and folk tales collected in the late 19th century by Fornander and his native Hawaiian collaborators.⁷ Throughout this work, Kanapou is consistently referred to as Keanapou. Considering Fornander's reputation for painstaking accuracy in the recording of place names, it seems possible that the original name of the bay may indeed have been Keanapou, and that with time and use it became shortened to Kanapou.⁸

This might help to explain the difficulties encountered in translating the name of the bay. In their book Place Names Of Hawaii, Mary Pukui, Samuel Elbert and Esther Mookini, who have endeavored to provide at least literal translations for most of the place names they record, have not even attempt to translate Kanapou. Lahilahi Webb, who translated Kaho'olawe place names for Gilbert McAllister in the 1930s, felt that the name meant "The-port-of-Kana", but she placed a question mark beside this translation to show her uncertainty with it.⁹ If the original name for the bay was indeed Keanapou, it may have been a combination of the words *ke* "the", *ana* "cave" and *pou* "post", "pole" or "pillar". Certainly, the cliffs above Kanapou possess more than their share of caves.

References to Kanapou can be found in three of the legends contained in Fornander's Collection. Among these is "Kaa no Kepakailiula", or the "Legend of Kepakailiula". This account tells of Kepakailiula, "one of the strongest of the sons of Hawaii, who traveled and conquered all those who opposed him on Hawaii, Maui, Oahu and Kaua'i."¹⁰ In a motif common among Hawaiian legends, the exploits of this strongman were looked upon with suspicion and fear by the established elite, who saw Kepakailiula as a threat to the rule. As the legend explains it;

The news of the death of Kakaalaneo [a rival strongman] by Kepakailiula was in time carried to Kakuhihewa, the king of Oahu, and he began to entertain fears of Kepakailiula, and in order to avoid any conflict he thought he would send his own canoes in charge of his own personal servants to Maui, to invite Kekapailiula to come to Oahu, and also to adopt him as his son and to offer him the possession of the island of Oahu. In time the canoes set out from Oahu on their way to Maui. On account of contrary winds and a storm that came up soon after they set out, they landed at Kaunolu [Lana'i]. That same evening, however, the wind subsided and the canoes were once more launched and they got as far as Keanapou in Kahoolawe¹¹, where they landed and spent the night. From this last place they again set sail, landing at Kapueokahi in Hana, Maui, where Kepakailiula was staying.¹²

In this legendary account, the bay of Kanapou (or Keanapou) serves as a convenient resting point on a canoe voyage between Oahu and the east coast of Maui.

The bay serves a similar purpose in the tale "He Kaa no Kapunohu, or the "Legend of Kapunohu". Like Kepakailiula, Kapunohu is a warrior of amazing strength. After being insulted by his brother-in-law Kukuipahu, a chief of Kohala, Kapunohu seeks revenge by allying himself with Kukuipahu's rival Niulii. There follows a pitched battle in which Kapunohu and the forces of Niulii defeat the warriors of Kukuipahu.

After the battle, Kapunohu and his god Kanikaa set out for Oahu, taking his spear Kanikawi along with him, for a visit to his sister, the wife of Olopana. Kapunohu went aboard of a canoe at Kohala and landed at Keanapou, in Kahoolawe,^{12a} where he spent the night; from this place he again set sail and landed at Kahalepalaoa in Lanai; then from this last place he set out and landed at Kaluakoi in Molokai; then from this place he again set out and landed at Makapuu Point, in Kailua, Koolau, where his sister Konahuanui was living.^{12b}

The bay of Kanapou appears to have been commonly used for this purpose, even into the historic period, for A.D. Kahaulelio, writing in 1902, makes mention of "the canoe landing of Kanapou".¹³ These accounts would suggest that Kanapou provided a convenient, and somewhat sheltered, landing and overnight camping spot for passing fishermen and other oceangoing travelers.

A suggestion that there may have been at least some permanent habitation along the shores of the bay can be found in another legend within the Fornander collection. "Kaa no Kalaepuni a me Kalaehina", or the "Legend of Kalaepuni and Kalaehina"¹⁴ relates the story of Kalaepuni, and of his brother Kalaehina (also known as Kalaikini), both of whom were *kupua*, or demigods.¹⁵ These two cultural heroes were possessed of great physical strength, an attribute they used to procure for themselves the chieftainship of Hawai'i and Maui. It was this overreaching desire for power which led to their deaths.

Kalanipo and Kamaelekapu were the father and mother of Kalaepuni and Kalaehina. Kalaepuni was the elder and Kalaehina was the younger. They were of Hawaii. Regarding Kalaepuni: he was a very mischievous boy and one who was without fear. At the age of six he was able to whip all his playmates and his strength developed from that time on until he reached the age of twenty years, at which time Kalaepuni became famous over the whole of Hawaii for his great strength. At twenty he determined to kill all the young chiefs of Hawaii, those who were of very high blood as well as those of low blood, both big and small, even the mere

sucklings. In his plan to kill all the chiefs he did not intend to kill Keawenuiaumi, because, as he reasoned, Keawenuiaumi was already well on in years.¹⁶ But Keawenuiaumi was afraid of Kalaepuni and he made his plans to escape and get out from the presence of Kalaepuni.¹⁷

The legend goes on to describe some of Kalaepuni's feats of strength and how they so frightened Keawenuiaumi that he decided to hide himself far in the interior of the island, on the inland slopes of Hualalai, near the temple of Ahu-a-Umi, which his father had built.¹⁸

Before Keawenuiaumi went off to hide himself, he left word with one of his servants, Maunaloa by name, as follows: "I am now on my way. If Kalaepuni comes while you are here, tell him that I am dead." The servant consented to do this. Keawenuiaumi then departed on his way to the place mentioned above. After the departure of Keawenuiaumi, Kalaepuni arrived at the house and asked Maunaloa as to the whereabouts of the king. Maunaloa answered that the king was dead. Kalaepuni then took charge of the whole island of Hawaii and he reigned as king in place of Keawenuiaumi.

While Keawenuiaumi was in the mountain he one day said to his high priest, Mokupane: "You must invoke the gods for the death of Kalaepuni that I may again reign as king of the whole of Hawaii." Soon after this request of the king was made, Mokupane the priest sent two forties of men to Kahoolawe on canoes to dig a well ten fathoms in depth and to place large rocks around the mouth of the well. The name of the land where they were to dig the well is known as Keanapou and it is there to this day. After the well was dug and the rocks put in place, an old man and his wife were placed in charge of it; they were fisher folks.

When the two forties of men were ready to return to Hawaii, Mokupane the priest instructed the old couple, saying: "If a very large man with locks of hair that are as long as a bunch of *olona* should come while you two are here, that is the man for whom this well has been prepared and here he must die. When he comes give him all your fish so that after he shall have eaten the fish he will be very thirsty. When he asks of you for some water don't give him any, but direct him to this well." After these instructions were imparted by the priest, he and the men returned to Hawaii, where

the priest invoked of the gods for the death of Kalaepuni.

Soon after Mokupane began on his prayers it was reported all over Hawaii that great schools of sharks were being seen daily at Kauhola off the coast of Kohala. When this was reported to Kalaepuni he at once entertained a strong desire to go to Kauhola and have some sport with the sharks, as it was his chief delight to kill them.

After Kalaepuni had arrived at Kohala and set foot at Kauhola he saw a large number of people gathered at the place looking at the sharks. When Kalaepuni saw them he jumped in and began to fight the sharks, killing a good many of them. While Kalaepuni was busily engaged in his fight with the sharks he did not notice how he was being carried away from land by a strong current into the channel of Alanuihaha. After being at sea for three nights and three days he landed at Keanapou in Kahoolawe.¹⁹ When he reached the shore he looked about him and saw a small house, near by, to which he then went. Upon arrival at the place, he looked and saw an aged couple who greeted him, which greeting he returned. The old people then asked him: "Did you come from the sea?" "Yes," said Kalaepuni. "I have been three days and nights in the sea before I landed here." Kalaepuni then asked the old people: "Have you any food?" The old people said: "No, there is no food in this place."²⁰ The only food that you can get in this place is what is brought here in canoes. When any one comes from Honuaula or Ukumehame²¹, then we get food. The only food that grows here is the *kupala*.²²

Kalaepuni then looked up and saw a shelf with some fish being put out to be dried and asked: "Who owns that fish?" "We do," answered the old people. Kalaepuni then asked them: "May I have some fish?" The old people then gave him all the fish and Kalaepuni began to eat them until he had finished the whole lot. Kalaepuni then asked: "Is this all the fish you have?" The old people said: "We have two calabashes of pickled ones left." Kalaepuni then took the fish from the two calabashes and devoured them all. After this Kalaepuni became very thirsty and so asked of the old people for some water. The aged couple then said: "We have no water. The only water we have here is the salt water. Fresh water can only be had after a rain storm;²³ but salt water is our only water; it is in a well." After this Kalaepuni went and climbed down the well to take a drink.

While Kalaepuni was drinking the water in the well, the old people began to roll down the rocks

that were around the mouth of the well. After the back of Kalaepuni was covered with rocks he would move and the rocks would roll off; but the two kept on rolling the rocks until the well was almost filled up, without killing Kalaepuni. In all this Kalaepuni still kept drinking and as the water was covered over with the rocks he could get but very little.

When Kalaepuni saw that the two were bent on killing him he called out: "I am going to kill you two." He then began to turn and twist out of the rocks until he had freed himself. When the old people saw that they would get killed if Kalaepuni could get to the top, the old man ran away. When the old woman saw this she called out: "Are you going to run away? Is it not best to continue the fight until the enemy is killed? Do you suppose that you could save yourself by running? You will get killed if you run and you will get killed if you stay, for with this great strength none will ever escape." With all this the old man kept on running and he never once turned back. The old woman, however, kept on rolling down the rocks till one happened to strike Kalaepuni on the head killing him.²⁴

Although Fornander's account of the death of Kalaepuni is labeled a *ka'ao*, or fictional narrative, the landscape within which the story unfolds is real. Not only does the bay of Kanapou itself exist, but so to, up until relatively recently, did the well where Kalaepuni was murdered. Its presence is mentioned more than once in early historic accounts of the island.

In speaking of the various water sources to be found on Kaho'olawe in 1857, Governor Paul Nahaolelua states that, "another brackish water is at the East side of said Island, at Kanapou, the well where Kalaepuni was murdered."²⁵ Nahaolelua wrote these words in a letter to Lot Kamehameha^{25a}, and it is evident from his casual reference that Lot, like most knowledgable Hawaiians of the time, was familiar with the story of Kalaepuni. Even at this late date, the legend of Kalaepuni, and of his death at Kanapou, appears to have been well known among the people of these islands.

The well of Kanapou is also mentioned by A.D. Kahaulelio in his series of articles entitled "He Mau Kuhikuhi No Ka Lawaia Ana", published in the Hawaiian language newspaper Ka Nupepa Kuokoa in a series of articles running from February 28th 1902 to July 4th 1902.²⁶ In these articles Kahaulelio relates a very different version of the Kalaepuni story, one which was told to him by his grandparents, who had grown up in Honuaula, Maui, just across the channel from Kaho'olawe.²⁷ He tells this story to help explain the unusually large size of the *opihi* (limpets) found at Kanapou.

The dark makaiauli *opihi*s were gathered by the children at the cliffs of Kahalo, Lanai, a place famed for its *opihi*s. True, but for the big size they were not equal to those of Kanapou, Kahoolawe. Your writer is well acquainted with these places. For bigness, they do not compare to Kanapou's. It is at that large stream facing Honuaula. The *opihi* are as large as the bowls found in shops, not large ones, but the smaller ones. Goat meat could be boiled in *opihi* shells and the twenty-five cents worth of beef bought in Lahaina could be cooked entirely in the *opihi* shells of that locality, not the *opihi* dived for, but that which clung to the sea cliffs. Your writer was there for a week without vegetable food, living only on water, fish, *opihi* and goat meat. That is how I discovered that that was the place of large *opihi*s. Much money is gained by selling *opihi*s and Honolulu's people know the value of this food, for they get only a few times four (*mau kauna*) *opihi*s in a saucer for the price of twenty five cents. In other places they are taken without price and if you wish to see those large *opihi*s go there and see for yourself. Perhaps some doubt the truth of this statement, so it will be well for me to tell an old story of a certain man. He caused the largeness of the *opihi*s of this place, so my grandparents told me. A certain man of Hawaii named Puuiaiki²⁸, left Kohala on his small canoe and midway between Alanuihaha channel his canoe was swamped by the billows and [he] could not make it move. He tried to float it, and failing, decided that it was better to swim to Kahoolawe. The wind blew him along and the swimming was easy. As he swam, an *opihi* makaiauli appeared before him. He said to himself, "What a strange *opihi* this is. It does not sink into the sea. What kind of thing is this and what does it mean?" Puuiaiki reached out and grasped it in his

hand, as he asked repeatedly what it was about and what this opihi makaiauli meant. O readers, in truth this was an opihi sent hither by the prophet²⁹ Moaula, and that is the little hill standing on Kahoolawe and that is the only mountain of that land.³⁰ He was sorry for Puuiaiki and sent the opihi to rescue him. Let us leave the opihi and turn to look at Puuiaiki swimming in the sea. Soon after Puuiaiki had grasped the opihi, a shark came by with his mouth open wide. The upper jaw stretched up to the surface and the lower jaw reached down into the depths of the sea. Then Puuiaiki spoke, "If you bite me, I'll live. If you swallow me whole into your stomach, I'll die." Puuiaiki slipped into the mouth of the shark to its stomach with his opihi. There he scraped the flesh of the shark for three nights and three days. The shark landed at the bay of Kanapou on Kahoolawe and died.³¹ Out came Puuiaiki, with bald, shiny head and went up from the beach to where the akulikuli weeds crept over the sand. There he rested with pohuehue leaves shading his head.³² Some fishermen saw him sitting there and decided to come take a look at him yet they were fearful, thinking that perhaps he was crazy. "Aloha," greeted the fishermen. "Aloha," he replied, "have you a little water?" "We have no water but there is a spring above here and if you wish we will lead you there." "yes," said Puuiaiki, "I will rest until I feel better and I'll go up." As the fishermen went back one said, "Say, what we should do is to kill him. If we do not destroy him then we ourselves will be destroyed for that is a demi-god."³³ His name is Puuiaiki, but how are we to kill him? When he goes down to the spring then you pelt him with stones until they are piled up high beside the spring. Let us go to fetch Puuiaiki and ask him how he got here." Puuiaiki told them the story I have mentioned above. They were certain he was a kapua because the shark had not succeeded in destroying him. When they arrived at the spring, which your writer thinks is about four feet deep and nicely dug out, Puuiaiki went down to drink. As he drank he leaned down with his legs slanted upward. They began to stone him, but he kept on drinking until the spring was filled with stones and heaped high above. Strangely, the next morning, when the people went there the spring was open and the stones on the side toward the upland, for in the meantime the prophet Moaula came to get him to go live with him.³⁴ The spring is open to this day. We got there as castaways in the year 1848 and drank the water of the spring of Puuiaiki's. If it

were not for this spring we eight would have been corpses, six adults and two of us young boys, one thirteen and your writer who was then eleven. This is why the opihi of this place are so large and to make the idea of the size clear, they were as large as the poi bowls of Lahainaluna in the olden days and also at this time. Your writer had visited Kanapou twice and on other places of Kahoolawe the opihi were the same as everywhere else in the island group. If you wish to see the largeness of the opihi of that place, let J.K. Nahale buy a steam launch and come to get me. I'll take you to see the famous opihi of Puuiaiki.³⁵

From Kahaulelio's account of his own experience as a castaway on Kaho'olawe, we know that the well mentioned in the legends of Kalaepuni and Puuiaiki still existed in 1848. Kahaulelio suggests that it survived even as late as 1902, the time at which he was writing. By 1939, however, when the geologist Harold Stearns visited Kanapou he was unable to find any trace of the ancient well. It appears likely that without any one to maintain it and keep it open, the well was simply buried by the alluvium washing down from the eroding uplands.³⁶

While the Kalaepuni legend describes the well at Kanapou as being "ten fathoms in depth", this is probably an exaggeration. Unlike western-style wells with their deep, stone-lined shafts, most early Hawaiian wells appear to have consisted of little more than shallow pits. A more accurate description of the Kanapou well seems to be that given by Kahaulelio, who himself drank from the well, and who described it as being "about four feet deep and nicely dug out".³⁷

Traditional Hawaiian wells of the type found at Kanapou bay are seldom mentioned in the historic literature. This may be due in part to the fact that on the larger islands where the bulk of the population dwelt (and where most visiting chroniclers spent the majority of their time), permanent streams provided water to all but the driest areas. Even Thomas Thrum, who lived much of his adult life in Hawaii

and traveled extensively throughout the islands recording ancient traditions, states in a footnote to the Kalaepuni legend that "Well digging was unusual among Hawaiians. Probably the only instance known up to the dawn of civilization in these islands, was the attempt by Kamehameha to sink a well near the south point of Hawaii."³⁸

It might be more historically accurate to say that well digging was unusual among Hawaiians living in the wetter regions of the larger islands. Populations on drier islands such as Lanai and Kaho'olawe depended on such brackish water wells for their very survival. Probably the best account we possess of traditional Hawaiian wells is that provided by Reverend William Richards, who visited the island of Lana'i in 1834. At that time the inhabitants of the island were living much as they had in the years before the coming of Westerners. The people of Lana'i, like the people of neighboring Kaho'olawe, were still very much dependent upon the traditional sources of life.

As Reverend Richards wrote in a letter to his patrons in Boston;

These wells, though few on Lanai, are common on many parts of the Sandwich Islands. They are either natural or artificial pits, sometimes only a few feet in diameter, and at other times many yards. They are so prepared as that when it rains the water for a distance may flow into them. There are steps to go down into them, but they are not often very deep. In places where they are exposed to dust & dirt from the wind, they are uniformly covered, and even where they are not thus exposed they are often covered, to prevent the water from drying up as soon as it would otherwise. Some of these wells are never exhausted even though they are not replenished for eight or nine months.... On the sea shore, both at Lanai and throughout the islands, with few exceptions, there is a full supply of brackish water, but such as none can drink except those who are accustomed to it. I know not a single well on the Sandwich islands, supplied with water from the bottom, except such as one on the sea shore & on a level with the sea.³⁹

Reverend Richards' letter provides us with a good description of what the well at Kanapou may have looked like. Its presence within the valley probably enhanced Kanapou's reputation as a convenient rest spot for fishermen harvesting the wealth of Kaho'olawe's offshore waters or for travelers on long, interisland canoe journeys. One can only assume that most visitors to the bay of Kanapou were not greeted in quite the same manner as Kalaepuni and Puuiaiki.

In reviewing the legend of Kalaepuni we have seen the role which the island of Kaho'olawe played in the life, and death, of that legendary strong man. But what of his brother Kalaehina, or as he was also known, Kalaikini?⁴⁰ The Fornander legend relating the exploits of Kalaehina makes no mention of Kaho'olawe. In fact, nowhere in any of the surviving stories related to Kalaikini is there any word of his having visited, or having anything to do with, the island on which his brother was killed. We do, however, possess indirect evidence that Kalaekini did indeed come to Kaho'olawe. This evidence takes the form of two brief, handwritten notes inscribed on an old sketch map of the island.

Now, according to legend, Kalaikini was renowned for traveling throughout the islands stopping up *puhi*, or blowholes. *Puhi o Kalaikini* at Kapahua on the southwest shore of Hawai'i⁴¹ and *Puhi o Mokuhanu* near Kauiki in Hana, Maui are both said to have been plugged by him, and legends exist relating how this came about.⁴²

On one of our earliest maps of the island of Kaho'olawe, drawn sometime around the late 1880s (possibly by surveyor and Hawaiian scholar Joseph Emerson)⁴³ can be found two place names; "Kohe o Hala" and "Halona cape". The words "Kohe o Hala" have been written in at a point along the coast just north of *Lae o ka Ule*, the northern headland of Kanapou bay. Inscribed beneath this name is the notation "Puhī Kalaikini tried to stop".⁴⁴ To the south, across the broad mouth of Kanapou lies the headland marked on the map as "Halona cape"

(Lae o Halona). Beside this place name the author of the map has written "Puhi stopped by Kalaikini".

The annotations found on this map, if they are to be believed, suggest that there once existed a legend, now lost, relating Kalaikini's exploits on Kaho'olawe; telling of his successful and unsuccessful attempts to stop up the blowholes which flank the bay of Kanapou, the spot at which his brother was murdered.

These same *wahi pana* also play a role in other traditions related to the island. In her collection of notes on Kaho'olawe Inez Ashdown makes frequent mention of Kohe o Hala and of nearby Lae o ka Ule.

These places were considered sacred. Women unable to bear children would go there and stop to pray and offer sacrifices of certain fish, etc., to beg the blessing of having children. Kohe o Hala means the female-organ of generation producing abundantly; ule is the male organ of reproduction. La'e is a land-point, or a forehead.⁴⁵

At the seaward tip of the headland of Lae o ka Ule stands a large stone rising from the waves. This stone, which resembles an erect human phallus, may have given the spot its name (for Lae o ka Ule means literally "cape of the penis").⁴⁶ In a 1967 article entitled "The Island of Death", Inez Ashdown wrote that; "At the Lana'i end of Kanapo'u Bay stands an upright stone of huge size. It is a Pohaku Kane, a symbol of creation which was visited by barren women in olden times, while they prayed to have the gift of children."⁴⁷

Ashdown links these two *wahi pana* through a legend which she feels helps to explain the true meaning behind their names.

Puhi-kohe-o-hala= Puhi: a blowhole or place of expulsion; fig. to steal something, like virginity; to set afire actually or emotionally; to burn. Puhi is the fig. name for any stranger. In the story translated by Kahu Edward Kapo'o, a stranger raped Hina there (foreigners raped this land). A name for Hina in this story is I-nai-na of Kohe-ma-lama-lama which is the ancient name given the

island.⁴⁸ At Lae Halona the Kahuna or Chief, Kanaloa, is in love with Inaina and he peered and saw what happened. He goes there. The Puhi is going away, careless and proud. The Kahuna blesses (hala) Inaina to remove the 'fire of shame' and the pain of physical and emotional ills. His prayers to the deities or 'Aumakua transform Puhi into Pohaku Ule (stone penis) there by Kanapou Bay, by the Pali o ka-lapa below the land of Haki'oawa where they offered and drank the 'awa to the Akua in thanksgiving."⁴⁹

The origins, and thus the authenticity, of Ashdown's story remain uncertain. If we are willing to trust her an accurate source of Hawaiian tradition, then it would appear that the blowhole of Kohe o Hala and the rock of Lae o ka Ule were both associated with rites of fertility and childbearing.

At the southern end of the broad bay of Kanapou lies Lae o Halona, the site of the "Puhi stopped by Kalaikini". Not far from this spot, atop the high cliffs which rise vertically from the sea, can be found a cluster of three small and seemingly insignificant stone structures. Each of these sites consists of a crescent of stones piled up to form a low sheltering wall.⁵⁰ While one of these shelters rests with its back to the ocean, offering protection from the harsh winds which sweep up and over the cliff edge, the other two stand facing the sea.

The unusual positioning of these structures, as well as the absence of any midden or other cultural material associated with them, suggest that they served, not as occupation sites, but as *kilo*, or observation stations. Seated within one of these two sea-facing shelters, one can look down onto the waters of Kanapou bay or out across the Alalakeiki channel to east Maui. These viewing stations could have been used either to locate schools of fish cruising the offshore waters, or to spot fleets of canoes approaching the island. The third structure, the one with its back to the sea, may have served as a sleeping shelter in

which those involved in watching might rest. Though the identification of these sites as kilo is based solely on their physical appearance and must be considered tentative at best, it is interesting to note that nearby Halona point can be translated as the "peering place".⁵¹

Within the valley of Kanapou itself can be found other ancient remains. As we have said before, any sites resting on the valley floor, if there were any, have probably either been destroyed by storm surf or buried beneath layers of newly deposited sediment. There are, however, two sites which have survived the passage of time and the destructive forces of nature. Both of these rest just back of the beach at the foot of the cliffs which enclose the valley. These two sites stand, however, on opposite sides of the valley, facing each other across its sandy floor.

At the southern end of the valley lie a cluster of stone faced terraces resting against the slope.⁵² These were first described by J.F.G. Stokes during his 1913 survey of Kaho'olawe. Stokes notebook entry for March 6th reads;

Rode to Kanapou Bay & descended to the beach at the S. by the S. gulch. We had expected to find fossil land shells and did so as soon as we alighted at the top of the gulch. The fossil bed continued all the way to the sand-dunes at the bottom. I went around this bay as far as possible in both directions, and found numerous caves with nothing in them. On the S. side of the beach were 2 platforms, one higher to the S.E. of the other, enclosed with low walls. Each were about 15x15 [feet ?] inside. In the lower were 60+ *Cypraea mauritania* [cowrie shells]⁵³ some of which had been roughly prepared for squid hooks. A greater number were buried & at first I thought that it was a hiding place for them. The platform was either a house lot or a squid fishers heiau. The upper platform had the S.E. corner built out level with the wall. On removing this part I found nothing but fossil land shells."⁵⁴

Today Stokes' "squid fishers heiau" lies hidden behind a high, windblown dune. The site appears to consist of three terraces and an enclosure. The lower, main terrace⁵⁵ (the

only one clearly visible amid the thick growth of kiawe which now covers the slope) is faced with large stones and bordered in the rear by a stone alignment. A section of the terrace's front wall has collapsed and sand has blown across the surface of the structure, greatly obscuring it. Within a small niche in the terrace face have been placed three large but unworked cowrie shells (the remnants of Stokes' "60+ *Cypraea mauritania*"), while a fourth lies half buried in the sand now covering the surface of the terrace.

The size of the terrace, as well as the presence of shells apparently left here as offerings, seems to support Stokes' view that the structure served as a religious site, most probably a fishing shrine. On the ridge above it is a second terrace which looks as though it may have been a house foundation.⁵⁶

The layout of this site is echoed across the valley.⁵⁷ Here again one finds, at the foot of the slope, a stone faced terrace, this time with what appears to be an interior division and one (possibly two) upright stones.⁵⁸ Along the front of the terrace are scattered a few cowrie shell lures, a number of large *opihi* (limpet) shells, some coral and other smaller marine shells. The upright stone, the cowrie shell lures, all provide evidence to suggest that this too was a fishing shrine.

Also at the foot of the slope but a little ways further up the valley is a second stone faced terrace which appears to have formed a part of this shrine.⁵⁹ On the slope above these structures, amid a jumble of rockfall, stands a third terrace, which, like its brother across the valley, looks very much like a house site.⁶⁰ Various small marine shells lie scattered between the rocks immediately downslope of this terrace.

It seems certain that at least the lower terraces of both of these sites served as some form of *ko'a*. Why there would be a need for two such fishing shrines within the same

valley is uncertain. Possibly they were dedicated to different gods or served somewhat different functions.

Whatever the reason, their presence within the valley of Kanapou provides a strong indication of the importance which that valley, and its adjacent bay, had to the early inhabitants of Kaho'olawe. Standing atop the cliffs which overlook the bay, one can easily imagine a scattering of outriggers drawn up along the beach at "the canoe landing of Kanapou", while their occupants carry the first fish of their catch inland to be laid upon altar one of the valley's shrines.

Notes

1.) In addition to its Hawaiian name, the bay also possesses an English name, Beck's cove, and a Japanese name, Obake bay. The term Beck's cove appears to have come into use just after the turn of the century. We encounter it for the first time on a topographic map of the island drafted in 1905 by a surveying crew from the U.S.S. Patterson. (A copy of this map is on file at the Hawaii State Survey Office [Reg. No.2726, Vault, Case 10-50], as well as at the Archives of the Bishop Museum [G4382-K3-1904-C5]) Among the printed notes which crowd the edges of this map is a list of the members of the field crew who undertook the survey. Within this list one finds the name "H.L. Beck, Aid". It is evident that, not knowing the traditional name for the bay, the members of the survey party employed the prerogative commonly claimed by western explorers and cartographers, and named the bay for one of their own. The name Beck's cove is used today primarily by Navy personnel operating on the island, who apparently find it easier to pronounce and remember than the bay's Hawaiian name. The Japanese name for the bay was given it by local Japanese fishermen some time within the later part of this century. The word obake means "ghost", and it is believed that the name derived from the uncertain winds which often sweep the bay. (Clark 1980:134)

2.) The cliffs which edge the northern shore of the bay are known as Pali o Kalapakea, which can be translated as "cliff of the white ridge" (*pali* meaning "cliff", *o* "of", *ka* "the", *lapa* "ridge" and *kea* "white"). This name first appears on a sketch map of the island drawn some time around 1889. (this map, Doc. 1126, is presently on file at the Hawaii State Survey Office. See Chapter II, note 30 for a full description of this map and its possible origins.) A later map, whose place names were provided by a native Hawaiian speaker familiar with the island, J. Kauwekane, labels this area as Lapa Kea; "white ridge" (the original of this map is held at the Hawaii State Archives, Map G4382.K3, 1917, H38, .F6. For more background on this map, see Chapter I, page 3)

3.) On the contemporary U.S. Geological Survey map of Kaho'olawe this beach is referred to as Keoneuli (possibly translated as "dark sands"). This name first appears in the writings of Inez Ashdown. It is difficult to say whether Keoneuli is a traditional name or a name given to the area by Hawaiian cowboys working for the cattle ranch owned by Ashdown's father, Angus McPhee. In a collection of notes entitled simply "Kaho'olawe", now held at the Bishop Museum Archives, Ashdown speaks of "the sand beach called Keone'uli (Dark sands, or The Land of Uli the sorceress."

Recently, International Archaeological Research Institute Inc. drilled a number of auger holes into the Kanapou beach sediments in search of pollen. One of these

cores, which was drilled towards the back of the beach, extended down to a depth of 3.43 meters. At about two meters in depth the dark, dirty sand visible on the surface began to lighten, giving way at 2.5 meters to clean, white coralline sand. (Athens, Ward & Welch 1992:66) It would appear from the results of this test core that the sands of Kanapou were formerly much whiter than they now appear. As has been mentioned before, the introduction of hooved animals to the island in the historic period resulted in massive erosion and down-washing of sediment. This sediment mixed with the sands of the bay to transform Kanapou beach from pale white to the dirty dark brown it is today. If this hypothesis is correct, and the "dark sands" of Kanapou are a purely historical development, then it would seem logical to suggest that Keoneuli was not the beach's traditional name.

4.) There is, of course, the possibility that these same forces have obscured or destroyed all traces of sites which once existed on the valley floor. As at Hakioawa, evidence of prehistoric occupation sites may exist beneath the recently deposited sand and sediment covering the valley floor.

5.) See Chapter IV.

6.) Kanapou, along with Lae o Kealaikahiki, was one of the first of Kaho'olawe's place names to find its way onto a map. As early as the 1830s, the maps of Hawai'i drawn and printed at Lahainaluna seminary included Kanapou. The name of the bay was spelled alternately and, one assumes, incorrectly as Kanapuu (on a map drawn by Kapohoni and dated 1839, a copy of which is held at the Hawaii Mission Children's Society Library, H 912, M44, mf) and Kanapua (on a similar map, also dated 1839 and in the collection of the Hawaii Mission Children's Society Library, No. L64). Later maps and accounts referred to the bay either as Keanapou or simply Kanapou, the name by which it is known today.

7.) The title of this work explains a great deal as to its origins and contents. It's full title reads; Fornander Collection of Hawaiian Antiquities and Folk-Lore: The Hawaiians' Account of the Formation of Their Islands and Origin of Their Race, With the Traditions of Their Migrations, Etc., As Gathered From Original Sources by Abraham Fornander, With Translations Edited and Illustrated With Notes by Thomas G. Thrum. Though Swedish by birth, Abraham Fornander spent the majority of his adult life in Hawai'i, having arrived in the islands on a three masted whaling ship in the early 1830s. Married to a Hawaiian chiefess from the island of Moloka'i, Pinao Alanakapu, Fornander developed a great appreciation of, and love for, the Hawaiian culture. All too aware of the rapid disintegration of that culture, he took it upon himself to

collect and record the traditional legends, chants and genealogies of his adopted land. Fluent in the Hawaiian language, Fornander recorded these traditions as he heard them, being extremely careful to preserve their original wording. The material included in the Fornander Collection of Hawaiian Antiquities and Folk-Lore was recorded from the spoken words of knowledgeable Hawaiians by Fornander, and by young Hawaiians like Samuel Kamakau and J. Kepilino who were intent on preserving what remained of the oral traditions of their culture. After Fornander's death in 1887 these various legends and folk tales were compiled and translated under the supervision of Dr. W.D. Alexander. They were subsequently edited by Thomas Thrum, were published in three volumes between 1916 and 1920 by the Bishop Museum.

8.) This process of contraction is not uncommon among Hawaiian place names. On the island of Oahu one finds the place names Mo'oiliili, which has been shortened to Moiliili, and Mokukapu, which has become Mokapu. (Pukui, Elbert & Mookini 1974:239) On Kaho'olawe herself, out at the island's western end, lies a long sandy beach known today as Keanakeiki, whose original name, according to one old map (Doc. 1126), appears to have been Keanaakekeiki.

9.) McAllister 1933:57.

10.) Fornander 1916-19:V:394. None of the legends in the Fornander collection which make mention of Keanapou can be contributed to a known source or author. They are all included amongst the "more important legends and traditions of the race" which comprise volume V of the collection. (Fornander 1916-19:V:1) Interestingly, Martha Beckwith, in her Hawaiian Mythology, suggests that at least a portion of the Kepakailiula legend (that describing the battle between Kepakailiula and Kakaalaneo) is "drawn directly from a tale from *The Arabian Nights*". She feels that "the treatment of the episode marks it as a foreign imitation." (Beckwith 1970:384) This might suggest either a post-contact origin for the legend, or, more likely, the use of newly introduced story elements to add interest to a well known traditional tale. The presence within a Hawaiian legend of elements taken from Middle Eastern folklore serves as a reminder that oral literature is never static, and that the stories we read in Fornander and in other collections of Hawaiian tales reflect not only the world of the ancient Hawaiians who originally composed them, but also the rapidly changing world of those post-contact story tellers who came eventually to put them onto paper.

11.) The original Hawaiian text reads, "holo aku la a pae ma Keanapou i Kahoolawe". (Fornander 1919:V:395)

12.) Fornander 1919:V:394.

12a.) The original Hawaiian text reads, "Kau mai la ia ma ka waa mai Kohala mai a kau i Keanapou i Kahoolawe". (Fornander 1919:V:221)

12b.) Fornander 1919:V:220.

13.) "Many a time your writer fished in the lau apoapo [net fishing from a canoe] from Kananapali to Kealia [Maui], all around the island of Lanai and on the leeward side of Kahoolawe, from the canoe landing of Kanapou that is facing Makena and on to the point at Ke-ala-i-Kahiki where it dips into the sea." (Kahaulelio ms.p.6; Feb. 28, 1902, Kahaulelio's manuscript is on file at the Bishop Museum Archives, for a translation of this section of Kahaulelio's manuscript see Appendix L)

14.) Like the story of Kekapailiula, the legend of Kalaepuni is considered a *ka'ao* (which Pukui and Elbert define as a "Legend, tale, novel, romance, usually fanciful; fiction". Pukui & Elbert 1971:108) as opposed to a *mo'olelo*, which is considered a more historical narrative. Martha Beckwith explains the distinction between these two terms by stating that; "Hawaiians use the term *kaao* for a fictional story or one in which fancy plays an important part, that of *mooolelo* for a narrative about a historical figure, one which is supposed to follow historical events. Stories of the gods are *mooolelo*. They are distinguished from secular narrative not by name, but by the manner of telling. Sacred stories are told only by day and the listeners must not move in front of the speaker; to do so would be highly disrespectful to the gods. Folktale in the form of anecdote, local legend, or family story is also classed under *mooolelo*...Nor can the distinction between *kaao* as fiction and *mooolelo* as fact be pressed too closely. It is rather in the intention than the fact. Many a so-called *mooolelo* which a foreigner would reject as fantastic nevertheless correspond with the Hawaiian view of the relation between nature and man. A *kaao*, although making adroit use of traditional and amusing episodes, may also proceed quite naturally, the distinction being that it is consciously composed to tickle the fancy rather than to inform the mind as to supposed events." (Beckwith 1970:1-2)

15.) The folklorist Martha Beckwith groups the legends of Kalaepuni and Kalaehina within the class of tales she refers to as "Kupua Stories". (Beckwith 1970:421-423)

16.) Keawenuiaumi, *ali'i nui* of the island of Hawai'i, was the second son of Umi, one of the most renowned chief of that island. Tracing back through the Hawaiian chiefly genealogies Fornander placed the beginning of Keawenuiaumi's reign at somewhere around 1530 A.D.. Fornander based his calculations on a period of thirty years for each

generation. (Fornander 1969:108). J.F.G. Stokes has revised these figures, using an average of 20 years per generation. (Stokes 1933:48-63 and Hommon 1976:124,311) His estimates would place the events of the legend sometime around A.D. 1650.

It must be remembered, however, that the story of Kalaepuni is referred to as a *ka'ao*, a fictional narrative. Kalaepuni's name does not appear in more historical accounts (*mo'olelo*) of the events of Keaweami's time. It seems likely, therefore, that the composer (*haku*) of the story placed its incidents within the reign of a historical ruler whose name would have been well known to his listeners.

17.) Fornander 1918:V:198-201.

18.) Fornander 1969:100.

19.) Kalaepuni was carried to Kanapou by the same currents which today cast driftwood upon her shores.

20.) The word used in the original Hawaiian is "ai" (or more properly, 'ai), which Pukui and Elbert translate as "Food or food plant, especially vegetable food as distinguished from i'a, meat or fleshy food: often 'ai refers specifically to poi." (Pukui & Elbert 1971:8) It is possible that when Kalaepuni asks "Have you any food?", he is actually asking, "Have you any poi?"

21.) These are two districts on the island of Maui. The first rests directly across the Alalakeiki channel from Kanapou, while the second lies near Lahaina. These words of the legend are echoed by a historic account of Kaho'olawe given in 1858 by William Allen, who wrote; "These natives do not live here all the year, but are here most of the time except during the rainy season, their food (Poi) they bring from Maui after disposing of their fish in Lahaina." (the letter from which this excerpt is taken can be found in the R.C. Wyllie Collection at the Hawaii State Archives (Appendix R))

22.) The epithet *Kaho'olawe 'ai kupala*, "Kaho'olawe, eater of *kupala*." has been mentioned previously (see Chapter I, note 5), as has the possibility that the island's association with *kupala* may date to the historic period, following the abandonment of much of the island's upland field system. Certainly, in times of hardship, the prehistoric peoples of Kaho'olawe were probably reduced to eating *kupala*, but all evidence indicates that it was not one of their staple crops, particular since, if it is eaten in any quantity, *kupala* causes diarrhea. A historic example of the effects of a steady diet of *kupala* can be found in Samuel Kamakau's account of Kalaniopu'u's attack on Lana'i (which took place not long after his raid on Kaho'olawe). "While Kalaniopuu stayed on Lanai the land suffered from a lack of food because

of the great number of his men. There was nothing to eat but *kupala* and because they ate so much of this, they became sick. Therefore, the war on Lanai was called Kamoku-hi' [which is the name of the kind of sickness induced by a diet of *kupala*]."(Emory 1969:23) The old couple's statement to Kalaepuni that; "The only food that grows here is the *kupala*." may have reflected the situation on Kaho'olawe in the late 1800s at the time the legend was written down (Keene 1983:38), or, more likely, it may have been part of the ruse to get Kalaepuni to eat the dried fish and thus make him thirsty enough to go down into the well.

23.) The phrase used in the original is, "*aia a ua ka ua naulu*". *Ua* is the Hawaiian word for rain, while *naulu* is the name for a type of rain which Pukui and Elbert define as a; "Sudden shower".(Pukui & Elbert 1971:243) Paul Nahaololua, the governor of Maui, who visited Kaho'olawe in 1857, wrote that; "The old residents stated that there were *naulu* rains (rains without clouds) sometimes on Kaho'olawe, when the trade winds blow." (Nahaolelua's letter dated 12/7/1857 is on file in the Interior Department Land File at the Hawaii State Archives (Appendix Q)) In his list of the traditional Hawaiian names for the various winds, Charles Hyde refers to *naulu* as; "Heavy mists; shower of fine rain, apparently without clouds or with but a single cloud".(Kent 1986:441) *Naulu* is again referred to as a wind in the "Legend of Kuapakaa", also found in Fornander's Hawaiian Antiquities. Here, the boy Kuapakaa, in chanting the names of the winds of Maui and Moloka'i, states that "The *naulu* is of Kanaloa".(Fornander 1918:V:I:100) He is probably referring to Kanaloa, a land area of Makena, Maui, but might also be referring to Kaho'olawe using one of its ancient names. The same chant can be found in an article by J.H. Kanepuu entitled "He Moololo no Pakaa", published in the Hawaiian language newspaper Ke Au Okoa, on November 14th, 1867 (a translation of this article can be found in Ms. SC Sterling Box 3.12, in the Bishop Museum Archives). It is evident from the descriptions found in these various sources that the rains described by the old couple should not be translated as "a rain storm", but as a "Sudden shower" or as "rains without clouds".

24.) Fornander 1918:V:201-205.

25.) Nahaolelua's letter is in the Interior Department Land File at the Hawaii State Archives:12/7/1857. (see Appendix Q)

25a.) Lot Kamehameha was the brother of the reigning King, Kamehameha IV. Six years later Lot would himself be crowned Kamehameha V.

26.) A typescript of Kahaulelio's original text, as well as a translation into English by Mary Pukui, are preserved in the

Hawaiian Ethnographic Notes Collection at the Archives of the Bernice P. Bishop Museum. Those sections of Kahaulelio's work which deal with the island of Kaho'olawe have been collected together in Appendix L.

27.) "The sea all around Kahoolawe has been fished in by your writer with his parents and grandparents." (Kahaulelio ms.:32; April 18, 1902, see Appendix L).

28.) Puuiaiki's name can be translated as meaning "hill of the little marine animal". Given the events of the tale, this name seems to link Puuiaiki with the opihi who saved him from the sea, as well as with the hill of Pu'u o Moaulanui (or possibly with the smaller cinder cone of Pu'u o Moaulaiki, which can be said to resemble an opihi).

29.) The original Hawaiian text renders this as "makaula".

30.) Moaula, "the little hill standing on Kahoolawe and that is the only mountain of that land", would appear to refer to Pu'u o Moaulanui, the highest peak on the island. It is also possible, however, that the legend is speaking of Pu'u o Moaulaiki, the small cindercone on the slopes of Pu'u o Moaulanui which in ancient times appears to have been the site of a shrine. (see Chapter IX)

31.) This story motif, of a man being swallowed by a shark and then killing it from the inside, is also encountered in the "Legend of Punia" recounted in the Fornander Collection of Hawaiian Antiquities (Fornander 1916-19:V:294-301). The similarities between certain incidents in the Punia legend and parts of the story of Puuiaiki are striking. Compare for instance this passage from Kahaulelio's tale; "Then Puuiaiki spoke, "If you bite me, I'll live. If you swallow me whole into your stomach, I'll die." to a the following passage from the Punia legend; "With this Punia proceeded to the beach and when he got directly over the cave, where Kaialeale [the shark] was sleeping, he called out: "If when I dive down Kaialeale should bite me and I die and my blood should come to the surface, then my mother will see it and I shall come to life again. But if when I dive, Kaialeale should open wide his mouth so that I am swallowed whole, I shall die and will never be able to come to life again."" (Fornander 1916-19:V:296) Like Puuiaiki, Punia kills his shark from the inside by scraping it with an opihi shell, and also like Puuiaiki, Punia "became bald, from being in its belly". (Fornander 1916-19:V:298)

32.) In the "Legend of Kaulu", also found in the Fornander Collection (Fornander 1916-19:IV:522-533 & V:364-371), Kaulu's brother Kaholeha (or Kaeha) is swallowed by a shark. On emerging from the belly of the beast, Kaulu, like Puuiaiki

(and Punia), discovers that "his hair has all fallen off making him bald headed". (Fornander 1916-19:IV:528)

The fact that so many of the elements which make up the story of Puuiaiki appear in other, more well known, legends suggests that Kahaulelio's grandparents (or whomever composed the tale) employed the ages old story telling technique of building a new myth from the bones of older ones.

33.) The word used in the original Hawaiian text is "kupua". Interestingly enough, this is the same term used in Fornander's texts to describe Kalaepuni. From here on in the story, the events which befall Puuiaiki echo very strongly those of the Kalaepuni legend.

34.) In the legend's description of the open well with the stones piled beside it, one can almost hear faint echoes of the Christ myth with its open and empty tomb.

35.) Kahaulelio ms.:100-103; June 27, 1902, see Appendix L.

36.) In his book Geology and Ground-Water Resources of Lanai and Kahoolawe, Hawaii Stearns presents a table listing the "Seven dug wells" which once existed on Kaho'olawe. Among these is included a well dug by Hawaiians at Kanapou, which Stearns describes as "Filled in". (Stearns 1940:130) On the geologic map of the island which accompanies this text, Stearns marks the location of a "Dug well" within the valley of Kanapou. It lies just back from the beach and against the cliffs at the southern edge of the valley. (Stearns 1940:120) It is uncertain whether the original site of the old well was pointed out to him by Jack Aina (a ranch hand who had worked on Kaho'olawe since the early 1900s and who served as Stearns guide during his visit to the island), or whether Stearns simply marked on the map where he thought the well might have been.

37.) In his discussion of Kaho'olawe's water resources, Stearns mentions that; "Two seeps were found in the cliff at Kanapou Bay on March 7, 1939." (Stearns 1940:131) This would indicate that, although the well itself has been buried, there were still sources of potable water within Kanapou.

Among the private papers of Inez Ashdown held at the Hawaii State Historic Preservation Office is a letter addressed to Jane Silverman dated October 12th 1975 and labeled "Kahoolawe, Heiau & other structures". Attached to this letter is a sketch map of Kaho'olawe. On this map Ashdown records the place name "Punawai Honu or Huna". She draws a line from this name to a point along the cliffs just east of the head of Kanapou bay. It seems likely that this place name refers to a brackish water spring, for one possible translation of *punawai* is "water spring". (Pukui & Elbert 1971:328) The word *honu* can be translated as "turtle" (Pukui & Elbert 1971:74) and *huna* as "secret" or

"hidden". (Pukui & Elbert 1971:85) In the text of this letter Ashdown writes; "It seemed that the paved trail at Hakioawa [built during the ranching period] was far easier travel toward the water spring at Kanapou, Puna Wai Honu."

On a 1977 map of the island Ashdown makes no mention of "Punawai Honu or Huna", but identifies a spot at the head of Kanapou as "PUNA PEE", literally "hidden spring". Whether this is an alternate name for the same spring, or an entirely different water source is unknown. It is also impossible to say whether these are traditional names or names given by Hawaiian cowboys working for the cattle ranch owned by Ashdown's father, Angus McPhee.

38.) Fornander 1916-1919:V:200.

39.) Missionary Letters Vol.II:1644-45.

40.) It is Martha Beckwith who, in her book Hawaiian Mythology, links Kalaehina, Kalaikini and Kaleikini, and reveals them as different names for the same mythical figure. (Beckwith 1970:421) In a letter to Beckwith written by Joseph Emerson, and now on file at the Bishop Museum Archives, Emerson introduces the legendary figure of Kaleikini. "Ka-lei-kini is a famous name in Hawaiian mythology and one to whom I must call your attention, now that you are near the scenes of his operations [Puna]. He was a kupua, demigod, who went around Hawaii obsessed with the idea of making a name for himself by destroying or changing whatever had been done by other kupua." (Emerson's letter to Beckwith, dated Dec. 10, 1913, is held at the Bishop Museum Archives, Ms. Grp. 125, Box 1.11, letter 4)

41.) In a legend told by L. K. Kalawe of Kapoho, Puna and recorded both in the original Hawaiian and in English by Laura Green in her book Folk-Tales from Hawaii, Kalaikini is said to have created, "the blow-hole which is to be found at Kupahua, Puna, and which still proclaims his name - "The blow-hole of Kalaikini."" (Green 1928:15) In a footnote to this account, Martha Beckwith, who edited Green's book, wrote that; "When I visited it on May 16, 1914, there was little spray, but the waves sucked in with a cracking sound. The natives say that formerly the salt spray used to ruin the vegetable patches along the cliff until Kalaikini checked it with logs of Kauila wood, which they assert are still to be seen in the hole. Others say that this was a mischievous act done for no good." (Green 1928:15)

When, in March of 1853, the French naturalist Jules Remy visited the village of Hoopuloa on the western shore of the island of Hawai'i, he was told a similar story of the exploits of Kalaikini (Kaleikini). An aged native of the region named Kanuha related to him the following "Legend of Kaleikini". "He was a chief of the olden time. On the seashore between Kaalikii and Pohue, the waves were engulfed

beneath the land, and shot into the air by a natural aperture, some fifty feet from the shore. The water leaped to a prodigious height, disappeared in the form of fine rain, and fell in vapor over a circuit of two leagues, spreading sterility over the land to such an extent that neither kalo nor sweet potatoes could be grown there. The chief Kaleikini closed the mouth of the gulf by means of enormous stones, which he made the natives roll thither. It is plainly seen that this blowhole has been closed by human hands. There still remains a little opening through which the water hisses to the height of thirty or forty feet." (Remy 1868:34-35)

42.) Another legend, recorded by Kilinahi Kaleo of Hana, Maui in the November 18th, 1865 issue of the Hawaiian language Newspaper "Kuokoa", and later translated by Thomas Thrum and published in his More Hawaiian Folk Tales, speaks of Kaleikini stopping up the blowhole of Puhi o Mokuhano near Kauiki in Hana. "A certain blow-hole is at its front [the front of Kauiki hill] that is sounded by the reef-wind of Mokuhano. Its principal outlet of sound was closed up entirely with kauila spears, the strange work of a certain chief named Kalaikini. (Those spears have so remained to this day.) Over two hundred years have passed since then." (Thrum 1923:68) It is interesting to note that in both cases the puhi was stopped up with logs or spears of kauila wood.

43.) Document 1126 on file at the Hawaii State Survey Office. See Chapter II, note 30 for a full description of this map and its possible origins.

44.) On his 1917 map of Kaho'olawe, J. Kauwekane also mentions Kohe o Hala as being the site of a blowhole. (Kauwekane's map is presently on file at the Hawaii State Archives, Map G4382.K3, 1917, H38, .F6)

45.) This quote is taken from an undated letter to "Angus", prefaced with the note; "Translations, as we used them". The letter is on file at the Bishop Museum Archives. Also at the Museum archives are a collection of notes entitled "Kahoolawe Place Names: Ashdown". These few stapled pages are prefaced by the words; "Typed from photocopy of original manuscript written by Inez Ashdown, 1976. Copied precisely as written.". Ashdown herself introduces this list of place names by writing; "Place names on Kahoolawe (according to list sent; plus what was taught to me from 1908 at Ulupalakua and 1916 by Eben Parker Low, Louis von Tempski and Jack Aina and other paniolo." She refers to Kohe o Hala in the words; "Just beyond, and Hakioawa side of Lae o ka Ule is Kohe o Hala which was a womens place & has a legend associated with Pohaku Ule & the blessing of conception of the ova & sperm or Twin Waters of Life."

46.) Pukui, Elbert & Mookini 1974:127.

47.) Ashdown Papers on file in the Maui Historical Society, Island of Death May 26, 1967:2. In a letter to E.H. Bryan, geographer at the Bishop Museum, Ashdown stated that; "Secondly, it [Kaho'olawe] was a kind of Mecca to which barren women went to pray by Pohaku Ule in the sea by the cliff of Hakioawa." (a copy of this letter to E. H. Bryan, dated June 1976:3, is kept among the Ashdown Papers on file in the Maui Historical Society)

In another letter, dated 1977, this time to Captain Crockett, then Navy commander in charge of Kaho'olawe, Ashdown wrote; "The names nearby, Kohe-o-Hala and Lae o ka Ule with the Pohaku Ule below where women prayed for fine children, are associated with this idea ["praying for children and youth, health etc.."], along with Pali Ka-la-pu surrounding Kanapou to Lae Halona." (this quote is taken from page 5 of the letter, a copy of which is held at the Hawaii State Historic Preservation Office).

48.) In "He Moololo No Molokini", or the "Myth Concerning Molokini", recorded by Jos. K. Kahele Jr and found in Abraham Fornander's Collection of Hawaiian Antiquities and Folk-Lore (Fornander 1916-19:V:III:514-521), is told the story of Puuinaina, a mo'o goddess whose parents placed her on Kaho'olawe, then known as Kohemalamalama. Puuinaina becomes enamored of Lohiau, paramour of the fire goddess Pele, and for her indiscretion is chopped in half by Pele, her head forming the islet of Molokini and her tail the hill of Pu'u o Lai on Maui. It seems likely that the name of Ashdown's abused heroine, Inaina, is taken from Puuinaina of Kahele's legend.

It is also interesting to notice the similarities between the Inaina legend and the legend of Ho'awa, also related by Inez Ashdown, and quoted on page 46 of Chapter II.

49.) The original version of this story which Ashdown says was "translated by Kahu Edward Kapo'o" has yet to be found. Among the Ashdown papers at the Maui Historical Society is a similar, though slightly different, story entitle "Rape of Kaho'olawe", which she prefaces with the note "January 20, 1969; Written by me for Pilahi Paki at Punalu'u, Oahu". This is very definitely a work of Ashdown's own imagination; a modern fairy tale in which she intertwines the islands many place names, as well as names and incidents taken from traditional tales for the purposes of getting across her own moral. The similarity between this "modern" tale and the story quoted above cannot but cast a shadow of doubt on the authenticity of the Kohe o Hale "legend". Until the original of this tale can be found and authenticated, its position as a traditional narrative must remain in question.

50.) These three structures were initially discovered during the 1976-80 archaeological survey of Kaho'olawe and were at that time grouped together and given the single site designation. They became known as Site 158, Features A, B and C. The "National Register of Historic Places Inventory -- Nomination Form" for Site 158 lists them as "two possible kilo, or places from which to observe schools of fish in the ocean, and a shelter". It describes Features A and B respectively as "a crude, flat-surfaced cairn" ("roughly square, measuring 1.2 by 1.6 meters, and stands between 20 and 40 centimeters in height"), and "a crude mound of rock" ("1.2 by 1.3 meters, stands between 30 and 65 centimeters high"). To the author, who visited the site in March of 1992, these structures appeared more like low C-shaped windbreaks facing the sea. Feature C, which the author noticed but did not examine in detail, is described on the nomination form as "a crude L-shaped structure measuring 1.6 by 2.0 meters and standing between 25 and 60 centimeters in height", facing away from the sea.

51.) Pukui, Elbert & Mookini 1976:39. Another area which at least one tradition refers to as a lookout point is Kaohe. This spot is situated on the southeastern slope of Pu'u Moaulanui northwest of the beach at Kanapou. The first mention we have of Kaohe is in 1917 when J. Kauwekane identified it on his map of Kaho'olawe. (Kauwekane's map is presently on file at the Hawaii State Archives, Map G4382.K3, 1917, H38, .F6)

Translated literally, Kaohe means "the bamboo". Inez Ashdown, writing in a letter to Mary Kawena Pukui in 1960, refers to it as; "Ka-ohi (not ka-ohe) of legend, a chief was held there but escaped his enemies. Here is where the later government prisoners used to watch the two currents before diving in and swimming to Maui." (Ashdown's letter to Pukui, dated 27 March, 1960, is kept among the Ashdown Papers at the Maui Historical Society. This quote is taken from page 5 of the letter.)

52.) This was recorded by the 1979-80 archaeological survey as Site 129.

53.) Stokes 1913:11.

54.) Site 129, Feature C

55.) Site 129, Feature B. Just to the west of the lower terrace is a small, roughly semicircular terrace (Site 129, Feature D) with a large flaked stone set just back of it. This may have been associated in some way with the shrine. Upslope, above the second terrace is what appears to be a small C-shaped shelter (Site 129, Feature A). This looks very much to be a temporary campsite, for there is a scatter of shell midden extending downslope from the structure and a

large rock which appears to have been used as a grinding stone resting next to it.

56.) In line fishing for squid or octopus, the ancient Hawaiians used fresh cowrie shells tied to the hook as bait. The cowrie was a favorite food of the octopus and these beautifully patterned shells were highly prized by local fishermen.

57.) Site 130.

58.) The site map included with the "National Register of Historic Places Inventory -- Nomination Form" for Site 130 shows two upright stones resting atop this terrace (Feature A). On visiting the site, the author could only clearly distinguish one, standing at the center back.

59.) Site 130, Feature C.

60.) Site 130, Feature D.

Chapter VI

KAMOHIO

*"Then we went to what had apparently been
a fish heiau of great importance."*

(Stokes "Kaho'olawe Notebooks" 1913:14)

On March 5th, 1913, John F.G. Stokes, an archaeologist with the Bishop Museum's scientific expedition to the island of Kaho'olawe, made the following entry into his field notebook.

Mch 5. Rode to large bay on S. side near Puu Koa. Descended the cliff & travelled along the waters edge by swimming & climbing. Found about 20 caves, only 4 of which went in any depth. Three of these it is hoped we will be able to examine in detail. One of the latter was partially paved with smooth waterworn stones. On the N side was a mound or terrace built up with an edge of similar stones. Above it to the N was a smaller terrace, and above this a third. Back of the 2nd terrace was a kind of shrine which could not be investigated for lack of time.¹

The shrine which Stokes stumbled onto that morning proved to be one of the most interesting discoveries ever made in Hawaiian archaeology. It was also one of the most unusual. Unlike the numerous other ancient religious structures which, in Stokes' day, still dotted the Hawaiian landscape, this small set of terraces, tucked into the rainshadow of the overhanging cliff, had survived virtually untouched by the passage of years. With the exception of a thin layer of dust and rubble, sifted down from the cliff face above, the site looked exactly as it had when the last Hawaiians worshipped there, almost a century before. The sites sheltered location, in the lee of the cliff, had combined with Kaho'olawe's exceptionally dry climate to preserve the wood, leaves and other organic materials which had been left as offerings at the shrine. Almost nowhere

else in the Hawaiian islands had this "perishable" evidence of traditional religious practices survived.²

An idea of what this site looked like in 1913 can best be gained by reading Stokes' further description of the shrine, which he recorded in his notebook on his return to the bay five days later

Mch 10. Started early in the morning in Gay's launch & went round the W. end of the island, stopping in Puu Koae Bay.

In this place I went into a cave at the head of the bay & found parts of a canoe³, & then into another cave which gave no return.

Then we went to what had apparently been a fish heiau of great importance.⁴ It was originally a large rock shelter in the front of which, to the N. of the middle had been set up a wooden idol and terraces of stone built up to it.

The terrace to the south was the largest and lowest, and was mostly inside the shelter. Near the W. end were a number of sticks set up and two pointed stones wrapped in tapa. There were two piles of fern, which Forbes said did not come from Kahoolawe. Rubbish, consisting of pieces of sugar cane, whole and chewed up, broken stones from the roof, thick dust, shells, awa root & coral made a heap reaching to the roof. Forbes investigated this and found the head of a wooden idol⁵, a sinker, a needle of fish bone & other things.

Investigated the second platform, outside which was on the talus level with the roof. At the SE corner was smooth stone set up in tapa, resembling roughly a shark. Back of this & close against the cliff was a wooden idol buried almost completely⁶. Tapa was wrapped around this up to the forehead. Back of this again on a slope falling into the recess behind were three long ala⁷ set upright. In front of them was found a piece of rotted tapa. The wooden idol was practically buried in fern, and around it were a great number of *Cypraea mauritiana*. Alongside to the E were a number of sticks in the dirt, one of which had been intended for a kahili. I dug a trench across this platform towards the idol, and found many fragments of fishbones, skin, sugarcane leaves small smooth stones & part of a bone fish hook. A carved spine from an echinoderm was found near the shark god at the corner.⁸

Inside the recess back of the platforms, William Goodwin or Kane found several bullock's

shins which had been cut down probably in process of fish hook making. Also the broken outrigger of a canoe.

Work had to be suspended at 4 pm as the launch had to leave for Lahaina."⁹

The bay within which Stokes discovered this terraced shrine is known today as Kamohio.¹⁰ Situated along the southern coast of the island of Kaho'olawe, and rimmed with steep cliffs, this deepcut bay possesses no true beach. Along its western shore, however, near the head of the bay, an old landslide has collapsed part of the cliff face, forming a sloping jumbled of rockfall between the cliff and the sea. The southern tale of this talus slope partially covers the mouth of a large sea cave, protecting it from the action of the surf. It was within this cave, and along the rocky slope flanking it, that the shrine was built.

The Kamohio shrine appears to have consisted originally of a series of five stone faced terraces. The largest and lowest of these lay within the rock shelter itself, while the other, smaller terraces ascended the adjacent edge of the talus in a series of steps. Stokes' sketch maps of the site also show the existence of a "hallway"; a level area within the shelter, south of the lower terrace. This was partially paved with smooth stones and may have represented an activity or living area. The terraces themselves appear to have served as altars supporting upright stones wrapped in *kapa* and, in one case, as Stokes' narrative indicates, a wooden image. Atop these terraces had been piled layers of *pili* grass and fern, as well as numerous offerings.¹¹

Within a week of leaving Kaho'olawe Stokes was back, this time with the tools required to conduct a full scale excavation at the shrine.¹² Contrary to what might be expected, Stokes does not appear to have dug into the floor of the cave in the area of the "hallway", but instead concentrated his efforts in clearing the dust, rubble and cultural remains from off the various platforms. Judging

from the immense number of fishhooks, in all stages of production, found at the shrine, as well as the presence of tools used in their manufacture, Stokes concluded that;

"the shelter was the abode or workshop of many successive Kahuna Kamakau or fishhook-makers. Every craft had its guardian deity to which of course oblations were made. As time progressed the reputation of the establishment's products spread to the other islands, until fishermen from the islands of Maui and Hawaii resorted to the spot, making offerings to the fish gods and bartering for hooks."¹³

Stokes also found evidence, in the form of iron nails and an offering of tobacco wrapped in a scrap of canvas, to suggest that the shrine was used into the early years of the historic period. It is unclear, however, when exactly the last traditional ceremonies were held at the at Kamohio bay shrine site. Hawaiian fishermen, particularly those living in the more rural districts, far from major population centers, often retained aspects of their traditional religious beliefs long after the old ways and the old gods were cast down by the *ali'i*. It is possible, therefore, that the shrine could have remained in use as late as the mid-1800s.

Stokes never wrote up the results of his excavations. It was not until the early 1930s that his work at Kamohio was published. At that time his fieldnotes and the artifacts he collected were re-examined by Gilbert McAllister, who presented Stokes' discoveries in a somewhat abbreviated form in his Archaeology of Kahoolawe.¹⁴

As McAllister himself notes; "Much interesting material was brought to the Museum from this shrine, but during the 17-year interval in which it lay in storage the collection became jumbled and somewhat mixed; some articles, including parts of a wooden image and a bundle of tapa, had been lost, and by 1931 the labels had all become illegible."¹⁵ Stokes' detailed notes, however, enabled the provenience of at least

some of these artifacts to be reconstructed. What remains of the artifacts and other cultural remains which Stokes removed from the Kamohio shrine site rest in the collections of the Bishop Museum.

When Stokes first discovered the small shrine in the bay of Kamohio, the cave and its associated terraces had been abandoned for over half a century. None of his informants appear to have been able to tell him anything about the site. Now, as then, we possess no reliable oral or written traditions directly associated with the shrine.¹⁶ We do, however, possess what may well be the site's traditional name.

On an early sketch map of Kaho'olawe, drawn around 1889, can be found, down along the island's southern shore, a place identified as the "Cave of Kunaka".¹⁷ The location of this "Cave", just inland of the islet of Pu'u Koa'e, suggests that it may lie somewhere along the western edge of Kamohio bay. The only two sizeable caves which are known to exist in this area are the shelter within which Stokes found parts of a canoe¹⁸, and the cave resting at the foot of the Kamohio shrine terraces.¹⁹ Considering the obvious importance of the Kamohio shrine, it does not seem unreasonable to suggest that the place name "Cave of Kunaka" may refer to the cave associated with this site.²⁰

Hawaiian tradition speaks of a historic personage named Kunaka, an *ali'i* of Waipio valley, Hawaii, who lived during the time of Moikeha, around the end of the 14th century. According to legend, Kila, Moikeha's son was adopted by Kunaka after having been abandoned by his brothers in Waipio.²¹ What relationship, if any, there may have been between the historic Kunaka and the cave on Kaho'olawe remains at present undetermined. It appears possible, however, that what we now refer to the Kamohio shrine site, may traditionally have been known as the Cave of Kunaka.

Between 1976 and 1980, as part of the island-wide archaeological survey undertaken on Kaho'olawe, the Kamohio

shrine site was once again visited by a crew of trained archaeologists. At that time it was discovered that a recent landslide had buried the site's upper terraces, covering them beneath a layer of rubble.²² Only the interior of the cave itself survived relatively undisturbed.

The "National Register of Historic Places Inventory -- Nomination Form" which was completed for this site recorded that;

"The 1978 field team located Stokes' backdirt pile and sifted much of it through 1/4-inch screens in the hopes of finding dateable materials. Only two pieces of basaltic glass were found, and these were dated by the hydration-rind technique [1671± 30 and 1673± 47 A.D.]. Although their provenience is unknown, they have given us a rough idea of the period of use of the site. Vegetal remains from the backdirt were also saved for identification, as were numerous fragments of charcoal. A comparative collection of charcoal samples of Hawaiian woody plants is presently being assembled, but as of this moment no identifications are possible. Twenty samples of charcoal from the backdirt were examined microscopically, however, and preliminary indications are that they are all from a single species.

Stokes' field notes indicate the presence of well-stratified deposits up to about a meter thick, and our 1978 inspection of the site demonstrated that much of the deposit is still intact and well-preserved, thus affording future researchers with the opportunity for detailed investigations.²³

In the years since the local organization known as the Protect Kaho'olawe 'Ohana gained legal access to the island of Kaho'olawe in 1980, various of its members have visited the Kamohio shrine site for religious as well as educational purposes. It has become traditional to stopping place on their annual round the island canoe journey undertaken as part of celebrations marking the close of the Makahiki season.

On the first of February, 1991, members of the 'Ohana, paddling their outrigger canoes around the island, broke their journey at the bay of Kamohio, pausing to rest in its sheltered waters, and swam ashore to visit the ancient shrine

which lay at the foot of the cliffs. On approaching the shrine they noticed piles of freshly dug earth scattered near the entrance. Further investigation revealed that a series of pits had been dug into the floor of the cave, apparently by individuals hunting for artifacts.

The 'Ohana members had only a brief time to explore the site before having to depart the cave and continue their journey. It was evident, however, even from their cursory examination, that the looters had caused considerable damage to the shrine.

Over the past half century the relative inaccessibility of the Kamohio shrine site, located as it was on an uninhabited island used only for bombing practice, has served to protect the site from desecration. In September of 1990, however, a halt was called to the bombing of Kaho'olawe, making the island, in the minds of most people, less dangerous and more approachable.

Information on the Kamohio site and the artifacts which were recovered from it has long been available to the general public through McAllister's Archaeology of Kahoolawe, which contains a map showing the location of the site, a plan of its internal features and line drawings of its various artifacts. It seems likely that the looters made use of this publication in planning their excavations. It also seems likely that they were lured to the site by the hope of finding either bone fishhooks and/or carved echinoderm spine images similar to those on display in the Bishop Museum.

The fact that this was a professional job, planned in detail beforehand, and not simply a spur of the moment event, is evidenced by the looters' use of fine mesh screens to sieve the dirt from their trenches and thereby catch any small artifacts that may have missed the notice of the digger (a common technique used at archaeological sites). By closely examining the backdirt piles left by the pothunters, it was possible to differentiate the primary pile of fine dirt which had been sifted through the screen from the heap

of shells, stones and other larger material tossed out of the screen once it had been sorted for artifacts.

Among the items visible in the looters' backdirt piles were various marine shells, bits of coral, stones, and organic materials. All of these items could have provided information valuable to understanding the former use of the site, if they had been excavated systematically. Dug out and tossed aside randomly, as they have been, these have lost the what informational value they once possessed.

The extend of the excavations and the manner in which they were conducted suggests that the looting was premeditated and that the vandals were well equipped for their task. It appears that they came ashore from a boat, which most probably lay anchored in the bay for one or more days. They carried with them digging implements and wire mesh screens which they set up near the entrance to the cave. They obviously knew what they were looking for and felt no compunctions at despoiling a sacred site. These pothunters may either have been themselves collectors of Hawaiian antiquities attempting to add to their collections, or entrepreneurs hoping to sell what artifacts they might find to commercial dealers or private collectors. Their actions not only caused the loss of valuable historic information, but resulted in the desecration of an important religious site.

In January of 1992, members of the Protect Kaho'olawe 'Ohana, working with archaeologists, helped to repair the damage done to the shrine at Kamohio and restore the site, as much as possible, to its former condition. Yet, the threat of further looting remains. The desecration of the Kamohio shrine has shown that Kaho'olawe is no longer protected by her isolation, and that her archaeological treasures are now at risk. If steps are not taken soon to further restrict and control access to the shores of Kaho'olawe, there exists the strong possibility that Kamohio, and other ancient site on the island, may again fall victim to vandals.

Notes

- 1.) Stokes 1913:10, see Appendix W.
- 2.) Among the organic remains thus preserved were 47 offering bundles wrapped in leaves or *kapa* and left atop the terraces. These were found to contain sugar cane stalks, ferns, *maile*, *lehua*, *awa*, bananas, *kukui* nuts, gourd, *pili* grass, tobacco, bamboo, *ti*, *hau*, coconut shell, canvas, a pandanus fruit lei, human hair and feathers, as well as other, less perishable materials such as cowrie shells, sea urchin spines, fish bones and scales, dog bones (and hair), coral and pieces of basalt.
Other artifacts found at the site include numerous fishhooks in various stages of manufacture, tools such as coral files and basalt awls used in fishhook making, one complete wooden image, as well as the head of another, and five sea urchin (echinoderm) spines carved to resemble temple images.
- 3.) This appears to be the cave recorded as Site 307 during the 1976-80 archaeological survey of Kaho'olawe. A full description of it can be found in the "National Register of Historic Places Inventory -- Nomination Form" for Site 307, on file in the Hawaii State Preservation Office.
- 4.) In his book, Archaeology of Kahoolawe, Gilbert McAllister recorded this cave and its associated terraces as Site 30. (McAllister 1933:13-20) It was renumbered, during the 1976-80 survey, as Site 306.
- 5.) As with all of the artifacts collected from Kaho'olawe by Stokes, this head of a wooden image is held within the collections of the Bishop Museum. This particular object was catalogued as artifact number C.03525.
- 6.) This wooden image, catalogue number C.08814, is also housed at the Bishop Museum. (see Appendix Y)
- 7.) 'Ala are waterworn volcanic stones. In this cases they are probably stones set up to serve as images of gods.
- 8.) This shrine appears to be the only site within the Hawaiian chain where carved echinoderm spine images of this type have been found.
- 9.) Stokes 1913:14, 16-17, see Appendix W.
- 10.) The place name Kamohio first appears on an undated map drawn by J.F.G. Stokes, possibly some time after his visit to the island in 1913. This map is held at the Bishop Museum Archives (HPF 2:8:11). It is not certain where Stokes obtained this name, but it may have been from one of his

local informants. Kamohio does not appear in Stokes' notebooks of his travels around Kaho'olawe. In these writings he refers to the bay as "Puu Koa Bay", naming it for the small islet of Puu Koa which lies just off the mouth of the bay.

The name, Kamohio, has been variously translated as "Weary-by-sun-exposure" (Lahilahi Webb, translating for Gilbert McAllister's Archaeology of Kaho'olawe, McAllister 1933:57), "the place of gusty winds" (Malia Lisquara, from an unpublished list of Kaho'olawe's place names held at the Maui Historical Society) and "the gust of wind." (Nathan Napoka, from his list of "Kaho'olawe Place Names", Napoka 1983:2)

11.) In the notes which Stokes made following his return to the Museum, sections of which are quoted by Gilbert McAllister in his Archaeology of Kaho'olawe, Stokes attempted to describe the overall physical appearance of the Kamohio site. His description gives an indication of the wealth of cultural material present at the shrine at the time of its first discovery.

"The cave consisted of a deep rock shelter, worn out probably by wave action, and later, before occupation, elevated a few feet. The talus from overhanging cliffs, above and on one side to the north, have flowed into the shelter, blocking the original entrance and giving the interior the appearance of a spirally ascending cave. The entrance on the south was approached by stone steps leading into a hallway, on the latter occupying the southern two-fifths of the shelter. This space had not been reached by the talus. Four platforms built on the talus corner covered another two-fifths of the area and bare talus the rest. The platforms were built up from 3 to 5 feet in front and faced with large sea-worn stones. They generally ended when their surface level met the slope of the talus at the back. They contained numerous layers (in grass, stone paving, etc.) and seemed to have been an accumulation or growth of many generations. The layers were composed of stones, dust, grass, fish bones, coral knives and files, human hair and bones, fire-sticks, stones used as idols, fern, charcoal, coconuts, tapa fragments, cooked fish, etc.... It seemed that most of the material apart from implements had been placed on the platforms as offerings to the many idols." (McAllister 1933:14)

12.) The record of this excavation comprises the second volume of Stokes Kaho'olawe field notebooks, the originals of which are on file in the Archives of the Bishop Museum. A complete typescript of both volumes has been included in Appendix W.

13.) McAllister 1933:17.

14.) McAllister 1933:13-20

15.) McAllister 1933:13. In the Bishop Museum's "Report of the Curator of Collections for 1939" (which is included in the Report of the Director for 1939) E.H. Bryan writes; "Jack Porteus, under the supervision of Kenneth P. Emory, sorted out fragmentary ethnological materials which were found in 1913 in a shelter cave on Kahoolawe." (Buck 1940:27) These "fragmentary ethnological materials" are obviously some of the remains excavated by Stokes, still unsorted twenty six years after they were taken from the island.

16.) In an unpublished article entitled "The Island of Death", Inez Ashdown refers to; "Kamo-hi-a Shrine, an underwater cave reached by swimming, was the former place where Ali'i, hiding from persecutors, took refuge. Its land entrance was under the heiau, and another part of that lava-tube formation below the sea contained a great burial cave." (this article, dated May 26, 1967, can be found among the Ashdown Papers on file at the Maui Historical Society. The quote related here is from page 2 of the article)

Ashdown gives no indication as to why she uses the name "Kamo-hi-a" for the shrine, instead of Kamohio, nor does she give a source for her statement that the "underwater cave" was the hiding place of 'Ai'ai. The legend of 'Ai'ai son of Ku'ula, related in Chapter II, does mention that 'Ai'ai hid in a cave following the death of his parents. That cave, however, was near his birthplace in the district of Hana, Maui, and not on Kaho'olawe.

Ashdown's description of a "great burial cave" lying beneath the heiau of Kamohio sounds very much like the alleged burial cave shown to Errol von Tempski by Jack Aina and whose location Ashdown places at various spots around the island. (see Chapter VIII, note 12)

On page 3 of her letter to E.H. Bryan dated June 1976, Ashdown mentions that; "The Fishing Shrine and Ko'a at Kamohia was where the kahuna of that Order taught fishing." (this letter can be found among the Ashdown Papers at the Maui Historical Society) It seems likely that Ashdown extrapolated this from Stokes statement that the Kamohio site was probably a fishhook maker's shrine. (McAllister 1933:17)

Although we are lacking in traditions related directly to the Kamohio shrine, we do possess one which is linked to the bay of Kamohio. Harry Kunihi Mitchell of Keanae, Maui has written down from memory and translated a chant entitled "Na Wai Puna o Kamohio no Kaho'olawe", "The Spring Waters of Kamohio on Kaho'olawe". As a preface to the chant, Mitchell writes; "I am revealing the story I heard from my Kupuna Kealoha Kuike about the priest Kahuna Kamohio and of his knowledge of his ancestors' teaching of creation and of the spring waters on the east end of Kamohi'o Bay on Kaho'olawe." (Keene 1985:64-65). In 1983, Mitchell told Thomas Keene that he had heard this chant "in his youth (perhaps around 1930) and again as a young man (c. 1940s)

from his Grandmother's cousin, Kealoha Kuike, and that he understands them to be ancient." (Keene 1985:33) The chant records that;

And from the east bend of Kamohio Bay
Spring forth the flowering waters of Kanaloa
Which is hidden high in the cliff

Appendix AB contains a full transcript of this chant. The author, however, has been unable to find any mention in the traditional literature of a *kahuna* named Kamohio.

A note in Inez Ashdown's annotated copy of Gilbert McAllister's Archaeology of Kahoolawe also seems indicate that there once existed a natural spring in the bay of Kamohio. This note, which can be found on page 16, reads; "It [Kamohio] had a Spring before". (A copy of this book is held at the Bishop Museum Archives)

17.) This map, labeled "Doc. 1126", is presently on file at the Hawaii State Survey Office. A detailed description as to its possible age and origins can be found in Chapter II, note 30.

18.) Site 307.

19.) Site 306

20.) The "Cave of Kunaka" does not appear among the place names recorded in 1917 by J. Kauwekane, whose father was a resident of Kaho'olawe and who himself appears to have grown up on the island. The absence of this place name might suggest that by Kauwekane's time the shrine at Kamohio bay had gone out of use, and that its name had not been passed on to the younger *kama'aina* of Kaho'olawe.

21.) "Shortly after this Kila was accused by his masters of breaking certain kapus. It was reported to his masters that he had eaten certain food that was kapued, being reserved for the gods. But Kila was entirely innocent of the charge, so in order to save himself he ran and entered the place of refuge within the temple of Pakaalana, a place where the violators of any kapu could be saved from punishment. As he entered the temple the priest again noticed the sign he saw on the cliff of Puaanuku. Upon seeing this the priest spoke to Kunaka, who was king of Waipio at this time and who had reigned ever since Olopana sailed for Tahiti, saying: "You must take that boy as our son. That boy is no commoner, he is a high chief." In accordance with the words of the priest, the king obeyed and he took Kila to be his son, and gave him the name of Lena." (Fornander 1916:IV:134-135) The importance of Kila and his father Moikeha to the story of Kaho'olawe is detailed in Chapter VII.

22.) On a recent visit to the site, undertaken in January of 1992, the author was able to identify the corners of some of these buried terraces.

23.) The above quote is taken from the "National Register of Historic Places Inventory -- Nomination Form" for Site 306.

Chapter VII

KEALAIKAHIKI

"As the place [Kahikinui] was too windy, Laamaikahiki left it and sailed for the west coast of the island of Kahoolawe, where he lived until he finally left for Tahiti."

(Abraham Fornander Fornander Collection of Hawaiian Antiquities and Folk-Lore 1916-17:IV:128)

If you stand on the peak of Pu'u o Moaulaiki, the second highest point on the island of Kaho'olawe, and look to the northwest, you will see spread out below you the white-capped waters of a broad channel. This stretch of sea, which separates Kaho'olawe from her sister island of Lana'i, bears the name Kealaikahiki, "the pathway to foreign lands".

The origins of this name date back far into the legendary past, to a time some 13 or 14 generations after the ancestors of the Hawaiians first came to these shores. In those ancient days, fleets of double hulled canoes began to appear off the coast of the Islands. These canoes carried strangers from lands far to the south, skilled navigators who had crossed the vast emptiness of ocean, bringing with them new chiefs and new gods. The homeland of these voyagers, the ancient chants tell us, was the legendary land of Kahiki.

Today we tend to equate Kahiki with the island of Tahiti, the largest of the Society Islands. This was not so in the past. The composers of the ancient *mele*, the songs, chants and chiefly genealogies in which are preserved the history of the Hawaiian people, appear to have used the term to refer to any of the numerous islands of Southern Polynesia. In time, the word Kahiki seems to have come to mean any foreign land.

The arrival of these foreigners from over the sea heralded the beginning of a new era in Hawaiian history. They were not only skilled navigators, but also powerful warriors who conquered or intermarried with the existing ruling families of the Islands to found new dynasties. It is

from these southern strangers that many of Hawaii's chiefly lines traced their descent.

The ideas and beliefs these newcomers brought with them also greatly influenced Island society, redefining the relationships between men, and adding new deities to the pantheon of local gods. The changes which accompanied their arrival did much to shape what we think of today as traditional Hawaiian culture.

These epic voyages, however, did not all take place in one direction. Once contact had been established, a number of Hawaiian chiefs, descendants of the ancient lines, embarked on journeys of their own, setting off to explore the newly rediscovered southern lands. For over a hundred years, the chants and legends tell us, double hulled sailing canoes made the journey back and forth between Hawai'i and Kahiki.

It was during this great voyaging period that the channel of Kealaikahiki gained its name. Down the center of this strait flows a swift, southwesterly running current. By steering their voyaging canoes into the slot between Lana'i and Kaho'olawe, the ancient navigators were able to catch the momentum of this current and use it to speed them on their southerly course. It was for this reason that the channel was given the name Kealaikahiki, which translates literally as "The road to Kahiki".

If one looks at a map of Kaho'olawe, one will see that the westernmost tip of the island also bears this name, though it is sometimes referred to as Ka lae i Kahiki, "The point to Kahiki".¹ Tradition speaks of many early voyagers who made their departure from this cape, launching their canoes from here out into the swift flowing waters of the adjoining channel.²

Evidence of Lae o Kealaikahiki's role as a stopping off point in the great journeys of the voyaging period is to be found in a number of the surviving chants and legends passed down to us through the generations. Many of these were collected by the nineteenth century scholar, Abraham

Fornander, and published in his Collection of Hawaiian Antiquities and Folk-Lore. In this work he refers to Lae o Kealaikahiki as; "the southwest point of Kahoolawe, a cape often made by people coming or going to Tahiti."³

Within the ancient *mele* collected by Fornander, the island of Kaho'olawe is referred to by a number of different names. The name by which she is known to us today, that of "Ka-ho'olawe", means literally "the carrying away (by currents)".⁴ Interestingly, this phrase matches exactly what would have happened to the voyaging canoes which set out from Lae o Kealaikahiki. They would have been carried away to the south by the channel's prevailing current.⁵

Another name for the island, which has come down to us through oral traditions, is Kahiki Moe, "the sun sets in Kahiki".⁶ In the ancient chants which relate the events surrounding the birth of the islands, Kaho'olawe is often spoken of as Kanaloa, the name of the Polynesian god of the sea and navigation.⁷ Though their origins and deeper meanings are uncertain, all of these names seem to hint at the significant role which voyaging played in the island's distant past.

Entwined within the legendary history of Kaho'olawe is the story of La'a, or as he later came to be known, La'a mai Kahiki, "La'a who came from Kahiki". The tale of La'a, and of his foster-father Moikeha, is told in a number of different chants and stories. Though the details of the legend vary, enough of its basic story line remains consistent to suggest that the exploits of La'amaikahiki have behind them a historic reality.⁸ This sense of La'a as a historic figure is so strong that at times it seems almost possible to unravel the thin thread of history from amid the tangle of romantic subplots and superhuman tales which through the generations have ensnarled it.

The story, as it has come down to us, begins with the departure of Moikeha (possibly Mo'i-keha, "lofty high-chief"), and his brother Olopana, from their ancestral home

on the island of Oahu. Sons of Mulieleali'i, a chief of the Kona district of Oahu, which encompasses what is now Honolulu, the brothers belonged to the ancient Nanaulu line of chiefs, descendants of the original settlers of these Islands.⁹

Moikeha and Olopana were, however, the youngest of their father's sons, and thus held no claim to their ancestral lands. The brothers decided, therefore, to leave the island of their birth, and set out in search of a place they might claim for their own. After journeying for a time among the various islands of the Hawaiian chain, they settled with their entourage in the valley of Waipio, on the big island of Hawai'i. Here Olopana married Lu'ukia, daughter of a chief of Kohala, and established himself as ruler over the district of Hamakua. His brother, Moikeha, assumed the role of his trusted lieutenant and personal advisor.

The brothers had dwelt only a short time in this lush, windward valley, when a hurricane struck Waipio. Heavy storms and flood waters devastated the valley's rich taro fields, forcing the local inhabitants to flee their homes or face starvation.

Finding himself ruler of an empty, ruined land, Olopana decided to put once again to sea and seek his fortune among the islands which lay far to the south, in the distant lands of Kahiki. His wife and brother agreed to accompany him on this journey, as did the others who had come with him from Oahu. Among these was a young child of chiefly descent, the adopted son of Moikeha. His name was La'a, "Sacredness".¹⁰

Olopana and Moikeha undertook their southern journey at the height of the great voyaging period. The pathway to Kahiki was well known to the men who manned their five double hulled canoes.¹¹ The trip, however, was not without danger. Before them lay 2,300 miles of open ocean. Their only guides were the winds and currents, the birds and the stars. It was with many offerings and prayers, therefore, that the canoes

of Olopana's small flotilla hoisted their woven pandanus sails and turned their prows to the south.

It is probable that Olopana and his followers steered a course similar to that described by anthropologist Peter Buck in his book Vikings of the Sunrise, which recounts what little we know of the navigational lore of the ancient Polynesian voyagers.

In sailing south from Ke Ala-i-Kahiki, the course was maintained by keeping the North Star (Hokupa) directly astern. When the Navel-of-Space (Piko-o-wakea) was reached, the North Star sank into the sea behind, but the star Newe was taken as the southern guide and the constellation of Humu was overhead.¹²

After a lengthy voyage, the company of canoes arrived safely off the shores of Kahiki. Olopana's chiefly qualities appear to have been quickly recognized, for the legends recount that he soon obtained sovereignty over the district of Moaulanuiakea.

In ruling this new land, Olopana seems to have relied much on the counsel of Moikeha, who remained his most trusted advisor. The brothers appear to have been close in another way, for, as was an accepted custom at that time, Olopana shared with his brother the favors of his wife Lu'ukia.¹³

Within the land of Moaulanuiakea, Moikeha built for himself a sumptuous residence and a stately temple, both of which he named Lanikeha, "Lofty heaven".¹⁴ The memory of Moikeha's home in Kahiki has been perpetuated here in Hawai'i, for a number of the Islands' high chiefs have taken it as the name of their own residences. The last of these was Kamehameha III, whose royal home at Lahina on Maui bore the name Lanikeha.¹⁵

Various authors have expressed differing opinions as to the true location of the legendary realm of Moaulanuiakea. The name of this district breaks down into the components Moa ula nui akea, which in modern Hawaiian would translate roughly as "the great broad red chicken".¹⁶

Teuira Henry, a historian who was born in Tahiti, lived for a time in Hawaii, and was well versed in the traditions of both these island groups, suggested that Olopana's realm, known to the Hawaiian bards as Moaulanuiakea, may in reality have been Mou'a 'ura nui atea ("Great broad red mountain"), the ancient name for the district of Tahara'a which lies on the northern coast of the island of Tahiti.¹⁷ In the language of Tahiti, the Hawaiian "l" is replaced by "r", and the "k" by "t".

A sense of the beauty of the Olopana's realm can be gained by reading Teuira Henry's description of Mou'a'uranuiatea, or as she more simply refers to it, Mou'a'ura (Moaula), "whose high cliffs of red clay render it conspicuous as it stands out in bold relief from the rich green of the neighboring plains on either side. Upon that great hill grows the *lehua* or *rata*, so well known to the Hawaiian, Tahitian and Maori, and from its summit is obtained a panorama view, so grand, of lofty mountain ranges, verdant valleys, plains and capes, and the deep blue sea, in the midst of which rises Hiro's surging rock of coral, while in the distant horizon looms up the picturesque Island of Moorea. And close down on the western side lies the well watered district of Pare, with forests of breadfruit, cocconut and orange, the cradle and birthplace of the great Oropaas of Tahiti, who extended their dominion over all the land, and from whom the Pomares, thrice royal, descended."¹⁸

In the last lines of her description, Henry refers to the family of great Tahitian chiefs who bore the title 'Oropa'a ("Strong warrior"), and for whom the district of 'Oropa'a was named. In Tahitian tradition, the land of Mou'a'uranuiatea is held to be the homeland of this line of chiefs, from whom the Pomare dynasty, the kings and queens who ruled Tahiti in the years following European contact, traced their descent. One cannot help but wonder whether Olopana, the voyaging chief of Hawaiian legend, who

apparently settled in this region of northern Tahiti, may have been the founder of this chiefly line.¹⁹

It was here, then, at Lanikeha in the land of Moaulanuiakea, that La'a grew to manhood.

The years passed quickly for the Hawaiian emigrants in their new home. Olopana, now an established and well respected chief, seemed finally to have found the life for which he had so long been searching. Such, however, was not the case for Moikeha. Fate was to require one final journey of him before it would fulfill his destiny.

Legends say that in time a cloud passed over the house of the two brothers. The cause of the trouble was a Tahitian chief by the name of Mua, who bore a secret love for Lu'ukia. Spurred by jealousy and envy, Mua slandered Moikeha in the eyes of his brother's wife. Unable to clear himself of these false accusations, Moikeha resolved to return to his native land. He directed his men to make ready his canoe, saying, "Let us sail for Hawaii, because I am so agonized for love of this woman [Lu'ukia]. When the ridgepole of my house, Lanikeha, disappears below the horizon, then I shall cease to think of Tahiti".²⁰

Accompanied by a small party of chiefs, retainers and relatives, Moikeha set sail for Hawai'i. La'a, however, remained behind at Lanikeha and was adopted by Olopana as his heir and successor.

Sailing north under Orion's belt, Moikeha and his companions came at last within sight of the island they had left so many years before. As they approached the shores of Hawai'i, the prophet Kamahualele, "Child of the flying spray"²¹, stood in the prow of the canoe and chanted a *mele* which has survived down to the present day.

Here is Hawai'i, the island, the man,
A man is Hawai'i - E.
A man is Hawai'i,
A child of Kahiki.
A royal flower from Kapaahu,
From Moaulanuiakea Kanaloa,

In his chant, Kamahualele names the places which Moikeha and his followers have left behind them in Kahiki. He goes on, in its last lines, to predict the future which awaits them.

O Moikeha, the chief who is to reside,
 My chief will reside on Hawaii - a -
 Life, life, O buoyant life!
 Live shall the chief and the priest,
 Live shall the seer and the slave,
 Dwell on Hawaii and be at rest,
 And attain to old age on Kaua'i.
 O Kaua'i is the island - a -
 O Moikeha is the chief.²²

As the fleet coasted along the shores of the Islands, various of Moikeha's companions requested that they be allowed to disembark and established their homes at the different localities which caught their fancy. Many of these places retain today the names of men from Moikeha's canoe. "Thus were named the land of Moaula in Kau, Hawaii, the capes of Haehae and Kumukahi in Puna, the district of Honuaula on Maui, capes Makapuu and Makaaaoa on Oahu."²³

After passing up through the Hawaiian group, Moikeha and the remnants of his crew arrived one evening off the island of Kaua'i, and dropped anchored in the bay of Wailua. Early next morning, Moikeha went ashore and was cordially received by the chiefs of the district. Here he was allowed to make his home. Here too he took for his wives Hooipoikamalanai and Hinauu, the daughters of Puna, the *Alii nui* (high chief) of the island. In time, with the death of his father-in-law, Moikeha acceded to the chieftainship of Kaua'i.

Having residing for many years at Wailua, Moikeha felt a strong desire to see once again the foster-son he had left behind in Kahiki. Being now *Ali'i nui*, Moikeha was far too important a personage to attempt such a journey. Instead, he summoned his youngest son, Kila, "Strong"²⁴, and entrusted him with the mission of bringing La'a back to the land of his birth.

Kila was accompanied on his quest by his father's old companion, Kamahualele, who served as chief navigator, reading the chart of stars which would guide them on their journey. When all was in readiness, Kila and his crew launched their canoe into the surf, and lifting its sails to the wind, retraced Moikeha's old path down the length of the island chain and south across the great ocean to Kahiki.²⁵

After many weeks at sea, Kila and his companions arrived at last off the coast of Moaulanuiakea. Beaching their canoe, they ascended to Moikeha's former residence at Lanikeha, but discovered that La'a was not there. After much searching, they found him on the neighboring mountain of Kapaahu²⁶, where he had gone to perform religious rites to his god, Lonoikaouali'i, "Lono in the chiefly signs of the heavens".²⁷

Kila informed his foster-brother of Moikeha's desire to see him once again before he died, and La'a agreed to accompany him on the return journey. Calling together his priests and attendants, La'a readied his own canoe for the voyage north.²⁸ The willingness with which La'a agreed to undertake this journey suggests that such open ocean voyages were not an uncommon occurrence.

Of the voyage itself we know little. It is said that the breath of the trades quickly wafted the brothers' canoes to the waiting shores of Kaua'i. Their arrival was heralded by the sound of the *Kaeke*, a great wooden drum which La'a had brought with him from Kahiki. Hewn of a coconut trunk and covered with shark skin²⁹, this drum is believed to have been the ancestor of what we know today as the *hula pahu*, the instrument used to accompany the traditional dance of the *hula*. This first *kaeke*, which La'a brought with him to these islands, is said to have been preserved until comparatively modern times at the Heiau of Holoholoku, in Wailua, Kaua'i.³⁰

When the Hawaiians on shore first heard the echoes of La'a's great drum, they paused to listen in silence and in wonder, but Moikeha, recognizing its voice, made ready to

welcome his returning sons. The details of their long awaited reunion have not been passed down to us, but Fornander quotes one of the many versions of the legend as stating that; "Upon the arrival of Laamaikahiki and Kila, Laamaikahiki was taken by the hand by the high priest of Kauai, Poloahilani, to the temple together with his god Lonoikaoualii. It is said that Laamaikahiki was the first person who brought idols to Hawaii."³¹

The religious awe with which the Hawaiian people regarded the newly returned La'a may be sensed in the very name which they gave him, for on his arrival they proclaimed him La'amai Kahiki, Ke 'li'i no Kapa'ahu, "Sacredness from Tahiti, Chief of Kapa'ahu".³²

A great number of stories exist chronicling La'a's exploits in Hawai'i. According to one tradition, he traveled throughout the islands introducing the use of the *hula* drum, and teaching the people the art of dancing to its rhythms. For this reason, La'a is considered by many to be one of the early patrons of the *hula*.³³

La'a's close association with this traditional dance form is revealed in a *kanaenae*, a chant in adulation of Laka, goddess of the *hula*, which was recited while gathering sacred plants to decorate her altar (*kuahu*). Towards the end of the chant are the lines,

O Laka, kaikuahine
 Wahine a Lono i ka ou-alii
 Of Laka, the sister
 The wife of Lono i ka ou-alii³⁴

Lonoika'ouali'i, it will be remembered, was the god La'a brought with him from Kahiki.

Legends tell us that after remaining for a time with Moikeha on Kaua'i, La'a journeyed to the windward coast of Oahu, and made his home on the promontory of Kualoa. This broad sandy headland jutting out into the pale, reef shadowed waters of Kaneohe bay, must have reminded La'a very much of

his home in far Tahiti, backed as it was by the lofty, knife-edged ridges of the Ko'olaus, their peaks lost in mist.

From La'a's time onwards the land of Kualoa was to become known as the abode of chiefs. In the late prehistoric period it was considered to be one of the most sacred places on the island of Oahu, and passing canoes would dip their sails in respect on rounding its point.³⁵

Here at Kualoa, La'a took in marriage three wives, all daughters of chiefs. With time, each gave birth to a child. These boy children were said to have all been born on the same day, and were referred to in genealogical chants as "The triple canoe of La'a-mai-Kahiki". It is from these sons of La'a that the chiefly lineages of Oahu and Kauai trace their descent.³⁶

La'a is also said to have lived for a time in other districts throughout the Islands. One of his homes was on Maui, along the island's southeastern coast, just across the Alalakeiki Channel from Kaho'olawe. This *ahupua'a*, or land district, is known as Kahikinui, and is said to have been named in honor of La'a's boyhood home.³⁷

The legend goes on to say that;

As the place [Kahikinui] was too windy,
Laamaikahiki left it and sailed for the west coast
of the island of Kahoolawe, where he lived until he
finally left for Tahiti. It is said that because
Laamaikahiki lived on Kahoolawe, and set sail from
that island, was the reason why the ocean to the
west of Kahoolawe is called 'the road to Tahiti'.³⁸

La'a's return to Kahiki appears to have marked the close of the great voyaging period. From this time onwards, tradition records no further voyages to or from the southern islands. With La'a departure from the shores of Kaho'olawe, the once familiar lands of Kahiki drifted into the misted seas of legend.

In addition to the various chants and legends which make up the story of La'amaikahiki, one further piece of documentary evidence links La'a's name with that of

Kaho'olawe. Among the personal effects of Hawaii's last queen, Liliuokalani, is a small, cloth-bound ledger, now held at the Hawaii State Archives.³⁹ Most of this book's pages are filled with hand written notes tracing the genealogical background of the Queen's chiefly relatives. The few dates inscribed in the ledger suggest that these genealogies were compiled between the years 1894 and 1896, possibly as an aid to Liliuokalani while she was writing her book, Hawaii's Story by Hawaii's Queen.⁴⁰

On the 9th page of this ledger is written a list of names entitled "Ka Moi o Kaho'olawe", "The Rulers of Kaho'olawe".⁴¹ As far as we know, the island of Kaho'olawe was never an independent kingdom, but was always considered a dependency of neighboring Maui. It seems unlikely, therefore, that this document is a record of the true rulers of the island. Instead, it appears simply to be a listing of the lesser chiefs who, at various times, served as *konohiki* or land managers for the island.⁴²

The second of the twenty three names on this list is that of La'amaikahiki. It is doubtful that Laa was ever the "ruler" of the tiny island of Kaho'olawe, much less its *konohiki*. The presence of his name on this list, however, suggests that in the minds of those who compiled it, the name of La'amaikahiki was inextricably linked to the early history of Kaho'olawe.

Although La'amaikahiki is probably the most famous of the legendary south-bound voyagers who took their departure from the shores of Kaho'olawe, the ancient chants and genealogies mention other names as well. Among these is Waha-nui⁴³, who is said by the Hawaiian historian Samuel Kamakau to have "sailed for Kahiki by way of Ke-ala-i-kahiki at Kaho'olawe".⁴⁴

Another voyager mentioned in these ancient lays is Tahiti-nui. Fornander says of him that, "After Hawaii loa was dead and gone, in the time of Ku Nui Akea, came Tahiti nui from Tahiti and landed at Ka-lae-i-Kahiki (the southwest

point of Kahoolawe, a cape often made [visited] by people coming or going to Tahiti). Tahiti nui was a moopuna [grandchild] of Ki, Hawaii loa's brother, and he settled on East Maui and died there."⁴⁵

It is apparent from the legendary accounts of La'a, and of these other ancient navigators, that the westernmost tip of the island of Kaho'olawe was well known to the early people of Hawaii as a way station on the great voyaging route to Kahiki. If this was indeed true, and Kealaikahiki did serve as a staging area during the voyaging period, then we might expect to find some physical evidence which would lend support to these traditional accounts.

Between the years 1976 and 1980, an extensive archaeological survey was undertaken on the island of Kaho'olawe.⁴⁶ This survey revealed the presence of a number of ancient Hawaiian sites lying on and around the point of Kealaikahiki. For the most part, these sites consist of low crescent-shaped walls and shallow overhang caves. In and around these ruins lie scattered the sun bleached shells of molluscs such as *opihi* and *pipipi*, pried from the rocks at low tide, as well as the bones of fish netted along the shore and hooked in the deeper offshore waters. These small, roughly made structures appear to be the remnants of temporary shelters constructed by fishermen who came to exploit the abundant marine life which inhabits the waters off the point.

It was these same fishermen who most probably built the numerous small shrines which dot the area's rocky headlands. Known to the ancient Hawaiians as *ko'a*, these shrines vary greatly in shape and complexity. Most often they consist simply of a low stone cairn or platform studded with pieces of branch coral. It was upon these altars that local fishermen placed the first fish of their catch as a *ho'okupu*, an offering to Ku'ula, the god of abundance in the sea, whose presence was represented by a water worn upright boulder known as a Ku'ula stone.

Along a strip of beach just north of the point was found evidence of a more permanent settlement. Here were discovered the remains of rectangular house platforms and shrines, as well as a human burial exposed by the elements.⁴⁷ The burial was that of a young child, suggesting that the settlement had been occupied, not just by a few intinerate fishermen, but by one or more family groups. The presence of living sites, places of worship and a burial all combine to suggest that this beach was the home of a small, but thriving community. Dates obtained from flakes of volcanic glass collected at the site suggest that the settlement was occupied some time in the late 14th century A.D.⁴⁸

The discovery of this small fishing hamlet, though interesting in itself, sheds no light on the role which the cape of Kealaikahiki may have played in the events of the great voyaging period.⁴⁹ Far more intriguing in this respect is a site lying within a shallow crescent cove some 300 meters south of the cape.⁵⁰ Along the shore of this bay⁵¹ rises a large sand dune some 80 meters in length, and extending from 10 to 30 meters inland. Recent storm waves have cut into the seaward face of this dune, revealing layers of charcoal stained sand, rich with fish bones and shell-fish remains; evidence that the dune was once the site of an ancient settlement. A child's burial was also found, eroding out of the inland flank of the dune.

The archaeologists who discovered this site excavated a small test trench into the dune's southern edge. They found the first 3 centimeters of the dune to be formed by a layer of recently deposited mud. Below this, however, they encountered layers of beach sand stained with charcoal and ash. These lower layers contained fire hearths, fish bone and mollusc shell, fire cracked rock, flakes of sharp-edged volcanic glass used by the ancient Hawaiians as cutting tools, and part of a barbed bone fishhook.⁵² All of this material provides evidence of the past human occupation of

found, carved into the face of a number of the area's natural boulders. A large intermittent stream, which flows to the sea just east of the dune, probably served as the main source of water for the settlement's early inhabitants.⁵⁸

Taken together, this group of structures covers an area of 12 acres. It was described by the archaeologists who investigated it as forming "one of the largest site complexes on the island".⁵⁹ During its occupation, this small bay would have supported what, for the sparsely inhabited island of Kaho'olawe, must have been a quite sizeable population. The presence of so large a settlement situated on this somewhat inhospitable stretch of coast might suggest that the site served as more than just a simple fishing hamlet.

If, as legends say, La'amaikahiki did indeed set sail from the westernmost tip of Kaho'olawe, is it possible that this small bay served as his point of departure? Could the settlement set within this tiny cove have been a staging area for ancient voyagers as they made their final preparations for the long journey south to Kahiki? At present we have no way of knowing. Until further investigations are undertaken at the dune site, such a suggestion must remain an unproven hypothesis founded on the shifting sands of legend.

From the cape of Kealaikahiki, let us return for a moment to the point at which we began this journey back into the legendary past, to the summit of Pu'u o Moaulaiki. The hill of little Moaula, as she is known, is a small cinder cone remnant resting on the flanks of her larger sister, Pu'u o Moaulanui, the island's highest peak.

Atop the crest of this cinder cone stand the remnants of what appears to have been an ancient shrine. This large, stone edged platform, on which were found fragments of branch coral brought from the coast, was badly damaged by the recent construction of a military radio tower.⁶⁰ The presence of this shrine suggests that the early Hawaiian inhabitants of Kaho'olawe may have considered Pu'u o Moaulaiki to be a

sacred spot. Looking out from its height, one can easily understand why.

From the crest of Pu'u o Moaulaiki one can look down to where the currents streak the surface of Kealaikahiki channel, or off to where the prow of Lae o Kealaikahiki crests the waves rolling in from the west. Visible from this vantage point are all but one of the major islands in the Hawaiian chain. To the northeast stands the cloud shadowed slope of Haleakala, and beside it the mist wrapped valleys of the west Maui mountains. Further west lie the smoke blue silhouettes of Lana'i and Moloka'i. While on a clear day, rising between them, can be seen the distant shape of Oahu. Far to the southeast sleep the twin snow clad peaks of Mauna Kea and Mauna Loa. In many ways the beauty of this scene is reminiscent of Teuira Henry's description of the view from another, more distant, Moaula.

One cannot help but wonder whether it is merely coincidence that this peak which overlooks the point of Kealaikahiki, said to be the last place that La'a dwelt before his departure from Hawaii, bears the same name as his childhood home in far Kahiki, the home to which he returned when his canoe left the shores of Kaho'olawe.

There is, of course, no way of knowing for certain whether the peaks of Pu'u o Moaulanui and Pu'u o Moaulaiki take their names from the "great lofty red mountain" in whose shadow La'a grew to manhood.⁶¹ Yet it is intriguing to listen again to the words of Kamahualele's chant lifted to the winds which swelled the sails of Moikeha's canoe as it neared the shores of these islands;

A man is Hawai'i,
A child of Kahiki,
A royal flower from Kapaahu,
From Moaulanuiakea Kanaloa,

and in its last line to hear echoed the name, not only the loftiest point on the island of Kaho'olawe, but that of the very island itself; its most ancient name, Kanaloa.

Notes

1.) In the files of the Hawaii State Survey Office is an old map of unknown date or origin, bearing the label "Doc[ument] 1126". Its hand written legend states that "Kahoolawe is an ahupuaa divided into ili as per map". An *ahupua'a* is, as Pukui and Elbert define it, a "Land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (*ahu*) of stones surmounted by an image of a pig (*pua'a*), or because a pig or other tribute was laid on the altar as tax to the chief. The landlord or owner of an *ahupua'a* might be a *konohiki*." (Pukui and Elbert 1971:8) Indications are that in ancient times the island of Kaho'olawe was considered an *ahupua'a* of her larger neighbor, the island of Maui. The *ahupua'a* of Kaho'olawe was then subdivided into smaller land divisions called *'ili*. This map divides the island into twelve *'ili*, the southwesternmost of which is labeled "Kealaikahiki". This wedge-shaped land section is bounded to the northwest by a line running from Lae o Kealaikahiki to the crater of Lua Moaula, and to the southeast by a line running from what appears to be the bay of Kamohio to join the other boundary at Lua Moaula. If the information contained in this map has any validity, then the place name Kealaikahiki refers, not only to the cape and its adjacent channel, but also to a land division encompassing quite a sizeable portion of western Kaho'olawe.

2.) Lae o Kealaikahiki appears to have been one of two known starting points for these south-bound voyages. The other was Ka Lae, the southern tip of the island of Hawaii. (Billiam-Walker 1943:23-24)

3.) "... in the time of Ku Nui Akea, came Tahiti nui from Tahiti and landed at Ka-lae-i-Kahiki (the southwest point of Kahoolawe, a cape often made by people coming or going to Tahiti)." (Fornander 1919-1920:VI:278-281). The word "made" is probably used here in the nautical sense of having been sighted or arrived at.

4.) Pukui 1974:66.

5.) In her book Recollections of Kaho'olawe, Inez Ashdown translates the name Kaho'olawe as the "place where the driftwood gathers". (Ashdown 1979:50)

6.) This name, Kahiki Moe, literally "to sleep [in] Kahiki" was passed on by the late Harry Mitchell of Honua'ula, Maui, whose ancestors fished and gathered marine life along the shores of Kaho'olawe.

7.) Kaho'olawe is referred to by this name in a chant composed by Kaleikuahulu, a member of the court of Kamehameha I, and recorded by Abraham Fornander (Fornander 1919-

20:VI:360). It is also found in a similar *mele* by the priest Pakui (Fornander 1916-17:IV:12). Folklorist Martha Beckwith states that "The old name for Kahoolawe is said to be Kanaloa". (Beckwith 1970:305)

The Hawaiian writer Samuel Kamakau attributes this ancient name to one of the early navigators who helped to settle these islands. "In the traditions and prayers and chants of *ka po'e kahiko*, it is often said that the gods came from Kahiki, from upper space, *lewa lani*, and from the heavens, *lani*.

According to the *mo'olelo* of Kane and Kanaloa, they were perhaps the first who kept gods ('o laua paha na kahu akua mua) to come to *Hawai'i nei*, and because of their *mana* they were called gods. Kaho'olawe was first named Kanaloa for his having first come there [from Kahiki] by way of Ke-ala-i-Kahiki. From Kaho'olawe the two went to Kahikinui, Maui, where they opened up the fishpond of Kanaloa at Lua-la'i-lua, and from them came the water of Kou at Kaupo." (Kamakau 1991:112)

In a handwritten note found among her private papers, Inez Ashdown recalls that; "One cowboy showed me a hillock near Moa'ula on Kahoolawe. He said it is Kanaloa or his grave because he never left his land. That is why Hina the sea maiden returns to tend the lei of Hina hina growing on the shores of that isle now gathering driftwood, Kaho'olawe." (this is one of a page of handwritten notes with no title or date, a copy of which is on file in the Archives of the Bishop Museum)

(8) As is common with most Hawaiian legends, there are many variations of the La'a story. A number of these have been recorded by Fornander in his Collection of Hawaiian Antiquities and Folklore (Fornander 1916-17:IV:112-173). In presenting the legend here, I have followed most closely that version given by Fornander in his An Account of the Polynesian Race. (Fornander 1969:II:49-56). In this volume he attempts to distill the various versions of the La'a and Moikeha legend, and to link them with surviving genealogical records. These genealogies show both Moikeha and La'a as being descendants of Hawaiian chiefly families. Other versions of the legend suggest that one or both came originally from Kahiki. Since there is no way to reconcile these differing versions, I have chosen to follow as closely as possible the story as it was reconstructed by Fornander, as it appears to be the most historically "trustworthy". Variant versions of the legend are given by Buck (1938:253-256), Henry (1928:567-569), Kalakaua (1972:117-135), Kamakau (1865:14-16), Malo (1951:7) and Westervelt (1923:79-92).

9.) Here the legends get confusing. Fornander states that the Nanaulu line of chiefs derives from the first settlers to reach these Islands (Fornander 1969:II:47-49), while Beckwith suggests the lineage belonged to a later migration. (Beckwith

1970:352) In contrast to both of these versions, Peter Buck feels that Olopana was a Tahitian chief who never visited Hawaii, and that his name is known in the Islands only through his brother, Moikeha, who sailed north to settle here. (Buck 1938:253). As mentioned before, I have sided with Fornander in this debate, but have no way of determining for certain whether he is correct. My best advise would be to read the all the variant versions of the legend and then take your pick.

10.) Though some variations of the legend state that La'a was the son of Moikeha by his wife Kapo, most agree that he was Moikeha's foster or adopted son, and that his true father was the Oahu *ali'i* Ahukai. (Fornander 1969:II:50) The chiefly genealogies indicate that La'a was a descendant of the Paumakua family, a line of Polynesian chief who had come to the Islands from the south only a few generations before. (Johnson 1981:119) His adoption by Moikeha was, therefore, a mingling of the old and new chiefly lines.

11.) The statement that Olopana and Moikeha's flotilla consisted of five canoes is taken from Kalakaua's version of the legend. (Kalakaua 1972:120)

12.) Buck 1938:255.

13.) "...this follows the Hawaiian custom of punalua in which two friends may share the same wife by a mutual agreement which removes from such relationships the European idea of immorality." (Buck 1938:253).

14.) Pukui & Elbert define the term "Lani-keha" as, the "Legendary part of heaven, frequent name for residences of high chiefs, as that of Ka-mehameha III at Lahina, Maui. Literally, lofty heaven". (Pukui & Elbert 1971:178) Kalakaua translates the name as meaning "the heavenly resting-place". (Kalakaua 1972:121)

15.) Teuira Henry feels that Lanikeha, which she renders in Tahitian as Raiteha (the healing chief), would have been a very appropriate name for the residence and marae of the priest Moikeha, whose name in Tahitian, Maiteha, means disease healer by prayers. She mentions also that and the god of the Oropaas (whom she believes to be descended from Olopana) was Tipa, the healing god. (Henry 1928:567)

16.) The three adjectives attached to the noun *moa* or "chicken", are *ula* "red", *nui* "great", and *akea* "open, or wide spreading". Pukui & Elbert define *akea* as "broad, wide, spacious". (Pukui & Elbert 1971:12) Thus Moaulanuiakea could be translated as "the great broad red chicken". It is interesting to note that the Hawaiian god Kunuiakea is referred to not as "the great broad Ku", but as "Ku the supreme one". (Beckwith 1970:15)

In compiling the traditions of La'a and Moikeha, Fornander discovered that on the island of Raiatea, in the Society group, whose ancient name was Havai'i, there existed a channel known in former times as Ava-moa. Te-ava-moa, "the sacred passage", was the main entrance leading through the reef to the settlement of Opoa. In ancient time Opoa was considered the seat and cradle of Tahitian culture and its main marae, Taputapu-atea, "Sacrifices-from-abroad", was the most sacred temple in all of eastern Polynesia. In the days of Opoa's former glory, great canoes from far and near are said to have entered the passage on their way to offer sacrifices before the altars of Taputapu-atea. Fornander suggested that "the Moa-ula, &c., of the Hawaiian legends refers to the Ava-Moa of Raiatea, Society group" (Fornander 1969:II:50-52), and that the term Moaulanuiakea should be translated as "great, expansive sacred redness". (Fornander 1969:II:50-52)

Nathaniel Emerson, in his own commentary on the legend, feels that the name Moaulanuiakea refers to the valley of Omoa on the island of Fatuhiva in the Marquesas, a place later made famous by the author Herman Melville in his novel Omoo. "There have been much discussion and conjecture as to the location of the land bearing this highly significant name. There is, if I mistake not, an island or district on the Marquesan Group named *Omoa*. May not this be the same place as this *Moa-ula-nui-akea*? (Emerson 1893:15)

Both of these explanations, though plausible, are not very convincing. A much better explanation, I feel, is that put forward by Teuira Henry.

17.) "...they settled at a place called Moa-'ula-nui-akea (Great-red-expansive-fowl) - probably Mou'a-'ura-nui-atea (Great-red-expansive-mountain), a former name of Tahara'a (Barrenness)." (Henry 1928:567) "The first name [Moaulanuiakea] is probably the Tahitian Moua-ura-nui-atea (Great-red-clear-mountain) or simply Moua-ura, now generally known as Taharaa". (Henry 1897:19)

18.) Henry 1897:19-20.

19.) "These landmarks seem to identify the land of North Tahiti, described in the legend of Tafa'i and elsewhere in this book, the seat and cradle of the great Tahitian chiefs named 'Oro-pa'a (Strong-warrior) - the equivalent of Olopana (Rub-to-snap) - after whom was named the Tahitian district of 'Oropa'a. From this it may be inferred that Olopana was a name originally taken from North Tahiti by its ancient emigrants, as it frequently appears far back in the royal genealogy of the Pomare dynasty." (Henry 1928:567)

Rubellite Johnston in her 1979 article "From the Gills of the Fish; Tahitian Homeland of Hawai'i's Chief Moikeha" (Johnston 1979:51-67) disagrees with Henry about the exact location of Moaulanuiakea. She suggests that the name of

Olopana's realm refers to the land of Moa'ura, a subdivision of the district of Tautira, on the southeastern end of the island of Tahiti. Her article provides a lengthy argument for this association.

20.) Fornander 1916-17:IV:114.

21.) Kamahualele is said by tradition to have been a kilokilo, an astrologer, seer or prophet. (Fornander 1969:II:10 & 52)

22.) Fornander 1969:II:10. Henry gives a slightly revised version of Kamahualele's chant. (Henry 1928:568)

23.) Fornander 1969:II:52. A more complete description of this episode is given in Fornander 1916-17:IV:116.

24.) Henry 1928:569.

25.) David Malo, in his Hawaiian Antiquities, writes that "When Kila was grown up, he in turn sailed on an expedition to Tahiti, taking his departure, it is said, from the western point of Kaho'olawe, for which reason that cape is to this day called Ke-ala-i-kahiki (the route to Tahiti)." (Malo 1971:7) This is at variance with Fornander's account which has him setting out from the southern tip of the island of Hawaii.

26.) The name Kapaahu can be variously translated as kapa-ahu, "the tapa cloak", as ka-pa-ahu, "the carrier of mats", or as ka-pa-ahu, "the walled cairn", a terraced enclosure or platform shrine. (Pukui & Elbert 1971:8,99,121 & 272-273)

Teuira Henry, in her 1897 article in the Annual Report of the Hawaiian Historical Society, expressed the opinion that, "the mountain, Kapaahu, in the neighborhood of which lived Laa-mai-Kahiki, may have been the Tapahi range of hills in the neighboring district of Mahina, on the northeastern side of Mt. Moua-ura-nui-atea." (Henry 1897:20) In her 1928 book, Ancient Tahiti, she goes on to mention that, "Within their dominions was a mountain named Kapa-ahu - very likely the hills of Ta-pahi (To-spray) - along the shores of which are stones and rocks, where spray from the sea is always playing." (Henry 1928:567) "La'a, who had grown to manhood, was then living at Kapa'ahu (probably in the shady nooks of Tapahi Hills)" (Henry 1928:569)

27.) Fornander 1916-17:IV:128. Kamakau states that; "Lonoika'ouali'i was the visible symbol of the god Lononuiakea, and it was called Lonoikamakahiki." (Kamakau 1964:7) He translates Lonoikaoualii as "Lono-in-the-chiefly-signs-in-the-heavens". (Kamakau 1964:59)

28.) The 19th century historian William Alexander remarks that La'a is believed to have been accompanied on his return from Kahiki by Naula a Maihea, a famous sorcerer and prophet. (Alexander 1899:23)

29.) "His drum was an immense one hewn out of a coconut trunk and covered with shark's skin." (Henry 1928:569)

30.) "From Laamaikahiki's time to the introduction of Christianity, the use of this kind of drum became general over the group and every independent chief, and every "Heiau Pookanaka" - where human sacrifices were offered - had its own "Kaekeeke" and drummer." (Fornander 1969:II:62-63) In the legend of La'a and Kila related in Fornander's Collection of Hawaiian Antiquities and Folklore, the great drum sounded by La'a at his temple in Kapa'ahu is described to Kila as, "Hawea, the drum which belongs to your father, Moikeha". (Fornander 1916-17:IV:126) Hawea seems to be the name which tradition most commonly associated with the drum La'a brought with him to Hawai'i. One of the poetic sayings mentioned by Mary Pukui in her book 'Olelo No'eau; Hawaiian Proverbs and Poetic Sayings, speaks of two such drums, Hawea and 'Opuku.

Na pahu kapu a La'amaikahiki,
 'Opuku laua o Hawea.
*The sacred drums of La'amaikahiki,
 -'Opuku and Hawea.*
 (These were the drums brought by
 La'amaikahiki from the South Sea.)
 (Pukui 1983:249, #2283)

31.) Fornander 1916-17:IV:128.

32.) Teuira Henry states that on La'a's return to Hawaii, "He highly impressed the Hawaiian people with his greatness, and they named him La'amai Kahiki, Ke 'li'i no Kapa'ahu (Sacredness from Tahiti, Chief of Kapa'ahu)". (Henry 1928:569)

33.) "Tradition of the most direct sort ascribes the introduction of the pahu [the hula pahu or hula drum] to La'a - generally known as La'a-mai-Kahiki (La'a-from-Kahiki) - a prince who flourished about six centuries ago. He was of a volatile, adventurous disposition, a navigator of some renown, having made the long voyage between Hawaii and the archipelagoes in the southern Pacific - Kahiki - not less than twice in each direction. On his second arrival from the South he brought with him the big drum, the pahu, which he sounded as he skirted the coast quite out to sea, to the wonder and admiration of the natives on the land. La'a, being of an artistic temperament and an ardent patron of the hula, at once gave the divine art of Laka the benefit of this newly imported instrument. He traveled from place to place, instructing the teachers and inspiring them with new ideals.

It was he also who introduced into the hula the kaekeke [bamboo cylinders] as an instrument of music." (Emerson 1909:141). Elizabeth Tatar, writing in an article on the pahu in George Kanahale's Hawaiian Music and Musicians, goes so far as to suggest that, "La'a is none other than Laka, the god/goddess of the hula." (Kanahale 1979:288-289).

34.) Emerson 1909:17.

35.) The ancient traditions associated with the promontory of Kualoa are recounted in Sterling & Summers, Sites of Oahu (Sterling & Summers 1978:177-184), and in Samuel Kamakau's Ruling Chiefs of Hawaii. (Kamakau 1961:129).

36.) Fornander presents a chant which gives the names of these sons, referring to them as;

The triple canoe of Laa-mai-Kahiki,
The sacred firstborn of Laa,
Who were born on the same one day.
(Fornander 1969:II:55-56)

37.) Fornander 1916-1917:IV:128. This land division lies along the dry southeastern shore of Maui, near the bay of La Perouse, and possesses an environment very similar to that of coastal Kaho'olawe. Westervelt, writing in the early 1900s, states that, "A large district on the island of Maui, where, it is said, the friends of a Viking would gather for feasting and farewell dancing, was named Kahiki-nui (the great Kahiki)." (Westervelt 1973:138-139)

38..) Fornander 1916-17:IV:128. Nathaniel Emerson provides a slightly different interpretation of Fornander's text. In his article "The Long Voyages of the Ancient Hawaiians", he writes; It is also claimed that for a time Laa-mai-Kahiki lived on Maui, a fact commemorated in the name Kahiki-nui, where he resided; but driven from there by dislike for the violence of the wind, he moved to Kahoolawe and took his final departure for Tahiti from the western extremity of that island, which point for that reason has been named Ke-ala-i-Kahiki, the way to Tahiti." (Emerson 1893:23)

Another version of the legend, also found in Fornander, states that upon Moikeha's death, La'a returned once again to Hawai'i to collect the bones of his foster father and take them back with him to be placed in the royal crypt on the mountain of Kapaahu in Kahiki. "It was on this visit that hula dancing, accompanied by the drum, is said to have been introduced in Hawaii by Laamaikahiki." On his departure, La'a took with him Moikeha's son Kila. It is said that both of these men lived the remainder of their lives in Kahiki. "Nothing more was heard of these two since that time." (Fornander 1916-1917:IV:152-154).

39.) This ledger is filed as collection number M-93, document no. 202.

40.) Liliuokalani 1898.

41.) A copy of this list can be found in Appendix H.

42.) There appears no direct evidence to support Carol Silva's assertion that this list represents a "sequence of ruling chiefs and chiefesses", and that its existence implies Kaho'olawe's status as "a separate political, socio-economic entity". (Silva 1983:1) It seems more likely that the island was an *ahupua'a* under the control of the powerful Maui chiefs, but with its own distinct *konohiki*.

43.) Pukui and Elbert translate the term *waha nui* as meaning, "a big mouth, to talk too much". (Pukui and Elbert 1957:348)

44.) Kamakau 1991:105. Interestingly, the land of Moa-ula-nui-akea, commonly associated with the legends of La'a and Moikeha, is also linked to Waha-nui. Its name is mentioned in a chant relating the adventures of the legendary voyager Wahi-lani, whom Beckwith feels is identical to Waha-nui. (Beckwith 1970:453) The chant states that:

Wahi-lani, chief of Oahu
Sailed away to Kahiki,
To the islands of Moa-ula-nui-akea,
To tread the sunken land of Kane and Kanaloa.
(Malo 1971:241, note 1; Beckwith has modified the translation of the chant's last line).

It seems likely that at the time this chant was composed the term Moa-ula-nui-akea had lost its original meaning as the name of a specific land district, and had become synonymous in the mind of the composer with the distant lands of Kahiki.

45.) Fornander 1919-1920:VI:278-281.

46.) Robert Hommon's Multiple Resource Nomination Form for the Historic Resources of Kaho'olawe (Hommon 1980) serves as the final report of this survey. Information on individual sites can be found in the respective National Register of Historic Places Inventory - Nomination Forms on file in the Hawaii State Historic Preservation Office.

47.) Site 138.

48.) The two dates obtained from volcanic glass samples collected at this site give an age range of 1373±42 A.D. and 1382±25 A.D..

49.) In September of 1979, Charles Keau, a Hawaiian archaeologist from Maui, discovered what he believes to be a

"navigational" ko'a (shrine) on near the point of Kealaikahiki. The structure appears to be built around four natural boulders, the spaces between which are aligned north-south, east-west. This feature lies within the area of Site 137. A scale map of the feature was drawn up at the time of its discovery and is now in the possession of the Protect Kaho'olawe Ohana.

The possibility exists that some of the many shrines which crowd the western coast of Kaho'olawe are not simply fishing ko'a, but ko'a heiau holomoana, shrines for long distant voyaging. This type of religious site was described by Samuel Kamakau. "The heiaus for distant voyaging (na ko'a heiau holomoana) were separate kuahu [altars] set up when people wanted to go to other lands of this archipelago, or to lands of Kahiki perhaps or unknown lands. Their kuahu were built well, so that the gods would help them in their voyaging. Then they would be able to travel to distant lands. This was an important thing to these people - to go searching for, and travel to, the lands of Kahiki." (Kamakau 1976:144)

50.) Site 139, Feature C.

51.) On the most recent U.S. Geological Survey map of Kaho'olawe this bay is labeled as Honukanaenae. The name appears to have been assigned to the bay by geographer Lee Motteler. Motteler learned the name from Inez Ashdown who, in her unpublished "Kahoolawe Place Names", mentions it as an alternative name for the nearby bay of Hana Kanaia.

"Next comes "Hana ka Naia" which, if you figure the Porpoise do work to protect whales, should be Hana o ka Naia. Actually, according to the old paniolo working with us, it should be Honu ka nae nae. This cave, point & Bay between Waikahalulu is where Ai'ai set up the ko'a and blessed this area for the Honu (turtles) to lay their eggs, and for kohola (whales) to be safe. Honu, the sacred turtle, protects the cave also. The paniolo knew an oli (chant) about Ka nae nae and it was a prayer or Kahea (call) to Ke Akua (God) and to 'aumakua (ancestral spirits) whose form seen is the Honu. There also is a certain hula, Hula Honu" done to this chant. One time Jack Aina chanted and danced it. He also made Errol "Poli" von Tempski the Kahu of the cave. Aina took Poli by moonlight and took him into the cave and blessed him to take care on [sic] it and its priceless ancestral contents. Aina was old, did not trust anyone but Poli to guard this secret and all the secrets of Kahoolawe". (this quote is taken from page 2 of "Kahoolawe Place Names: Ashdown", dated 1976, a copy of which is held at the Bishop Museum Archives)

On page 12 of her annotated copy of Gilbert McAllister's Archaeology of Kahoolawe, Ashdown noted that; "This name should be Honu ka naenae rather than Hana-ka-naia. The former, more ancient name has to do with the turtle (Honu) who guards the burial caves. In latter, with the Porpoise or

nai-a which protect people & mother whales & calves." (a copy of this book is also on file in the Archives of the Bishop Museum)

Why Motteler used Honukanaenae as the name for the smaller bay west of Hana Kanaia, instead of as an alternate name for the bay of Hana Kanaia itself, is unknown. There is certainly no evidence to suggest that Honukanaenae was the traditional name for the bay.

52.) The upper levels of this sandy deposit, down to a depth of 46 cm, appear to have been reworked by the action of storms and high waves, but the lower levels, down to 103 cm, at which point the excavation was halted due to lack of time, seem to have survived relatively intact.

53.) The four volcanic glass flakes recovered during this excavation gave dates of;

1182 \pm 25 A.D.
1206 \pm 25 A.D.
1219 \pm 25 A.D.
1427 \pm 26 A.D.

54.) Fornander 1969:II:6.

55.) Stokes presents arguments for his estimate of 20 years per-generation in his article, "New Bases for Hawaiian Chronology". (Stokes 1933:48-63)

56.) According to Stokes' reckoning, the voyaging period lasted from approximately 1250 A.D. to approximately 1400 A.D. The estimates of both Fornander and Stokes' are reviewed by Robert Hommon in his Multiple Resource Nomination Form for the Historic Resources of Kaho'olawe. (Hommon 1980:Item 8:31-32)

57.) By Stokes' calculations, La'a was of the generation whose average birth year was 1370, placing the time of his departure from Kaho'olawe somewhere near the end of the 14th century A.D.. (Hommon 1980:Item 8:32)

The following is a schematic representation of the various dates mentioned in the text, and of their chronological relationship to each other.

<u>Dates from Honukanaeae Dune</u>	<u>The Voyaging Period</u>		
	<u>Fornander</u>	<u>Stokes</u>	<u>La'a</u>
	1000 A.D.		
1182 - 25 A.D.			
1206 - 25 A.D.			
1219 - 25 A.D.			
		1250 A.D.	
	1299 A.D.		
			1370 A.D. (birth)
		1400 A.D.	1400 A.D. (departure)
1427 - 26 A.D.			

58.) This watercourse is shown as Wai Honu Gulch, or "Water of the Turtle" Gulch, on the latest U.S. Geological Survey map of Kaho'olawe. As with Honukanaeae, this name appears to have been assigned by Lee Motteler, though we do not know from where he obtained it. At present we possess no evidence to suggest that Wai Honu was the traditional name for this gulch.

59.) This quote is taken from page 5 of the "National Register of Historic Places Inventory - Nomination Form" for Site 139.

60.) For a full description of the traditions possibly associated with this shrine, see Chapter IX. Inez Ashdown's comment that in ancient times there was a medical temple, a shrine of the *kahuna lapa'au*, atop Moa-ula (Ashdown 1979:49) is interesting in the light of Teuira Henry's statement that, "Lani-keha, rendered [in Tahitian] Rai-te-ha (the healing chief), would be a very appropriate name for the residence and marae [temple] of the priest Moikeha, whose name translated into Tahitian, Mai-te-ha, means disease healer by prayers; and the god of the Oropaas was Tipa, the healing god." (Henry 1897:20)

61.) In a possible confusion of legends, Ashdown states that Haumea (described by various traditional sources as the goddess of the earth, ancestress of the Hawaiian people, wife of Kanaloa, and/or mother of the fire goddess Pele - Beckwith 1970:276) came to Hawaii from the land of "Moa-nui-'ula-akea". Upon arriving at Kaho'olawe, she named "the peak summit of the newfound island as Moa-nui-'ula-akea" (Ashdown 1979:53). Ashdown also mentions that, because of a disagreement with Haumea, "Pele shook the land, causing a raging crater near the summit. Today that crater is called Moa'ula, or the roasted place, a hillock atop Kaho'olawe" (Ashdown 1979:54). Neither of these accounts are corroborated by the traditional literature.

Chapter VIII

KAHUAHALE O KAMOHALII

"An idea prevails with some people that the ko'a of Kamohoalii, the king shark of Kahoolawe, is on this island [Kaho'olawe], but if all the stories told of it be examined there will be found no reference to a ko'a of his on this island."

(Moke Manu, in Thomas Thrum's
Hawaiian Folk Tales 1921:238)

Kalua o Kamohoalii, the sea cave lying at the northern edge of Kanapou bay, is not the only spot on Kaho'olawe which bear the name of Kamohoali'i, the brother of Pele. One of the oldest detailed maps we possess of Kaho'olawe¹, drafted some time around 1889, shows a place in the western interior of the island which it identifies as "Kahuahale o Kamohalii", the house site of Kamohalii.

In this instance the name "Kamohalii" is probably a slightly abbreviated form of the shark god's proper name, Kamohoali'i.² The term "Kahuahale" is a compound composed of the words *kahua*, meaning foundation, platform or site, and *hale*, meaning house. Thus, a *kahua hale* would be a house foundation or a house site.

This hand drawn document, which consists of a very rough sketch of the island crowded with place names, is the only early map we have of Kaho'olawe on which the name "Kahuahale o Kamohalii" appears. The relatively small size of this map, as well as its lack of physical detail, makes it practically impossible to identify the precise location of the "Kahuahale".

The idea that one of the residences of Kamohoali'i lay inland on Kaho'olawe figures in a legend recorded by W.D. Westervelt in his book Hawaiian Legends of Ghosts and Ghost-Gods.³ While, in the tale of Kaehuiki⁴, the young shark and his companions visit Kamohoali'i in his sea cave along the coast, in Westervelt's legend of "Lau-ka-ieie", the protagonists "went inland" to visit the shark god.

The legend, as Westervelt tells it, relates how Makani-kau, the chief of the winds, befriends Laukaieie, a beautiful young girl who dwells in Waipio valley on the island of Hawai'i. At Laukaieie's request, Makani-kau goes in search of the young man she has seen in her dreams. Having found this man, named Kawelona, on Kaua'i, Makani-kau escorts him back to Waipio.

On this journey he turned their boats to Kahoolawe to visit Ka-moho-alii, the ruler of the sharks. There Makani-kau appeared in his finest human body, and they all landed. Makani-kau took Kawelona from his cloud-boat, went inland, and placed him in the midst of the company, telling them he was the husband for Lau-ka-ieie. They were all made welcome by the ruler of the sharks.

Ka-moho-alii called his sharks to bring food from all the islands over which they were placed as guardians; so they quickly brought prepared food, fish, flowers, leis, and gifts of all kinds. The company feasted and rested. Then Ka-moho-alii called his sharks to guard the travellers on their journey. Makani-kau went in his shell-boat, Kawelona in his cloud-boat, and they were all carried over the sea until they landed under the mountains of Hawaii.⁵

Since we do not know the original source from which Westervelt took this tale, we cannot say for certain whether the ancient legend of Laukaieie really does infer that one of the homes of Kamohoali'i lay inland on Kaho'olawe. We can only suggest that, if so, this residence may possibly have been at Kahuahale o Kamohalii.

Further evidence that Kamohoali'i may have possessed an inland residence on Kaho'olawe is provided by Inez Ashdown. In an unpublished article about Kaho'olawe written in 1967, and entitled "The Island of Death", Ashdown states;

My guide was old Jack Aina⁶, our foreman, and one of the finest pa'niolo (cowboys) in our realm here. Aina showed me the ancient temple dedicated to the shark deity, Ka-mo'o-ali'i, a sea brother of Tutu Pele of the volcanoes. Here, he said, the land form of Kamo'oali'i often might be seen when he rested from his duties of protecting Maui Kingdom

waters from the great Ni-u-hi (man-eating sharks) from his sea home in Kana-po'u Bay.⁷

In this article, Ashdown gives no indication as to where the "ancient temple" she speaks of might have been located. Within various other of her private papers, however, can be found hints that the temple shown her by Jack Aina may have been Kahuahale o Kamohalii. More than once, Ashdown suggests a location for this temple, which she refers to as "Hale o Moo'alii". This location, however, seems to change with each document.

Ashdown's manuscript list of "Kahoolawe Place Names", written in 1976⁸, includes the statement;

From Moiwi [Pu'u Moiwi] a stream flows in rain time into Waikahalulu Bay. It passes by Ka Hua and the heiau Hale o Moo'alii or, if you say the name of Pele's shark king brother to mean he is Representative and in charge of his sisters & brothers, Kamohoalii. You can say this name as Ka moho 'alii, or as Kamo hoa lii, depending on what is meant, or so Alice Aki has told me, and she now lives with her daughter in Makawao.⁹

In a 1977 letter to Captain Crockett, then U.S. Naval commander in charge of Kaho'olawe, Ashdown wrote;

The stream [Waikahalulu] flows down from Pu'u Mo'iwi (pu 'umo iwi) or where the Heiau (Hale o Kamo'o-ali'i) stands. Here are kept the treasures (bones) of the ancestors, and the smaller heiau of Ka Hua, The Egg. (And this I cannot explain properly. The Twin Waters of Life meet; God breathes, Ha; the male and female hua or seeds conceive. Not all hua receive life. Only those chosen by the Creator receive a soul from Him.) I only know the stream-names and the hill name, and that perhaps some ceremonies regarding marriage or mating were observed. Maybe the old folks had no words in English, or were shy to talk to me about conception etc because I am a Ha'ole Kekea (Caucasian), and among Caucasians who were Christians who thought the "Old Ways" were thought of as "vulgar."¹⁰

In the section of the letter quoted above, Ashdown seems to indicate that the "Hale o Ka-mo'o-ali'i" was situated atop Pu'u Moiwi, at or near the site of the ancient adze quarry, and that a smaller temple stood nearby. Earlier in that same letter, however, she writes that;

At Ahupu-iki stood a big, strange boulder covered with other stones¹¹, plus a ko'a. We thought that, perhaps, the boulder was the land-entrance to a burial cave below. The "legend" tells that the Burial Cave of Kanaloa contains a canoe, artifacts, "coffin" and bones, weapons, dishes etc.. Jack Aina Kailipalauli showed the burial cave to Errol von Tempski and asked him to take care of it. Seems that Aina had been the kahu but had no trusted one to whom he could bequeath that sacred cave and its care. Aina knew this area as Ka-hua and the stone "shrine" as an altar to the shark-god, Ka-moho-ali'i.¹²

Ashdown's contradictory pronouncements as to the location of Kahuahale o Kamohalii; that it was up near Pu'u Moiwi, that it stood atop Pu'u Moiwi itself, that it lay along the coast at Ahupuiki, make it even more difficult to suggest where that site may have been situated.¹³

Using the 1889 map as a guide, a number of visitors to Kaho'olawe¹⁴, have endeavored to locate Kahuahale o Kamohalii. The first to attempt this was J.F.G. Stokes who, while surveying the island in 1913, made an apparently unsuccessful effort to find the site. As Stokes wrote in his field notebook at the time; "Leaving smugglers bay [Hana Kanaia], we went to the S. point [Lae o Kealaikahiki], & then struck inland trying to locate the Kahuahale of Kamohoalii, noted by Joe Emerson on map."¹⁵

Here the entry for the day ends. No further mention is made of the Kahuahale. If Stokes had been able to find the site, he would surely have written a description of it. Thus we can only assume that Stokes' searches proved fruitless.¹⁶

The question remains, what exactly was Stokes searching for? Did even he himself know? What does the house platform of a god look like? The island-wide archaeological survey of

1976-80 revealed no major archaeological sites lying within Kaho'olawe's western interior¹⁷, making it impossible to link the "Kahuahale o Kamohalii" shown on the 1889 map to any surviving ancient structure. The name could, of course, refer to a physical feature, but which one?

In helping to compile the 1982 U.S. Geological Survey map of Kaho'olawe, geographer Lee Motteler identified a small hill just east of Lua Kealialalo as "Puu Kahua".¹⁸ His choice seems a reasonable one, given the *pu'u*'s location, in roughly the area suggested by the 1889 map. If any ancient structure had once stood atop of this hill, however, no trace of it remains today. At some time during the United States Navy's stewardship of the island¹⁹, the summit of "Puu Kahua" was bulldozed and a spotting tower and helicopter landing pad were built atop it.

Walking over the crest of the hill today, it is impossible to detect any remnant of an ancient stone structure. Interestingly, though, the hill itself, with its eastern slope rising in an almost vertical boulder-faced outcrop, somewhat resembles a giant house platform. The possibility exists that it was the hill's natural formation, and not any human built structure, which earned the *pu'u* its name. Such musings aside, however, we possess at present no direct evidence to indicate that the hill which Motteler has named Puu Kahua either was or was not the "Kahuahale o Kamohalii" shown on the 1889 map.

We do, however, possess ample evidence that at least one shrine dedicated to a shark deity, possibly Kamohoali'i, formerly existed on the island of Kaho'olawe.²⁰ This evidence comes in the form of a pair of letter sent by Reverend William Richards, resident missionary at Lahaina from 1823 to 1838, to Jeremiah Evarts, Corresponding Secretary of the American Board of Commissioners for Foreign Missions in Boston.²¹

In the first of these letters, written from the mission station at Lahaina on March 31st, 1827, Richards mentions that;

At the time I wrote you Hoapili the governor of the island [Maui] was on a tour, in which he visited all the villages on the Island and in every village held a meeting for the purpose of proclaiming certain rules and regulations and encouraging the people to attend to religious instruction.

While he was going round this island, his wife Hoapiliwahine visited Tahoolawe and brought away the weatherbeaten idol which has for a number of years, been had in great veneration and received sacrifices of some sort or other from every native that passed the island.²²

Reverend Richard's letter is the first indication we have that such an image once stood on Kaho'olawe. The "idol" he refers to appears to have been a rather important one. Not only does the letter describe it as being held, "in great veneration and received sacrifices of some sort or other from every native that passed the island", but the high chieftess Hoapiliwahine herself reveals its significance by the simple act of removing the image from its traditional place of worship and carry it away to Lahaina. So lofty an *ali'i* would probably not have concerned herself with an image mounted on a common fishing shrine.

Though descended from the highest ranks of the Maui *ali'i* ²³, Hoapiliwahine had recently been converted to the newly introduced religion of the *haole* ²⁴ missionaries, and was, at the time of her visit to Kaho'olawe, a devout Christian. Her removal of the wooden image from that island appears to have been a demonstration of her new-found faith. The "weatherbeaten idol" which she took from Kaho'olawe (like the wooden image found by Stokes in 1913 at Kamohio bay), appears to have escaped the general destruction of temples and burning of idols decreed by Liholiho (King Kamehameha II) in 1819, subsequent to his abolition of the *kapu* system.²⁵

Its survival was probably due to the island's relative isolation, far from the usual haunts of the ruling *ali'i*.

In his letter, Richards gives no indication as to where on Kaho'olawe this image originally stood. It may have been at one of the large temples in the valley of Hakioawa, or possibly at a lesser known site elsewhere along the coast. Although, on such a brief visit, Hoapiliwahine is unlikely to have ventured far into the island's interior, the image could possibly have been brought down to her from a site such as Kahuahale o Kamohalii. Most probably, however, the image Richards describes formerly resided at a temple situated within or near one of the island's larger native settlements.

Following its removal from Kaho'olawe by Hoapiliwahine, the "idol" appears to have been given over into the custody of the mission. This was not an uncommon practice, and some of our best examples of traditional Hawaiian religious art came originally from the collections of the American Board of Commissioners for Foreign Missions. Though this custom, among the missionaries, of collecting physical representations of the same heathen gods which they were trying so desperately to overthrow may seem at first a touch odd, there was a definite purpose behind it.

Like the treasures carried back to Rome by conquering legions, these fallen idols were seen as war trophies, symbols of Christ's victory over the forces of darkness. Wood, cut from images collected from the ruined temples of Hawai'i, is known to have been used to construct offering boxes which were then passed around at various religious gatherings throughout the United States for the purpose of collect funds to support the infant missions. Other images were kept in the A.B.C.F.M.'s reading rooms in Boston as a constant reminder of the struggle it had embarked upon.

The next we hear of the Kaho'olawe image is well over a year later in a letter dated October 14th, 1828, once again addressed to Jeremiah Evarts.

My very dear Sir:

I have just engaged Capt. Smith of the Ship Hope, New Bedford, to take charge of a box of Hawaiian curiosities. I therefore send you the idols which were mentioned in a journal of mine some two or three years ago. The Tahoolawe god or god of the shark²⁶ I do not send as it is too long to go into the box and is too much defaced and too rotten to send in any way which would occasion so much trouble as that of sending it open. The cup from which all his votaries drank to his worship, you will find in the box. It is made of cocoa nut.²⁷

Reverend Richards then goes on to discuss other curios sent in the box. He concludes by saying;

If you think proper Sir, you will deposit all these in the Museum until called for.

These curiosities were all either presented to us by our friends or purchased with books.

We can procure any quantity of curiosities for books. The idols however are scarce, perhaps not a single one remains of any note. The feathered wreaths would also be very difficult to be obtained for money or any thing but love.²⁸

From this time onwards, nothing more is heard of the Kaho'olawe image. Richards apparently kept it at or near his place of residence, but whether it finally succumbed to the elements and simply rotted away, or whether it was preserved and ended up in some collection, its origins forgotten, is not known.²⁹

The 'awa cup, however, has survived. Sent to the American Board of Commissioners for Foreign Missions, it remained among the other curiosities on the shelves of their reading room until 1895. In that year, the cup, the only artifact recovered from the island of Kaho'olawe for which we have any written history, undertook the next stage of its strange odyssey.

In 1895, the American Board of Commissioners for Foreign Missions loaned to the Bernice Pauahi Bishop Museum a collection of Pacific and Hawaiian artifacts. Included among

these was the Kaho'olawe 'awa cup.³⁰ The following year the Charles Reed Bishop Trust purchased the collection and donated it to the Museum. It seemed at last that the wayward cup had come home for good.

What little we know of the history of this cup, besides the scant information contained in Reverend Richards' letters, can be found in the notations written on the label which accompanied the artifact on its travels from Boston to the Bishop Museum. This description was dutifully copied into the Museum's leather bound artifact catalogue. The entry reads; "Awa cup of a kahuna. Kahoolawe; in this every chief or person of distinction who visited Kahoolawe drank awa to the god of that island as it was believed that anyone not doing so would be destroyed by a shark on his return".³¹

One interesting thing about this cup is its shape. In making it, the coconut shell from which it was carved was not cut horizontally as might be expected, but was sliced vertically along its long axis. Photographs of the cup show it to be narrow and long, almost canoe shaped. This particular shape identifies it as a true "kahuna cup", for only sacred vessels employed in temple rituals were carved in this manner. Such coconut cups were used throughout the Hawaiian islands as part of the 'awa ceremonies which formed an integral part of traditional worship.³²

It is evident that this particular cup was used in ceremonies devoted to the worship of a shark deity. Since we possess ample evidence that the island of Kaho'olawe was strongly associated with the shark god Kamohoali'i, it does not seem unreasonable to suggest that this cup, and the image collected with it, may have been dedicated to his worship.

With the purchase of the Kaho'olawe 'awa cup by the Charles Reed Bishop Trust, and its presentation to the Bishop Museum, the cup's travels seemed finally to have come to an end. Such, however, was not to be the case. On April 3rd, 1903, the 'awa cup was sent, as part of a collection of Hawaiian artifacts, to the Historical Museum at Berne,

Switzerland; "in exchange for a collection of Lacustrine [Swiss Lake Dwellers] implements" which the Museum had received back in 1901.³³

What, at that moment in time, the Bishop Museum needed with a collection of flint adzes and deer antler tools gathered from the shores of the alpine lakes is unclear. Possibly the then curator, William T. Brigham, felt it advisable to expand the Museum's comparative collection by acquiring examples of "primitive" tools from various parts of the world. The Museum possessed what was then thought to be an extensive Hawaiian collection, and could easily spare a few *poi* pounders, stone lamps and an 'awa cup, particularly if that cup came from a remote and otherwise uninteresting island like Kaho'olawe.

Times, as well as attitudes, have changed. This tiny coconut cup, the only surviving artifact collected from the island of Kaho'olawe for which we possess a definitive history, has taken on a value much greater than Brigham could ever have imagine when he sent it off to Switzerland.³³

In the years since Hoapiliwahine's visit, numerous objects have been removed from the island, both by professional archaeologists and private collectors. Seeing these artifacts in the display cases of museums, or examining them in climate controlled storage rooms, we can say with some degree of accuracy what each was probably used for. We can suggest that this adze may have been used to hollow out a canoe, or that water worn stone was probably set atop a temple platform. But for none of these do we possess a written confirmation of its history. This small, crescent cup, resting now in a museum half a world away, is the only one of these hundreds of artifacts which retains its own story. To speak in Hawaiian terms, it still carries the *mana*³⁴ of those many hands which once touched it and raised it to their lips.

In a way, the cup seems almost a symbol of Kaho'olawe herself; taken from those who traditionally used and cared

for it, it has been neglected, forgotten and left for years in the possession of strangers. One can only hope that some means may be now found to secure the cup's return to these islands, that it may at last complete its journey home, this time to stay.

Notes

- 1.) Document 1126, which is presently on file at the Hawaii State Survey Office. For a detailed description of the origins of this map, see Chapter II, note 30.
- 2.) Folklorist Martha Beckwith documents a number of similar variations in the name of this shark deity. The missionary William Ellis referred to him as "Mo'oari'i", King David Kalakaua spelled his name "Moaalii" and Mary Kawena Pukui mentions a chant in which he is called "Kahoali'i". (Beckwith 1970:129-130)
- 3.) Westervelt gives no indication as to the source from which he learned this legend.
- 4.) See Chapter IV, pages 110-113 for a complete account of the Kaehuiki's adventures.
- 5.) Westervelt 1963:44-45. Later on in his tale, Westervelt states that the sharks, whom Kamohoali'i had sent to escort Makani-kau and Kawelona to Hawai'i, were invited to join in the wedding ceremony. After "They feasted and danced near the ancient temple of Kahuku-welo-welo," in Waipio valley, "All the shark people rested, soothed by the music. After the wedding they bade farewell and returned to Kaho'olawe, going around the southern side of the island, for it was counted bad luck to turn back. They must go straight ahead all the way home." (Westervelt 1963:45-46) It is difficult to determine what is meant by this last statement. One assumes that there existed some kapu (prohibition) which forbade the sharks from taking a course which would cause them to circle back on their route, a situation which would apparently have resulted if they had gone around the island's northern end. This might suggest that the inland home of Kamohoali'i was situated in the southwestern end of Kaho'olawe.
- 6.) "Jack" Aina Kailipalauli was foreman at the Kaho'olawe Ranch from around 1917 to 1922.
- 7.) A typescript copy of "The Island of Death", dated May 26, 1967, is included among the Ashdown Papers on file in the Maui Historical Society. The section quoted above can be found on page 2.
- 8.) This list is entitled "From "Kahoolawe Place Names: Ashdown", and contains the note "Typed from photocopy of original manuscript written by Inez Ashdown, 1976. Copied precisely as written.". A copy is presently on file at the Archives of the Bishop Museum.
- 9.) "Alice Aki, her sister Lily Alameda (all of the Makehau family as is my dear friend, Iolani Luahine, and Pelahi Paki,

are my helpers for translations." Both of these quotes are taken from the manuscript "Kahoolawe Place Names: Ashdown", presently on file at the Bishop Museum Archives.

10.) From pages 5-6 of Ashdown's "Notes for Capt. Crockett", a copy of which is held at the Hawaii State Historic Preservation Office. Ashdown goes on in that same letter to note that; "Below Moiwī is Ka Hua etc, spoken of above."

11.) This is probably Site 311, Feature F, which is situated in a gulch just west of Makaalae. The site was first seen and described by J.F.G. Stokes in 1913 (Stokes 1913:7, see Appendix W), and later mentioned by Gilbert McAllister in his book Archaeology of Kaho'olawe (Site 46; McAllister 1933:55-56)

12.) From page 1 of Ashdown's "Notes for Capt. Crockett", a copy of which is held at the Hawaii State Historic Preservation Office. In her numerous writings Ashdown places this cave variably at Ahupuiki, at Kanapou (Ashdown 1979:38-40), at Kamohio (page 2 of "The Island of Death", an unpublished article dated May 26, 1967 which can be found among the Ashdown Papers on file at the Maui Historical Society, see Chapter VI, note 16) and at Hana Kanaia (page 2 of "Kahoolawe Place Names: Ashdown", dated 1976, a copy of which is held at the Bishop Museum Archives, see Chapter VII, note 52). At other times she admits that she was never told the location of the cave.

13.) Ashdown's difficulties in keeping her story straight seem to extend to her remarks on Kamohoali'i's parentage. In a paper entitled "Ashdown - Place names on Kahoolawe (according to list sent; plus what was taught to me from 1908 at Ulupalakua and 1916 by Eben Parker Low, Louis von Tempski and Jack Aina and other paniolo.", held in the collections of the Bishop Museum Archive, she describes Kamohoali'i as, "the name of the shark king who guards all the Maui seas (channels) from predatory sharks. He is the son of Ku-a-moana-ha, the great fisherman who lived on Kaho'olawe, and to whom all real students went for lessons about the sea and navigation and fishing, etc.." No mention of Kuamoanaha has yet been found in any of the Hawaiian traditional literature. While various versions of the Pele legend often mention different individuals as being the parents of Pele and Kamohoali'i (Moemoe and Haumea, Kanehoalani and Haumea, Kanehoalani and Kahinali'i, Kuwahailo and Haumea or Wakea and Papa), nowhere is there any mention of them having been sired by Kuamoanaha. (Beckwith 1970:169-171)

14.) Including the author.

15.) Stokes 1913:I:9, see Appendix W.

16.) None of Stokes' informants appear to have provided him with any information concerning the location of Kamohoali'i's house site.

17.) Almost no inland sites were found west of the Pu'u Moiwī adze quarry complex.

18.) Motteler appears to have made this decision based at least in part on Inez Ashdown's notes. In her annotated copy of McAllister's Archaeology of Kahoolawe, a xerox copy of which is on file in the Bishop Museum Archives, Ashdown has scribbled in on McAllister's map, just below the hill Motteler refers to as Puu Kahua, the name "Kahua Hale o Ka Mo'oalii". (this map can be found on page 46 of McAllister's book)

19.) Military use of Kaho'olawe began as early as May 10th, 1941 when the Kaho'olawe Ranch, who then controlled the lease of the island, subleased a section of Kaho'olawe to the U.S. Navy for \$1.00 per year. The Navy constructed a dummy runway, complete with fake airplanes, on its section of the island and set about using it for target practice. On December 8th, 1941, a day after the Japanese attack on Pearl Harbor, the military governor of Hawaii, who had assumed control of the islands under the provisions of martial law, seized the island of Kaho'olawe. All those involved in ranching activities on the island were evacuated, and Kaho'olawe was placed under the control of the U.S. Navy.

The island was used throughout the war as a training area for troops being sent south into the Pacific theater. All of the major amphibious landings undertaken during the military's island hopping campaign were first practiced on the beaches of the west end. Newly developed torpedo bombs were tested against the cliffs of Kanapou. At the close of the war the Navy refused to relinquish its control over the island. In February of 1953 Navy "ownership" of Kaho'olawe was formalized when President Dwight Eisenhower signed Executive Order 10436 "reserving Kahoolawe island, territory of Hawaii, for the use of the United States for naval purposes and placing it under the jurisdiction of the Secretary of the Navy". From that time onwards the Navy has in effect been the *konohiki* of the island.

20.) This shrine may have been of the type referred to by Samuel Kamakau as "*ko'a ho'omana o na mano*, or shark-worshipping altars". (Kamakau 1964:73)

The Reverend William Ellis, who toured the Hawaiian islands in the early 1820s, speaks in his journal of the numerous temples dedicated to Kamohoali'i's worship which formerly existed on the island of Moloka'i.

"Mooarii, (king of lizards or alligators) a shark, was also a celebrated marine god, worshipped by the inhabitants of Morokai, another island in the neighborhood. The chiefs

informed me, that on almost every point of land projecting any distance into the sea, a temple was formerly erected for his worship.

Several kinds of fish arrive in shoals on their coast, every year, in their respective seasons. The first fish of each kind, taken by the fishermen, were always carried to the heiau, and offered to their god, whose influence they imagined had driven them to their shores.

In some remote period, perhaps, they had observed the sharks chasing or devouring these fish, as they passed along among their islands, and from this circumstances had been led to deify the monster, supposing themselves indebted to him for the bountiful supplies thus furnished by a gracious Providence."(Ellis 1828:75)

As can be seen from Ellis' description, the shrines dedicated to "Mooarii", or Kamohoali'i, served much the same function as those dedicated to Ku'ula and other fishing deities. These *ko'a Kamohoali'i* were probably built and used by families who considered the shark god to be their 'aumakua, or family deity. Knowing his link to the island, it is not unreasonable to suggest that some of the numerous *ko'a* which dot the coast of Kaho'olawe were dedicated to Kamohoali'i.

21.) During his years in Lahaina, Reverend Richards kept a detailed record of the activities of the nascent mission station. This record, which contained detailed accounts of the events of the time, took the form of numerous, lengthy letters, the majority of which were addressed to Jeremiah Evarts, Corresponding Secretary of the American Board of Commissioners for Foreign Missions in Boston. In his correspondence, Richards referred to these letters as his "journal", for they were often written in journal form, with one missive containing entries made over a number of days.

Excerpts from these letters were occasionally published in the A.B.C.F.M.'s publication, the "Missionary Herald". These excerpts, however, contain only a fraction of the historical information to be found in the letters themselves. The original letters are presently housed in the Houghton Library at Harvard, with copies in the collection of the Hawaiian Mission Children's Society Library. The Hawaiian Mission Children's Society Library also possesses typescripts of those letters not printed in the "Missionary Herald". These typescripts, which are much easier to read than the originals, are bound in a series of 8 volumes entitled Missionary Letters.

22.) Missionary Letters II:754a. Hoapiliwahine appears to have gone to Kaho'olawe to investigate the state of the island's school, which in 1828 boasted 28 pupils. (Missionary Herald February 1829:XXV:No.2:54) These institutions, though organized under the supervision of the missionaries, were financially supported by the chiefs.

23.) Hoapiliwahine, also known as Kaheiheimalie or Kaniu, was the younger sister of Ka'ahumanu, the favorite wife of Kamehameha I. She herself had been one of the consorts of Kamehameha, but after his death had married Hoapili and taken his name. *Wahine* means simply "Woman, lady, wife" (Pukui & Elbert 1971:349).

24.) Pukui and Elbert translate the word *haole* as meaning "White person, American, Englishman, Caucasian; American, English; formerly, any foreigner; foreign, introduced, of foreign origin". (Pukui & Elbert 1971:55)

25.) The incidents surrounding the casting away of the *kapu*, the system of laws and customs which had governed traditional Hawaiian life for centuries, are detailed in the book The Hawaiian Kingdom. (Kuykendall 1938:I:68)

26.) A similar wooden image, this one known to be of the shark god Kamohoali'i, is referred to by David Kalakaua in his legend "Hina, The Helen of Hawaii". "Moaalii, the shark-god of Molokai - the god of the fisherman and the mariner - was always the earliest to be remembered. A huge image of this deity overlooked the ocean from the north wall of the heiau of Haupu, and leis of fresh flowers adorned its shoulders whenever a dangerous expedition departed or returned." (Kalakaua 1888:77)

27.) Missionary Letters III:728.

28.) Missionary Letters III:729.

29.) A suggestion has been made by Adrienne Kaeppler, Curator of Pacific Collections at the Smithsonian Institution, that the "god of the shark" taken from Kaho'olawe by Hoapiliwahine in 1827 may be a wooden image formerly held by Punahou School and now in the collection of the Bishop Museum. To quote from her letter of February 21st, 1992, addressed to the author of this paper;

"Concerning the "lost" Kaho'olawe image belonging at one time to Richards, I suggest (by process of elimination, size, style, and other unsupported means) that it might be BM 1364 (Cox and Davenport T 22). It was once part of the collection at Punahou (see attached) a good missionary stronghold. Is it possible that there might be some documentation as to where they got it?"

Kaeppler includes with her letter a xerox of a page from Nelson Foster's book Punahou, which shows a photograph of the image, as well as a number of other artifacts. The photo is entitled, "Idols etc. formerly at Punahou,". (Foster 1991:127) It appears to have been taken circa 1900 by an unidentified photographer. The original of this photograph is in the Punahou School Archives.

In the caption to the photograph, Foster goes on to say that, "Until 1900, Punahou had a "museum" consisting of a large, glass-fronted cabinet in Old School Hall. There these and other Pacific "curiosities" were exhibited for the edification of students and campus visitors. The wooden figure in the foreground may be the Hawaiian image found by students in a cave on Rocky Hill, a vestige of the heiau that once stood in that area. The scowling war-god Kuka'ilimoku, donated by Rev. Alonzo Chapin in 1860, was the most important artifact in the collection and, like the rest of the collection, passed to Bishop Museum soon after its establishment." (Foster 1991:127).

The Punahou image is listed on page 35 of the Bishop Museum's Ethnological Catalogue, presently on file in the Anthropology Department. The entry reads;

ACQUISITION NUMBER	DEPARTMENTAL NUMBER	SPECIMEN	LOCALITY	HOW ACQUIRED
33-10-A-2	1364	Akua of ohia wood	Hawaiian Islands	

DATE RECEIVED.	FROM WHOM RECEIVED	ORIGINAL NUMBER	REMARKS
	Trustees of Oahu College		Much decayed. Presented by the Trustees of Oahu College. 42 inches high. very crude.

The following is a copy of the artifact card presently on file at the Anthropology Department of the Bishop Museum.

1364	A
Received	Idol. Akua. T22 Of ohia wood; much decayed; Presented by the Trustees of Oahu College. 42 inches high. Very crude. Hawaiian Ids.
Room 33 Case 10-8-5 7/75	Given by G-Trustees of Oahu College Native name Akua photo 783 19248-9,10,11

No accession number could be found for this artifact.

30.) Within the eleven page long "Inventory of Hawaiian and Micronesian Curios loaned by the American Board, Boston, to the Bernice Pauahi Bishop Museum, Honolulu, H.I., March 1895." can be found the following entry.

No.	How many articles	Full name and description	No. of case in which packed	If injured in any way Remarks note particular
249	7768 1	1 Cocoanut Cup	9	

31.) The full notation entered in the Ethnological Catalogue, held at the Anthropology Department of the Bishop Museum, reads:

ACQUISITION NUMBER	DEPARTMENTAL NUMBER	SPECIMEN	LOCALITY	HOW ACQUIRED
Ex 7768	1895.01	Awa cup of a kahuna	Hawaiian Islands	Kahoolawe P.

DATE RECEIVED	FROM WHOM RECEIVED	ORIGINAL NUMBER	REMARKS
1895	A.B.C.F.M. of Boston.	249.	Exch. Mr. Wm Richards. Berne M. Kahoolawe. Kahuna shape; in this every chief or person of importance who visited Kahoolawe drank awa to the god of that island as it was supposed that any one not doing so would be destroyed by a shark on his return; cracked."

The following is a copy of the accompanying artifact card presently on file at the Anthropology Department of the Bishop Museum.

7768

Kahuna awa cup

Received
1895
BP-3787
Exch.
Berne M.
Apr. 1903

Small coconut cut lengthwise; in this every chief or person of distinction who visited Kahoolawe drank awa to the god of that island as it was believed that anyone not doing so would be destroyed by a shark on his return; cracked; sent by Mr. Wm Richards to the A.B.C.F.M. from whom it was purchased
249.

32.) "At the time when the earth and the Hawaiian archipelago were established, 'awa was not obtainable. It was held tabu by the gods. At the time when gods mingled with men and they talked to each other, the gods fetched this food down from Hoanianiku, a realm of the gods, and gave it to man to plant and to drink.

'Awa was a refuge and an absolution. Over the 'awa cup were handed down the tabus and laws of the chiefs, the tabus of the gods, and the laws of the gods governing solemn vows and here the wrongdoer received absolution of his wrongdoing. That was the way, and the priestly practice, of ka po'e kahiko [the people of old]. With 'awa they soothed and appeased the burning wrath of the gods. This was how it was recognized that the gods heeded the repentance of the people: they increased "food" and "fish" and mankind; and they warded off misfortunes that might come, such as diseases, epidemics,

contagious diseases, and sudden disasters." (Kamakau 1976:43-44)

33.) The details of this exchange are outlined in documents on file at the Anthropology Department of the Bishop Museum. The invoice for the shipment of these artifacts reads as follows.

"LIST of SPECIMENS from the Hawaiian Islands, sent to the HISTORICAL MUSEUM at BERNE, Switzerland."

Catalogue No.

7768

Awa cup of a kahuna.

IN EXCHANGE for a COLLECTION of LACUSTRINE [Swiss Lake Dwellers] IMPLEMENTS [BM No 5880] received through Mr. PAUL HOFER, of KAUI [Kekaha], H.I."
(Anthro. Dept. files, Exchanges, BP Series, Invoice No. BP-3787)

An accession form, also on file in the Anthropology Department, indicates that on March 13, 1901, the Museum received as an exchange from Paul Hoffer "tools from prehistoric Swiss site". (Catalogue number 5880, Accession number 1901.06.)

33.) The following is a brief review of the various scraps of information we possess concerning the Kaho'olawe image and 'awa cup.

Chronology:

1827 - Hoapiliwahine removes image and cup from Kaho'olawe.
1828 - Rev. Richards sends cup to ABCFM in Boston.
1895 - The cup is loaned, and then sold, to the Bishop Museum.
1903 - The cup is exchanged to the Historical Museum of Berne, Switzerland.

Description:

The Image:

"The Tahoolawe god or god of the shark"; a "weatherbeaten idol which has for a number of years, been had in great veneration and received sacrifices of some sort or other from every native that passed the island." It is "much defaced and too rotten".

The Cup:

A "Small coconut cut lengthwise"; "Kahuna shape", "cracked". "The cup from which all his [the god of the shark's] votaries drank to his worship". "In this every chief or person of distinction who visited Kahoolawe drank awa to the god of that island as it was believed that anyone not doing so would be destroyed by a shark on his return."

34.) *Mana* can be thought of essentially as spiritual power. It derives originally from the gods. Every part of the

natural world, animate or inanimate; be it a place, a tree or a man, possesses a certain amount of *mana*. Since the *ali'i*, those of the chiefly lines, could trace their genealogies back more directly to the gods, they are invested with greater *mana* than the *maka'ainana*, the common people. A certain amount of an individual's *mana* was transferred into the things he owned or the objects he touched. An heirloom, passed down through many generations, particularly in a chiefly family, can be thought of as having acquired a great amount of *mana*. The same is true of a religious object which has received many sacrifices, or one which has been touched by many chiefly hands.

Chapter IX

PU'U O MOAULAIKI

*"Dust is spreading over Mount Moa'ula.
Gathering place of the kahuna classes to study astronomy.
Stone of deep magic of Keaweiki."*

(Harry Mitchell in Thomas Keene's "Ethnography
and Cultural Values" 1983:60).

When one looks out from the shores of Lahaina, across the strait of Kealaikahiki, the island of Kaho'olawe rests against the horizon like some great leviathan asleep on the crest of the sea. The dorsal fin which rises so prominently from the back of this sleeping sea creature is in actuality a small cindercone set against the slope of Pu'u o Moaulanui. This hill, known today as Pu'u o Moaulaiki¹, is one of the most distinctive physical features on Kaho'olawe. Its easily recognizable profile can be seen from almost anywhere on the northern half of the island.

Climbing to the crest of this cindercone, one is rewarded with a panoramic view encompassing almost the entire island of Kaho'olawe, her encircling channels and her surrounding sister islands.² The summit of Pu'u o Moaulanui, the gently sloping hill on which this cindercone rests, is the highest point on Kaho'olawe. It is unique in being the only such high point, on any of the major Hawaiian islands (with the possible exception of Ni'ihau), which is cloud free for most days of the year. As such, it provides one of the few places in these islands where one can gain an uninterrupted view to all points of the compass. The summit of Pu'u o Moaulaiki, which is only slightly lower than that of her larger sister, provides a strikingly similar view. The possibilities for celestial and navigational observation provided by such a vantage point were not lost on the ancient inhabitants of Kaho'olawe, and tradition suggests that in centuries past the peak was used as a natural observatory.

Our primary source for this tradition is the late Harry Kunihi Mitchell of Keanae, Maui. In the 1970s, Mitchell

wrote down from memory and translated a chant entitled "Oli Kuhohonu o Kaho'olawe Mai na Kupuna Mai", or the "Deep Chant of Kaho'olawe From Our Ancestor". This chant, which speaks of the island's various ancient names, includes the lines;

Dust is spreading over Mount Moa'ula.
Gathering place of the kahuna classes to study astronomy.
Stone of deep magic of Keaweiki.³

As a preface to the chant, Mitchell writes; "I heard this chant from the lips of my ancestors in the days of my youth. This is an old chant from the beginning of creation."⁴ In 1983, Mitchell indicated to anthropologist Thomas Keene that he had learned the words of the chant "in his youth (perhaps around 1930) and again as a young man (c. 1940s) from his Grandmother's cousin, Kealoha Kuike, and that he understands them to be ancient."

The stone to which the chant refers, the "Stone of deep magic of Keaweiki", is, Mitchell explained, the large flat slabs which rests near the northern edge of the summit of Pu'u o Moaulaiki.

Additional evidence that an ancient observatory may once have existed on or near Pu'u o Moaulaiki can be found in the unpublished papers of Inez Ashdown. Among the notes on Kaho'olawe places and place names which she prepared for Annie Rogers, sometime around 1976, Ashdown has written; "Aina said the astronomers had the heiau up between Pu'u Moaula and Lua-ma-ki-ka (it doesn't mean "moskito, makika"⁶) where navigators and students watched the stars from after sunset till after dawn.. They studied the currents, winds, tides".⁷ The "Aina" referred to in Ashdown's note is most probably Jack Aina, a paniolo who worked for her father on Kaho'olawe between 1917 and 1922, and who served as one of her primary sources of traditional information concerning the island.⁸

If one can take Ashdown's note as an accurate rendition of what Jack Aina told her, then, according to him, the place

at which the ancient Hawaiian astronomers studied the constellations was not atop Pu'u o Moaulaiki itself, but "between Pu'u Moaula [probably Pu'u o Moaulaiki] and Lua-ma-ki-ka [Lua Moaula, the caldera of Pu'u o Moaulanui]". Ashdown repeats this assertion in the outline for a speech she gave in February of 1976.; "Up by Moa'ula and Lua Makika the heiau was mainly for astronomers and navigation study, the only such teacher or kahuna whose name I have since long ago is Ku a Moana Ha whose twin sons or relatives were associated teachers"⁹

In a letter to E.H. Bryan¹⁰, written in June of that same year, Ashdown stated that;

Pu'u Moa-'Ula was for astronomy and this heiau-school was associated with Ka-lepe-a-Moa on the Crater rim of Heleakala[sic], and on the Pa-pa'a-nui ridge between Pu'u Keo-kea and Puka-o-ao (area of "White Hill, Red Hill and Kolekole above the present Crater House and south of "Science City," ...Somehow, the Kilo Ho-ku [astronomers] knowing the heavens were able to associate these hills to teach astronomy and navigation.¹¹

Here Ashdown appears to contradict her previous statements by asserting that "Pu'u Moa-'Ula was for astronomy". It could well be, however, that, as Jack Aina indicated, the heiau dedicated to the teaching of astronomy and navigation was situated on the slope of Pu'u o Moaulanui, somewhere between Pu'u o Moaulaiki and Lua Moaula, while the summit of Pu'u o Moaulaiki was used primarily as an observatory. This is, of course, only speculation. From Ashdown's few, scattered references, it is difficult to reconstruct exactly what took place where.¹²

We do, however, possess concrete physical evidence that an ancient site of some sort, possibly a shrine, once existed on the peak of Pu'u o Moaulaiki. When the members of the 1976-80 archaeological survey visited the peak, they found that the broad stone outcrop which forms its highest point had been edged with set stones to transform it into a level

platform.¹³ This platform stands immediately above and to the south of the flat on which rests the stone of Keaweiki.

The absence of any shell midden or other occupation debris on or around the platform suggests that it did not served as a house foundation. The presence of scattered fragments of coral, however, was taken by the archaeologists as an indication that it may have formed part of a shrine.

Along the western slope of the outcrop, just below the level of the platform and out of the wind, the survey team discovered a low overhang which, they suggested, may have been used as a temporary shelter by those visiting the platform.¹⁴

In their notes concerning the site, the archaeologists indicated that; "The two features of Site 202 are badly disturbed by military activity and temporary construction at Moaula Peak." It appears that just prior to the 1976-80 archaeological survey the U.S.Navy had attempted to construct a radio or radar tower on the the summit of Pu'u o Moaulaiki. This construction appears to have damaged the western edge of the platform. A large pit, excavated during the work, can still be seen today on the slope just below the platform.

It is difficult to assess the full extent of the damage caused by (and the information lost as a result of) this construction activity. Fortunate, the 1976-80 survey was not the first time that the archaeological sites atop Pu'u o Moaulaiki had been visited and mapped. Tucked away within the files of the Anthropology Department of the Bishop Museum, and long forgotten, lie five loose-leaf pages of notes, maps and photographs of Pu'u o Moaulaiki as it existed in 1939. In that year the Museum mounted an expedition to Kaho'olawe led by E.H. Bryan.¹⁵ Among the areas visited by this expedition were the adze quarry at Pu'u Moiwi and the peak of Pu'u o Moaulaiki.

Continuing the system of site numbers initiated eight years earlier by Gilbert McAllister, the expedition members designated the ancient remains atop Pu'u o Moaulaiki as Site

51. Their survey maps of these structures include one drawn of the platform itself (and revealing a great deal more than the similar map drawn by the 1976-80 survey team), one of the area to the south of the platform and a third of the area to the north. These latter two maps show the presence of seven *ahu*, or rough piles of stone, all of which line up along a northeast to southwest axis aligned with the eastern edge of the platform.¹⁶ The third map also reveal an eighth such pile of rock resting atop the stone of Keaweiki.¹⁷

Given what we know of Pu'u o Moaulaiki from oral traditions, it seems possible that these *ahu* may originally have served as aids in taking astronomic or navigational sightings. The discovery of these maps, as well as their accompanying photographs and notes, suggests that there is more to the Pu'u o Moaulaiki site than we once assumed. With this additional information at our disposal, it seems an appropriate time to undertake a new, and more thorough, survey of the peak. We need to discover not only how many of the *ahu* recorded in 1939 have survived, but also how they relate to each other and to other possible sighting points. If the structure situated atop the cindercone of Pu'u o Moaulaiki is indeed a, "Gathering place of the kahuna classes to study astronomy", then these stone remains may provide us with valuable clues to understanding the breadth of knowledge and skill possessed by the ancient Hawaiian navigators.

Notes

1.) In their book, Place Names of Hawaii, Pukui, Elbert and Mookini translate "Moa-'ula" as meaning literally "red chicken". (Pukui, Elbert & Mookini 1974:153; for a discussion of alternative translations see Chapter VII, pages 167-168 and notes 16 & 17) The prefix "Pu'u o" simply designates this peak as "the hill of", while the adjective "iki" (small) has been used to distinguish the cindercone from its much larger sister, Pu'u o Moaulanui.

When, in 1875, King David Kalakaua and his entourage visited Kaho'olawe, they rode inland from Honokoa on horseback. The reporter for the Hawaiian language newspaper Ka Lahui Hawaii, who accompanied the King's party, remarked that; "When one turns and looks towards Molokini, there is one high hill, namely the hill of Ulapuu [incorrectly spelled "Ulapau" in Silva's translation]." (Ka Lahui Hawaii, 12/30/1875:4:c.2, a translation from the original Hawaiian is provided by Carol Silva 1983:62). The "high hill" referred to in the Ka Lahui Hawaii article appears to have been Pu'u o Moaulaiki, which is clearly visible from the grasslands above Honokoa, and would have stood out distinctly against the sky line (as opposed to Pu'u o Moaulanui, which would have appeared as a broad, dome-shaped swelling of the earth). "Ulapuu" (a reversal of Pu'u Ula), may be taken as meaning "red hill", and could possibly be an abbreviation of Pu'u Moa Ula. On a map of Kaho'olawe drawn sometime around 1889 (Doc. 1126 in the Hawaii State Survey Office), the hill is referred to by its more common name, "Puu o Moaula".

2.) Since Pu'u o Moaulaiki, which stands at an elevation of 437 meters (1444 feet), is slightly lower than the crest of Pu'u o Moaulanui (452 meters or 1477 feet), its panorama is slightly blocked to the southeast by the larger peak. The difference in elevation, however, is so small that this angle of view is only slightly disrupted.

3.) The text of this chant was first published in the Hawaiian language newspaper Ka Makani Kahuakane [date?], and later included as an appendix in Thomas Keene's 1983 report on the cultural significance of Kaho'olawe. (Keene 1983:60) It is printed in full in Appendix AB of this report.

When considering Mitchell's chant and its reference to *kahuna* "Gathering" at Pu'u o Moaulaiki, it is interesting to recall the legend of Puuiaiki as it was related by A.D. Kahaulelio, and how it speaks of "the prophet ["makaula"] Moaula, and that is the little hill standing on Kaho'olawe and that is the only mountain of that land." (Kahaulelio 1902:26, see Appendix L)

4.) Keene 1983:60.

6.) Ashdown appears to be suggesting here that the name Lua Makika does not mean, as Mary Kawena Pukui has translated it, "mosquito pit". (Pukui, Elbert & Mookini 1974:135) In Ashdown's private papers are to be found other possible translations of "Makika". Within a list entitled "Summit and upland names on Kaho'olawe map", she mentions that Makika; "Refers to a blight but usually is translated as Mosquito hole." (a copy of this list rests among the Ashdown Papers at the Maui Historical Society) In another instance (on page 6 of her March 27th, 1960 letter to Mary Kawena Pukui) Ashdown translates the word as; "Ma-Ki-ka, leader of the opelufishing men. Ma, as he and his company." (this letter is also on file at the Maui Historical Society). No other reference could be found, either in her own notes or elsewhere in the traditional literature, to an individual named Ki.

7.) Copies of these notes, entitled "For Annie Rogers from Inez Ashdown..Kaho'olawe", can be found among Ashdown's papers on file at the Bishop Museum Archives.

8.) "Jack" Aina Kailipalauli was the foreman at the Kahoolawe Ranch from 1917 to around 1922.

9.) The outline for this speech can be found in the collection of Ashdown's papers held at the Maui Historical Society. The source of her information concerning Kuamoanaha and Kaho'olawe appears to have been Pilahi Paki, for, in a letter to Mary Kawena Pukui, Ashdown writes; "Pilahi Paki, my

dear friend from Laha'ina, told me that Kaho'olawe used to be of great importance to fishermen, in ancient times. It was the home of the mighty Ku-a-moana-ha who possessed the vast knowledge of the sea. He knew all the tides, depths, currents, fish, plants, animals and mammals of the ocean, as well as the winds and clouds, the stars and navigation etc.. He charted courses for ocean voyaging for the Kahuna of the sea, and made the law (the Kana-wai?) that governed the subjects of his domain. All men who wished to become masters of these arts, and of fishing, went to Kaho'olawe to study under Kuamoanaha."

Ashdown goes on to say that; "He had three sons to whom he entrusted his blessing and vast knowledge. To Ku-ha'i-moana he gave the northern waters of the Pacific, especially the ones of Kaua'i and Ni'ihau. To Komo-li'i, the second son, he gave the area of east and south, including Maui, Moloka'i, Lana'i, Kaho'olawe, and Hawaii. To Kanaka-lulu-kai, the youngest, he gave the guardianship of the shores and waters of the western Pacific, particularly the island of O'ahu." (a copy of Ashdown's letter to Pukui, dated 27 March, 1960 is held at the Maui Historical Society. This quote is taken from page 4 of that letter)

The author has been unable to find any mention of Kuamoanaha in any other source of Hawaiian traditional literature. The first son of Kuamoanaha (as listed by Ashdown) is, however, quite well known. Kuhaimoana was a famous *mano kumupa'a*, an ancestral shark deity similar in nature to Kamohoali'i. Martha Beckwith describes him as, "the largest and most celebrated of Hawaiian shark gods," some thirty fathoms long, with a mouth as big as a grass house. He is king shark of the broad ocean, lives in deep water off Kaula islet, and is said to be a man-eater". (Beckwith 1970:129[?]) Like their father, the second two sons do not appear in the traditional literature.

10.) Bryan, who himself had visited Kaho'olawe, once in 1931 and again in 1939, was at that time a geographer at the Bishop Museum.

11.) Ashdown's letter to E.H. Bryan, dated June 1976, is among her personal papers on file in the Maui Historical Society. This quote is taken from page 3 of the letter)

12.) In 1979, when writing her book Recollections of Kaho'olawe, Ashdown stated that in ancient times there was a medical temple, a shrine of the kahuna lapa'au, atop Moa-ula. To this class of kahuna, she says, Kaho'olawe was known as the island of Soul-cleansing. "To the medical men, or Kahuna Lapa'au, the Cross [the constellation of the southern cross] was a symbol of the seaweed (limu) known as A'ula or Limu Ha-ula, which they used at the medical temple atop the island at Moa'ula. To these doctors the island was known as the Isle of Soul-cleansing. There, alone with the land, the sea, the

sky, and all the beauty of Light and Creation, the man who was ill could come to realization of his Beginnings, his humility and gratitude, and his spiritual strength." (Ashdown 1979:49)

Ashdown gives no source for these statements. As with almost every scrap of traditional information contained within her writings, one is faced in the end with a contradiction. Was the *heiau* atop Pu'u o Moaulaiki a medical temple used by the kahuna lapa'au? Did the pu'u serve as a navigational observatory? Or was it both? We just don't know.

13.) This platform was recorded by the 1976-80 survey as Site 202, Feature A. The "National Register of Historic Places Inventory -- Nomination Form" for the site describes it as, "a platform with stone retaining walls surrounding a large flat rock outcrop measuring 15 by 8 meters. The top surface of the outcrop has rock crevices filled with stone rubble and is built flat on the north side by a retaining wall 3.5 meters long and 85 cm high. Another platform retaining wall is located on the west side of the platform but is badly disturbed by the recent construction of a radio or radar tower. It is 1 meter high and 30-40 cm wide. Fragments of unworked Porites and branch coral, whose presence was often a symbol of sanctity in ancient Hawaii, suggest that this structure may have been a shrine." (like all of the Kaho'olawe "Nomination Forms", the form for Site 202 is on file at the Hawaii State Historic Preservation Office)

14.) Designated as Site 202, Feature B, this overhang was described by the survey team as, "a long rock shelter west of the platform on the same outcrop. The rock shelter is 12.5 meters long 3 meters deep and 80 cm high. Although there are no present signs of prehistoric occupation, the soil fill is extensive." (the Site 202 "Nomination Forms" is on file at the Hawaii State Historic Preservation Office)

15.) This was the Museum's fourth expedition to the island. The first two were undertaken in 1913 and are described in the field notes of J.F.G. Stokes who served as archaeologist on the expedition (see Appendix W) The third was conducted in February of 1931 by E.H. Bryan and Gilbert McAllister and written up in McAllister's Archaeology of Kahoolawe. This fourth and final expedition appears to have involved Bryan as well as Jack Porteus and Gordon Bowles. In the "Report of the Curator of Collections for 1939" (which is included in the Report of the Director for 1939) Bryan writes; "With Gordon T. Bowles and Jack Porteus, a field trip was made on January 7 to Kahoolawe on the U.S. Coast Guard vessel Reliance." (Buck 1940:27) The photographs which accompany the map in the Anthropology Department files are labeled "Jack Porteus", suggesting that they were taken by Porteus (who may possibly have also drawn the map). The Museum's artifact

catalogue also reveals that Porteus and Bowles donated a number of artifacts collected from Kaho'olawe to the Museum in 1939. These artifacts consist primarily of stone implements such as adzes, files and *ulu maika*.

16.) Documentary evidence suggests that at least one of these *ahu* was used (and perhaps either built or modified) during the mapping of Kaho'olawe undertaken in the 1860s by members of the Hawaii Government Survey. At that time an effort was made to survey and map all of the main islands in the Hawaiian chain. Since Pu'u o Moaulaiki was the most prominent landmark on Kaho'olawe, it was used as the primary survey station for the island. In the Archives of the Bishop Museum is a list of "stations", "azimuths", "balk azimuths" and "log. U.S. feet", which appears to represent bearings taken from the station atop Pu'u o Moaulaiki to points on the surrounding islands. This list is entitled "Kahoolawe, notes on bearings", and contains the reference; "On the summit of a conical rocky hill in the west central part of the island of Kahoolawe called Moaula. Mark- an iron pile & cairn of stones. Tripod signal." (the list is housed in the Archives of the Bishop Museum - SC Stokes, Gr.2, Box 2-13) In one of Jack Porteus' photographs taken in 1939 can be seen a large cairn just north of the stone of Keaweiki, and rising out of it is what appears to be a rusted iron bar. This may be the "Tripod signal" mentioned in the "Kahoolawe, notes on bearings".

17. This *ahu* can also be seen in one of the Porteus' photographs.

Chapter X

PAPAKA

*"The name of this inhospitable island was Tahoorowa."
(Washington Irving Astoria 1836:II:239)*

The 'ili of Papaka¹ is composed of two relatively narrow gulches which are today referred to as Papaka and Papakaiki (Papaka and little Papaka).² Both of these gulches are fronted by sandy beaches and crescent bays. Both also show evidence of having been home to a small native Hawaiian community.

Papaka, like most of Kaho'olawe's north coast bays, is bounded by rocky headlands and backed by a waning moon of dark sand. The valley itself is relatively narrow, with steeply sloping sides. There is relatively little archaeological evidence of human habitation in the gulch, and these few traces lie on the valley floor, which has been heavily impacted by storm waves and flooding.³

A deposit of marine shells and bird bone can be seen eroding out of the face of a streamcut on the eastern side of the gulch.⁴ Judging from the jumbled nature of the material visible, it would appear that this cultural deposit had been "mixed" by the action of storm waves and may have originated further up the slope.

Storm damage is also evident when one examines the remains of a structure on the opposite side of the gulch.⁵ Here lie the remnants of what may once have been a terrace, though today it consists of little more than a jumble of rocks and scattered midden. Both of these features may at one time have been house site. From their present condition, however, it is impossible to determine their original function.

Equally unimposing in its appearance is a cluster of stones lying towards the center of the beach. Examining this concentration of water rounded boulders, one can just make out what may once have been the edges of a platform⁶, though

both sides of the feature have been eaten away by the stream⁷
 Today it is easy to pass by this scatter of rocks without
 taking any notice of it. Such was not the case, however,
 back in 1913 when J.F.G. Stokes first visited the valley.

In the fieldnotes which record his archaeological survey
 of Kaho'olawe, Stokes makes the following entry for February
 28th.

Feb. 28. Low, Pilsbry & Forbes rode to W. end of
 island. Cooke, Maikai & I fished. I watching
 coast for caves also. Several caves, but shallow.
 When I reached the 2nd bay to the E.⁸ I quit
 fishing & examined a platform which Cooke called a
 heiau.⁹

In location, Stokes' possible *heiau* appears to match the
 site of our present unimpressive stone scatter. At that
 time, however, it looked quite a bit different.

? Heiau in 2nd East bay on beach composed of two
 platforms. The lower, in front 26' wide the
 higher, 14' wide behind. Present meas. of heiau
 app. 40' wide & 45' long, but stream prob. has cut
 through western end, carrying away 15 ft. All
 meas. app. as this place is all but demolished.

In line with was & 48 ft to East is remains of
 another plat 10' x 18' cutaway by another stream.¹⁰

This site which, though "all but demolished" in 1913,
 was still impressive enough for Stokes to suggest that it may
 once have been a *heiau*, is hardly recognizable today.
 Stokes' description of the structure, with its two distinct
 platforms, makes vividly clear just how much damage the years
 of neglect have brought to this and other of Kaho'olawe's
 archaeological sites.

The one scrap of ethnographic evidence we possess
 regarding the valley of Papaka comes from the private papers
 of Inez Ashdown. In them she notes that; "Where we had the
 10 000 gal redwood tank in the next gulch on Maui side of Ku
 Heeia is Kaipapa'u Bay where Kanaloa (the god or man) lived
 and here was the old stone-paved well."¹¹

The remains of the redwood tank Ashdown mentions can still be seen at the eastern edge of Papakanui beach. It, along with another tank positioned further out on the point¹², were used to hold water shipped over by boat from Maui.¹³ A cement watering trough¹⁴ lies just west of the tanks, almost completely buried by sand. These tanks and their accompanying trough date from the early years of this century, when Ashdown's father, Angus MacPhee, controlled the Kahoolawe Ranch. They are the only historic structures in the gulch. Their presence, here in the valley of Papaka, seems to identify this spot as being the "Kaipapa'u Bay"¹⁵ mentioned by Ashdown.¹⁶

Kanaloa is one of the ancient names for the island of Kaho'olawe. It is referred to by this name in the chants which relate the mythic birth of the various Hawaiian islands.¹⁷ In remarking on the origins of this ancient name, Samuel Kamakau states that;

In the traditions and prayers and chants of *ka po'e kahiko* [the people of old], it is often said that the gods came from Kahiki, from upper space, *lewa lani*, and from the heavens, *lani*.

According to the *mo'olelo* [legend] of Kane and Kanaloa, they were perhaps the first who kept gods ('o laua paha na kahu akua mua) to come to *Hawai'i nei*, and because of their *mana* they were called gods. Kaho'olawe was first named Kanaloa for his having first come there [from Kahiki] by way of Ke-ala-i-Kahiki. From Kaho'olawe the two went to Kahikinui, Maui, where they opened up the fishpond of Kanaloa at Lua-la'i-lua, and from them came the water of Kou at Kaupo."¹⁸

Ashdown's identification of Papaka as the spot where Kanaloa (this ancient navigator and/or god) dwelt, is at present unsupported by any other oral or written traditions.

Papakaiki gulch is only marginally smaller than her sister. The bay here consists of a swath of dirt stained sea wedged between steep headlands. The valley floor, though relatively restricted, appears, as at Papaka, to have been the primary site of prehistoric habitation.

On the western bank of the dry streambed, just back of the beach, stands a raised soil terrace. This natural feature provides the only area of level land in the valley. Atop it can be seen the remains (partially buried by recent alluvium) of stone alignments which may at one time have served as house foundations.¹⁹ There are also a few rough stone terraces up along the slopes²⁰, though the steepness of the valley sides seems to have limited habitation there. As at neighboring Papaka there are indications that portions of the rockstrewn floor of the upper valley have been cleared, possibly to open up the land for the planting of sweet potato and other crops. In all, the valley seems, in ancient times, to have supported a small but stable Hawaiian community.

There is strong evidence to suggest that the valley of Papakaiki was abandoned some time in the early historic period, before Kaho'olawe was leased for sheep ranching. A large stone walled corral stands on the alluvial flat, atop the area which appears to have once supported the bulk of the valley's prehistoric population.²¹ Stones from pre-existing house foundations were probably used in the construction of this wall, further diminishing what little remained of the earlier occupation.

At present there is no way to determine the exact age of this corral, but the structure may have been built relatively early in the ranching period, and probably served as a holding pen for livestock prior to their being shipped to Maui. With its steep sides and narrow floor, the valley acted as a natural funnel to trap and channel livestock driven down from the uplands.

Long before the ranching period, however, the valley of Papakaiki served as the setting for a little known, but quite revealing, incident in Kaho'olawe's early post-contact history. On one of the maps which archaeologist J.F.G. Stokes drew of the island following his visit in 1913, he label Papakaiki bay as "Lark B."²² This name, "Lark B[ay]", may be derived from the name of a ship, the *Lark*,

which was cast onto the shores of Kaho'olawe back in 1813. It seems possible that Stokes learned from one of his informants that the *Lark* had been wrecked at Papakaiki, and that this alternative name for the bay, Lark Bay, served as a reminder of that incident. The *Lark* itself was a schooner purchased in 1813 by the American entrepreneur John Jacob Astor to transport much needed supplies to his infant colony of Astoria, which lay at the mouth of the Columbia River on the northwest coast of America. Neither the ship, nor the colony, survived.²³ Washington Irving, who was later commissioned by Astor to write an account of this illfated venture, provides us with a detailed account of the final voyage of the *Lark*.²⁴

The *Lark* sailed from New York on the 6th of March, 1813, and proceeded prosperously on her voyage, until within a few degrees of the Sandwich Islands.²⁵ Here a gale sprang up that soon blew with tremendous violence.²⁶ The *Lark* was a staunch and noble ship, and for a time buffeted bravely with the storm. Unluckily, however, she "broached to," and was struck by a heavy sea, that hove her on her beam-ends. The helm, too, was knocked to leeward, all command of the vessel was lost, and another mountain wave completely overset her. Orders were given to cut away the masts. In the hurry and confusion, the boats also were unfortunately cut adrift. The wreck then righted, but was a mere hulk, full of water, with a heavy sea washing over it, and all the hatches off. On mustering the crew, one man was missing, who was discovered below in the forecabin, drowned.

In cutting away the masts, it had been utterly impossible to observe the necessary precaution of commencing with the lee rigging, that being, from the position of the ship, completely under water. The masts and spars, therefore, being linked to the wreck by the shrouds and the rigging, remained alongside for four days. During all this time the ship lay rolling in the trough of the sea, the heavy surges breaking over her, and the spars heaving and banging to and fro, bruising the half drowned sailors that clung to the bowsprit and the stumps of the masts. The sufferings of these poor fellows were intolerable. They stood to their waists in water, in imminent peril of being washed off by every surge. In this position they dared

not sleep, lest they should let go their hold and be swept away. The only dry place on the wreck was the bowsprit. Here they took turns to be tied on, for half an hour at a time, and in this way gained short snatches of sleep.

On the 14th, the first mate died at his post, and was swept off by the surges. On the 17th, two seamen, faint and exhausted, were washed overboard. The next wave threw their bodies back on the deck, where they remained, swashing backward and forward, ghastly objects to the almost perishing survivors. Mr. Ogden, the supercargo, who was at the bowsprit, called to the men nearest to the bodies, to fasten them to the wreck; as a last horrible resource in case of being driven to extremity by famine!

On the 17th the gale gradually subsided, and the sea became calm. The sailors now crawled feebly about the wreck, and began to relieve it from the main encumbrances. The spars were cleared away, the anchors and guns heaved overboard; the sprit-sail yard was rigged for a jury-mast, and a mizzen topsail set upon it. A sort of stage was made of a few broken spars, on which the crew were raised above the surface of the water, so as to be enabled to keep themselves dry, and to sleep comfortably. Still their sufferings from hunger and thirst were great; but there was a Sandwich Islander on board, an expert swimmer, who found his way into the cabin, and occasionally brought up a few bottles of wine and porter, and at length got into the rum, and secured a quarter cask of wine. A little raw pork was likewise procured, and dealt out with a sparing hand. The horrors of their situation were increased by the sight of numerous sharks prowling about the wreck, as if waiting for their prey. On the 24th, the cook, a black man, died, and was cast into the sea, when he was instantly seized on by these ravenous monsters.

They had been several days making slow headway under their scanty sail, when, on the 25th, they came in sight of land. It was about fifteen leagues distant, and they remained two or more days drifting along in sight of it. On the 28th, they descried, to their great transport, a canoe approaching, managed by natives. They came alongside, and brought a most welcome supply of potatoes. They informed them that the land they had made was one of the Sandwich Islands. The second mate and one of the seamen went on shore in the canoe for water and provisions, and to procure aid from the islanders, in towing the wreck into a harbor.

Neither of the men returned, nor was any assistance sent from shore. The next day, ten or

twelve canoes came alongside, but roamed round the wreck like so many sharks, and would render no aid in towing her to land.

The sea continued to break over the vessel with such violence, that it was impossible to stand at the helm without the assistance of lashings. The crew were now so worn down by famine and thirst, that the captain saw it would be impossible for them to withstand the breaking of the sea, when the ship should ground; he deemed the only chance for their lives, therefore, was to get to land in the canoes, and stand ready to receive and protect the wreck when she should drift to shore. Accordingly, they all got safe to land, but had scarcely touched the beach when they were surrounded by the natives, who stripped them almost naked. The name of this inhospitable island was Tahoorowa [Kaho'olawe].²⁷

In the course of the night, the wreck came drifting to the strand, with the surf thundering around her, and shortly afterwards bilged. On the following morning, numerous casks of provisions floated on shore. The natives staved them for the sake of the iron hoops, but would not allow the crew to help themselves to the contents, or to go on board the wreck.

As the crew were in want of everything, and as it might be a long time before any opportunity occurred for them to get away from these islands, Mr. Ogden, as soon as he could get a chance, made his way to the island of Owyhee [Hawai'i], and endeavored to make some arrangement with the king for the relief of his companions in misfortune.

The illustrious Tamaahmaah [Kamehameha], as we have shown on a former occasion, was a shrewd bargainer, and in the present instance proved himself an experienced wrecker. His negotiations with M'Dougal, and the other "Eris of the American Fur Company," had but little effect on the present circumstances, and he proceeded to avail himself of their misfortunes. He agreed to furnish the crew with provisions during their stay in his territories, and to return to them all their clothing that could be found, but he stipulated that the wreck should be abandoned to him as a waif cast by fortune on his shores. With these conditions Mr. Ogden was fain to comply. Upon this the great Tamaahmaah [Kamehameha] dispatched his favorite, John Young, the tarpawlin governor of Owyhee [Hawai'i], to proceed with a number of the royal guards, and take possession of the wreck on behalf of the crown. This was done accordingly and the property and crew were removed to Owyhee

Notes

1.) On the c.1889 map which shows the various 'ili of Kaho'olawe (Doc. 1126-a, on file in the Hawaii State Survey Office), the land divisions of Kaulana and Papaka appear reversed (Kaulana to the east, Papaka to the west). Since its companion map, which provides the island's place names (Doc. 1126-b, also on file in the Hawaii State Survey Office), shows "Kaulana bay" and "Papaka bay" in what we would consider their proper positions (Kaulana to the west of Papaka), we can only assume that their reversed placement on the 'ili map was an error.

2.) There exists some question as to which of these two bays originally bore the name Papaka. On a circa 1889 sketch map of Kaho'olawe labeled Document 1126 and held in the Hawaii State Survey Office, the name "Papaka bay" has been written opposite a mark on the island's northeast coast somewhere between "Kaulana bay" and "Waaiki Bay". The lack of detail on this map, however, makes it impossible to determine exactly which bay this name refers to.

Our next reference to Papaka appears on a 1911 map of the island to which names have been added by Christian Conradt, the former owner of the Kahoolawe Ranch. Conradt places the name "Papakanui" next to a bay on the northeast coast, two sandy bays east of Kaulana. When J. Kauwekane, a native Hawaiian familiar with Kaho'olawe, inscribed names onto a map given him by the Bureau of Agriculture and Forestry, he placed the name "Papaka" next to this same bay.

It is J.F.G. Stokes who, on a sketch map of Kaho'olawe which he drew some time after his 1913 trip to the island, appears to have moved the name "Papakanui Bay" from the bay marked by Conradt and Kauwekane to the slightly larger bay lying just to the west. Stokes may not have intended this move, however, for he has written the name "Papakanui Bay" immediately above the larger bay, but adjacent to the smaller one. Which of the two bays he is referring to is uncertain. We know that in 1917 names from Stokes' map were copied onto a new map by cartographers from the Board of Agriculture and Forestry. It seems likely that whomever copied the map simply assumed that "Papakanui Bay" applied to the westernmost of these two bays. Every map from 1917 onwards have followed this practice and assigned the name "Papaka" or "Papakanui" to the first bay east of Kaulana. A question remains, however, as to whether it might be more correct to follow Conradt and Kauwekane in assigning this name to the bay which is now commonly referred to as "Papakaiki". Since this debate remains unresolved, the author, to avoid confusion, has chosen to use the names of these bays as they appear on current maps.

The place name Papaka has been alternately translated as meaning "flat-surface" (McAllister 1933:58) and "drops" (Napoka 1983:4). What its true meaning is, and what

significance that meaning originally may have held, is uncertain.

3.) The entire coastal section of the valley of Papaka was designated by the 1976-80 archaeological survey as Site 180. The survey recorded two historic and three prehistoric features lying within this area. The slopes of the valley appear far too steep for habitation terraces to have been built against them. It seems that the bulk of the valley's prehistoric occupation was localized around the stream mouth. During a recent visit to Papaka the author noticed that, upstream from the beach, the valley floor turns stoney with large stream boulders covering the flat. In some places these boulders appear to have been cleared away to create open areas, either for habitation, or more likely as garden plots in which to plant crops.

4.) Site 180, Feature C. A description of this feature can be found on the "National Register of Historic Places Inventory -- Nomination Form" for Site 180, a copy of which is on file at the Hawaii State Preservation Office.

5.) Site 180, Feature A. A description of this feature can also be found on the "Nomination Form" for Site 180, a copy of which is on file at the Hawaii State Preservation Office.

6.) Site 180, Feature B. A description of this feature can also be found on the "Nomination Form" for Site 180, a copy of which is on file at the Hawaii State Preservation Office.

7.) The stream, when it is running, appears to encircle the structure.

8.) Stokes here appears to mean the second bay to the east of Kuheia, which was the site of the expedition's camp. Judging from the map, this bay would be Papakanui.

9.) Stokes 1913:7, see Appendix W.

10.) Stokes 1913:2, see Appendix W. The second platform, described by Stokes as lying to the east of his possible heiau, appears to have been completely washed away by the stream.

11.) This quote is taken from "Kahoolawe Place Names: Ashdown", a typescript of her handwritten list of place names compiled in 1976. She prefaces this list with the note; "Ashdown - Place names on Kahoolawe (according to list sent; plus what was taught to me from 1908 at Ulupalakua and 1916 by Eben Parker Low, Louis von Tempski and Jack Aina and other paniolo." A copy of the list can be found among the Ashdown papers held in the Archives of the Bishop Museum. A similar, though somewhat different quote can be found in Ashdown's "Map And Place Names Of Kaho'olawe" an undated

manuscript held at the Maui Historical Society. Here she lists "Kai-papau Bay where Kane dwelt. Here is the paved well which was ruined by the tidal wave which killed Kalani.." (page 3) The Kalani to whom she is referring here appears to be the "Palani" described in her unpublished 1975 article "Brother Death Visits Kaho'olawe" (page 10). In this article she writes; "The sampan showed up and Captain Yamaichi was curt and in a hurry. He claimed the sea was acting strangely, and of all of us he best knew "omens". The only laughing one was Aina's [Jack Aina] relative, the one I called Palani, a fine young Hawaiian always a willing worker and never gloomy. He was manning the rowboat loaded heavily to its gunwales and the sea was calm as the proverbial mill pond. Of a sudden the entire sea in the Bay appeared to rise up and form a towering wall of water. The sampan broke the anchor chain and old Yamaichi took the ship out of there, going like a scared rabbit. The rowboat rose up, too, and surfed at awful speed for the black-sand beach. Palani, standing at the stern and plying the sculling-oar with all his good strength and skill, looked like a warrior of old, unafraid and master of all he surveyed. The wave hit the beach, crushed the boat and flung the freight in all directions. We all ran to get Palani, lying inert on the sand. The men carried him to the house. He was dead. Jack Aina sat crooning beside the still figure. Papa poured a drink for each of us. We knew Yamaichi would steer for Maui and tell what had happened. The sheriff and a doctor came back with the ship and crew next day. We held final service for Palani, putting him to rest on the Point by the fishing shrine to Ku'ula-kai, there at Kuhe'eia.. He had liked to sit there, watching the sea, the sky, and all life that seemed so good to him."

The Kalani or Palani whom Ashdown speaks of may well be Keanini Kimokeo, the captain of the sampan "Heeia Maru", which was owned by the Oahu Shipping Co.. Kimokeo died of injuries sustained when a small boat he was rowing was tossed up onto the beach at Kuheia, and he was crushed beneath it. The accident occurred in January of 1919, when Kimokeo was unloading supplies for the ranch. He died two days later of internal injuries. (Maui News 1/24/1919:1:c.2) Kimokeo was buried on the ridge above Kuheia near the ranch foreman's house. (David Pedro, pers. comm. In a 1991 interview, Pedro referred to this as "the grave site of Homani". (Pedro 1991:11))

Kimokeo's death was reported in the Maui News as follows. "Caught beneath the gunwale of a small row-boat when a big wave overturned it and tossed it upon the beach of Kahoolawe, about 6 o'clock last Saturday evening, Keanini Kimokeo, captain of the sampan Heeia Maru, was so badly crushed that he died of his injuries about 8 o'clock the following Monday morning.

Kimokeo, though but 26 years of age, was one of the most valued employes [sic] of the Oahu Shipping Co., of which Eben

Low is superintendent. He had brought his vessel with a load of supplies for Low and Angus McPhee from Honolulu, and at the time of the accident had just rowed ashore in the tender to land the Japanese engineer. He was turning the boat to put back to the sampan, after landing his passenger, when the wave caught the boat broad-side, tossing it upon the beach upside down, with the boatman under it. The sea was not rough at the time.

The engineer, who witnessed the accident, raised the boat and the injured man was able to crawl out. He was taken in charge by Mr. and Mrs. McPhee who happened to be there at the time, though he did not appear to be very badly hurt. He refused to be taken over to Maui where he could have medical assistance. On Sunday his condition seemed better, but he became rapidly worse that night and died the following morning.

Word was sent to Sheriff Crowell, who made the trip to Kahoolawe with Dr. Osmer, the latter performing an autopsy which showed that the man had suffered a ruptured liver besides other internal injuries, which even with immediate surgical attention would have proved fatal.

The unfortunate man lived in Honolulu. He was unmarried." (Maui News 1/24/1919:1:c.2)

The similarities which exist between this incident, as related in the Maui News, and the events described by Ashdown, would seem to suggest that "Palani" was actually Keanini Kimokeo. The differences between these two accounts, however, demonstrate Ashdown's tendency to exaggerate reality for the sake of a good story. The rogue wave which overturned Kimokeo's tender bears little relation to the "tidal wave" which killed Palani.

Reading through Ashdown's papers it becomes increasingly apparent that not only did she on occasion alter events to better suit her story, but she also confused the places at which those events took place. In her 1975 article, Ashdown states that the paved well at "Kai-papau Bay" "was ruined by the tidal wave which killed Kalani" In a 1960 letter to Mary Kawena Pukui, however, (a copy of which is among her personal papers at the Maui Historical Society) she writes; "A huge tidal wave came, ruined our well at Hakioawa (The bitter Spring) (Literally translated). When the disturbance was over, our ship came bringing supplies. One of Dad's favorite young Hawaiian men, a sort of hanai to us, was rowing the boat into Ku Heeia when the sea rose up again, surfed him ashore and crushed him." (page 4) The events are obviously the same, but we are left to wonder which well was actually ruined. It appears that the more one reads, the more inconsistencies one encounters. The inconsistencies and inaccuracies which appear in Ashdown's recollections of events from her own life time make it difficult to place much trust in her statements concerning ancient events.

12.) These two 10,000 gallon wooden tanks were recorded by the 1976-80 archaeological survey as Site 108, Features D & E. Both are plainly visible in a photograph of the bay taken by E. H. Bryan in 1931 (Bishop Museum Neg. No.16586). The remains of the tank on the beach (Feature D) are still evident today, but the one at the point (Feature E) has been reduced to a pile of iron hoops. A tangle of iron piping, which formerly connected the two tanks, lies on the rocks between them.

13.) Ashdown appears to be referring to these tanks (though she changes the two 10,000 gallon tanks into one 20,000 gallon tank) when, in a letter to Mary Pukui, she mentions; "Also, we built a twenty-thousand gallon redwood tank at the bay just Maui side of Ku Heeia [Kuheia]. We used to fill the sampan, the Maizie C then, hold with fresh water at Kihei wharf and pump it into that tank at low tide in the early mornings before sunup." (from a letter to Mary Pukui dated 27 March, 1960 a copy of which is held among the Inez Ashdown Papers at the Maui Historical Society) Harold Stearns, who visited Kaho'olawe in 1939, at the time Ashdown's father, Angus McFee operated the Kahoolawe Ranch, also notes the presence of these tanks and explained that they were used to hold water brought over by boat from Maui. (Stearns 1940:129)

14.) This trough was not recorded by the 1976-80 survey. At that time it was probably buried beneath the drifting sand. No "stone-paved well" is known to have existed at Papaka, although Stearns makes mention of a ranch well built by von Tempski located somewhere in Kaulana valley, one bay to the west. (Stearns 1940:130) It is possible that Ashdown confused these two.

15.) The name Kaipapa'u can be translated literally as "shallow sea". (Pukui, Elbert & Mookini 1974:70) Ashdown appears to be the only source for this place name, and she gives no indication as to where she learned it.

16.) Papaka is actually two gulches "on [the] Maui side" of Kuheia, and not "the next gulch" as Ashdown indicates. On her personal copy of Gilbert McAllister's 1933 map of the island, a copy of which is held in the Archives of the Bishop Museum, Ashdown includes the note; "Kaipapau Bay, Kanaloa lived here, Here is a well". A line extends from this note to the bay of Kaulana, just west of Papaka. This note adds further confusion to the question of where "Kanaloa lived". The bay of Kaulana did at one time possess a stone lined ranch well (Stearns 1940:130), but the did not contain a "10 000 gal redwood tank". It is apparent that Ashdown is confused in her memory of the place.

17.) The island is referred to by this name in a chant composed by Kaleikuahulu, a member of the court of Kamehameha

I, and recorded by Abraham Fornander (Fornander 1919-20:VI:360). It is also found in a similar *mele* by the priest Pakui (Fornander 1916-17:IV:12).

18.) Kamakau, 1991:112.

19.) When the 1976-80 survey team visited Papakaiki, they recorded these stone structures as Site 187, Feature B. Although the survey noticed only one possible rectangular enclosure, the author, on his recent visit to the area, observed three possible house foundations. The ground surrounding these structures is covered with shell midden, a good indication that they did indeed serve as residential features.

20.) Site 187, Features G & I.

21.) The corral at Papakaiki was recorded by the 1976-80 survey as Site 187, Feature A.

22.) This map of Kaho'olawe, which shows Stokes' route of travel over the island during his first survey, is presently in the collection of the Bishop Museum Archives (HPF 2:8:11, Kahoolawe). On it, Papakaiki bay has initially been labeled as "Lark B", then this name has been crossed off and the bay relabeled "?Papaka B."

23.) Not long after the wreck of the *Lark*, the settlement at Astoria was seized by the British, who were then at war with the newly established United States.

24.) During the research involved in composing his account of the history of Astoria, Irving was granted access to all of John Jacob Astor's personal papers. Among these was a letter from Samuel H. Northrop, captain of the *Lark*, to Astor, detailing the events of the ship's sinking. This letter appears to have been the principle source for Irving's account of the disaster. Northrop's letter, the original of which rests among the Astor Papers held at the Baker Library of the Harvard Graduate School of Business Administration, has been reprinted in full (along with other accounts of the voyage) in Appendix M. Apparently, judging from what he says later on in his account, Irving also had at his disposal the original log of the voyage, the present location of which, if it still exists, is unknown.

Irving prefaced his record of the voyage of the *Lark* with the words; "The month of March arrived, and the *Lark* was ordered by Mr. Astor to put to sea. The officer who was to command her, shrunk from his engagement, and in the exigency of the moment, she was given in charge to Mr. Northrop [Samuel H. Northrop], the mate. Mr. Nicholas G. Ogden, a gentleman on whose talents and integrity the highest reliance could be placed, sailed as supercargo. The *Lark* put to sea in the beginning of March, 1813." (Irving 1836:II:431-432)

- 25.) Their location, as recorded by Captain Northrop, was Latitude 21° 30' north, longitude 150° west. (see Northrop's letter to Astor in Appendix M).
- 26.) The storm struck the ship on August 13th, 1813.
- 27.) Captain Northrope, in his letter to Astor, mentions that; "in this State we drifted down to the Islands and on the 29th of the month droave a shore on the weather Side of Tahoorowa". (see Appendix M)
- 28.) Irving 1836:II:235-239
- 29.) "White person...formerly, any foreigner". (Pukui & Elbert 1971:55)
- 30.) "Native-born". (Pukui & Elbert 1971:115)

Conclusions & Recommendations

This report does not pretend to be a definitive study of the various *wahi pana* of Kaho'olawe. The information presented here is but the tip of the iceberg, or rather, to use a more local simile, it is but the gatherings of a single net cast into a very broad bay.

What I think many of us tend to forget is that Kaho'olawe is an island, and not a particularly small one. It encompasses 45 square miles of headlands and hills, valleys and beaches. Each of these physical features was known, named and visited by the indigenous peoples who called this island their home. Each has its own story. Some of these stories have been forgotten and are forever lost to us. Others have been gathered here within the pages of this study. Still others remain waiting to be rediscovered.

In compiling the information presented in this report, the author has spent a great deal of time poring through documentary sources; studying ancient chants and legends, reading through missionary letters and government documents, and examining old charts and maps. Less time has been spent actively interviewing living informants. This was due primarily to the limited time frame of the study.

One of the first recommendations that needs to be made, therefore, is that the research not end here. Efforts must be undertaken to collect and record the surviving oral traditions of Kaho'olawe before the keepers of those traditions die and their wealth of knowledge disappears. The information contained within this study has provided us with a baseline. We now have a good understanding of the types of questions that need to be asked. We also possess the names of many *kama'aina* of the island, as well as others associated with Kaho'olawe. Within the families of these individuals there may yet survive personal stories and reminiscences of the island.

This quest to further collect and preserve the traditions relating to the island of Kaho'olawe does not need to take the form of another independent research study. It could easily be incorporated as an element within the ongoing management of the island's cultural resources. For these resources need both to be managed and protected.

This report has brought to light numerous instances of cultural sites deteriorating due, not only to natural processes such as erosion and wave action, but to human neglect, mismanagement and even, at times, wanton defilement. The Hawaiian islands possess only a finite number of sites such as Kamohio, and these sites cannot continue to be allowed to be desecrated.

Whoever takes on the role of land manager for Kaho'olawe needs to include within their management team a knowledgeable cultural specialist who is both familiar with the island of Kaho'olawe and with the traditional culture of Hawai'i as a whole. The job of this cultural specialist would initially involve bringing together (and making sense of) the mass of information collected by the 1976-80 island wide archaeological survey, by Rosendahl in 1982-3 and by the numerous other cultural and archaeological studies undertaken on the island to date.

After 16 year of research, we know a great deal about the various cultural sites on the island of Kaho'olawe. Yet, much of the information we do possess is at present unusable. It lies scattered, and to a large extent hidden, in various reports and site forms. For this information to be of use to us (and for the money spent in acquiring it not to have been wasted), someone needs to sit down and pull it all together. This raw data needs to be put into a form that is accessible to the land manager, so that it can be incorporated in any decision making process which might affect the islands cultural sites.

This information also needs to be updated. The 1976-80 survey was never intended to provide a complete inventory of the island's archaeological sites. The various survey teams involved in the project did an admirable job considering the limitations they were working under. But, as any member of those teams will tell you, the 1976-80 effort was intended only as a preliminary survey. Even during the author's own recent and relatively brief wanderings on the island, sites were discovered which do not appear on the National Register Site Survey forms. In addition, many of those sites which were recorded during that initial survey have undergone drastic changes in the decade since.

Initiating another island wide survey is not the answer. That stage of information gathering is behind us. What is needed is an ongoing effort to monitor the condition of those sites already known, and to gradually resurvey the island for any as yet undiscovered sites. This is a full-time, long-term task. It cannot be accomplished by hiring a team of outside experts, as has been attempted in the past. What is needed now is continuity. The task requires one individual (or, better still, a small group of individuals) who can follow the work through; someone who can come to know the island and its sites on a first hand basis, who can act as an on-island curator of those sites and who can provide the land manager with the up to date information needed to allow them to shape policies beneficial to those sites. What is needed, in essence, is a full time cultural specialist.

In cases where outside experts are required to assist in stabilizing or restoring sites, they should be supervised by the cultural specialist, who can then incorporate their findings into the growing data bank of information concerning the island. Only by maintaining this element of continuity

can we hope to solve the problems which presently beset Kaho'olawe's cultural sites.

This same cultural specialist (or team of cultural specialists) could act as curator not only of the island's sites, but also of its traditions. She or he could continue the work begun by this study in gathering together the island's stories, and in supervising the collection of oral histories related to the Kaho'olawe. As with the monitoring and preservation of cultural sites, this gathering of traditional information needs to be undertaken on a continuous basis by someone familiar with the island, both physically as well as culturally.

An additional component of this cultural specialist's role could be to help in disseminating the information gathered through these various studies. He or she could assist in compiling educational material for school groups and others visiting Kaho'olawe. This educational element is a vital one. The ultimate purpose behind acquiring this vast store of cultural knowledge has not simply been to lock it away in some archive, but to give it back to those to whom it truly belongs, the people of Hawai'i.

In closing, the author of this study would like to make one final recommendation; that the information contained within these pages not simply be read by the appropriate parties and filed away, as has happened so often in the past, but that ever effort be made to place these stories and traditions into the hands of those who really matter, the children of these islands. For they are the ones who will treasure them, and who will not let them be forgotten.

Appendix A

Kaho'olawe At The Time Of Western Contact

In the years immediately following Captain Cook's "discovery" of the Hawaiian chain, these islands were visited by a vast number of the Western vessels. Many of these ships steered a course which took them past the coast of Kaho'olawe. From the logs of these vessels and from the accounts of the officers and crew members who sailed aboard them can be gleaned the earliest written descriptions we have of Kaho'olawe. Since none of these early voyagers deigned to set foot on the island, their observations reveal Kaho'olawe as it appeared from a distance. Each description reflects both the physical and personal point of view from which that particular individual saw the island. Often these accounts reveal as much about the observer as they do about the island itself.

1779 - Resolution & Discovery

Following the death of Captain James Cook at Kealahou on Hawai'i, the vessels of his expedition, under the command of Captain James King, left the shores of the big island and proceeded northwest, up the chain. William Ellis, a member of the expedition, noted in his journal that; "It was the captain's [King's] intention to have gone to Mow'wee [Maui], but finding it impracticable to fetch it under two or three days (the wind, which continued to blow with violence, being against us), he gave up the point, and at nine the next morning (Feb. 24th), we bore away, intending to make the best of our way to A'tou'wi [Kaua'i]. At ten we discovered several patches of shallow water, fo stood right before the wind in order to avoid them, after which we resumed our former course again. This shoal-water was occasioned by a spit or bank, which ran in a S.W. direction from a small island called Kaaowra'vee [Kaho'olawe], nearly adjoining to Moe'wee [Maui]." (Ellis 1969:II:123-4)

The chart of Capt. Cook's passage among the islands suggests that the *Resolution* and *Discovery* passed quite close to the southwestern shore of Kaho'olawe. At that distance the crew of the vessels should have been able to see any huts or other signs of habitation on the low, pili grass covered terrain of the island's western end. In his journal, however, James King writes; "Wednesday 24th [1779]...Tahowrowe, the Western part of which we saw look'd very desolate, neither houses, trees, nor any cultivation that we saw:" (Beaglehole 1955-74: III: I: p.582). This and other descriptions given by various members of the crew (see Silva 1983:3-7), suggest that by the time of Cook's voyage the settlements at Hana Kanaia and the other bays along the southwestern end of the island had been abandoned.

1786 - Boussole & Astrolabe

Jean-Francois de Galaup Comte de La Perouse, head of the French expedition which followed Cook, sailed his vessels the *Boussole* and the *Astrolabe* north through the Alalakeiki channel between Kaho'olawe and Maui in May of 1786. His ships, however, kept to the far side of Molokini and he did not get a close look at the eastern shore of the island. He then "stood to the westward, passing at an equal distance from the north-west point of the island of Tahoorowa [Kaho'olawe], and the south-west point of the island of Ranai [Lana'i]." (La Perouse 1807:II:53) This tack brought him no closer to the island, and the famous French navigator has nothing to say concerning its appearance or condition.

1786-1788 - King George & Queen Charlotte

The British vessels *King George* and *Queen Charlotte*, under the command of Captains George Dixon and Nathaniel Portlock, both of whom had been on Cook's final voyage, visited the Hawaiian islands three times between 1786 and 1788. William Beresford who sailed with them as supernumerary and who wrote the narrative of their voyage described Kaho'olawe by saying; "Tahoaroa [Kaho'olawe] and Morokinne [Molokini] are fituated betwixt Mowee [Maui] and Ranai [Lana'i]; they are mere garden fpots, and I cannot fay whether they are inhabited". (Beresford 1789:262) What Beresford meant by "mere garden fpots" is uncertain. We do not know what parts, if any, of the island were seen by Portlock and Dixon.

1791 - Princess Royal

In 1791 the Spanish naval officer Manuel Quimper navigated his vessel the *Princess Royal* along much the same route as taken by La Perouse, sailing along the shores of east Maui and then cutting between Maui and Molokini before heading north towards Lahaina. Quimper's only comment on Kaho'olawe was that it, like Lana'i and Molokai, "have scarcely sufficient fruits to maintain their inhabitants". (Quimper 1937:7)

1790-1792 - Hope

Joseph Ingraham, captain of the American brigantine *Hope*, was involved in the fur trade between the Pacific Northwest and China. He stopped in the Hawaiian Islands twice between 1790 and 1792. At various times he sailed along both the east and south coasts of Kaho'olawe. On the first of its visits, the *Hope* skirted the east coast of Kaho'olawe, passing between it and Molokini on the 25th of May, 1791 during a passage from Hawai'i to Maui. Ingraham's log records that: "At eleven at night being under Mowee [Maui], we brought to under a double reefed mainsail till daylight when we found ourselves near the Island of Taharooa [Kahoolawe] and hauled our wind for the Island of Morokinnee [Molokini]. 25 MAY. When we drew near this island, the wind blew at times in all directions; at others it was calm. This occasioned the sea to run in cross directions and so high as

to oblige us to lash in our deadlights, a circumstance very uncommon in these low latitudes. Besides it raised whirlwinds, etc., and tossed the vessel about in the most disagreeable manner we had experienced before on the voyage, not even excepting the tide off Staten Land before Cape Horn. At two in the afternoon the sea breeze came in with such violence as to oblige us to hand our topsails. Shortly afterwards the wind fixed in the westward and forced us far within Morokinnee [Molokini] into Rappo'rappo [Kalepolepo] Bay, so that I expected we should be obliged to anchor to prevent our getting on shore." (Ingraham 1971:77-78) In this account, Ingraham gives no real description of Kaho'olawe herself. On its second visit, the *Hope*, sailing from Hawai'i to Oahu, edged the island's southern coast before rounding its west end on the 10th of October, 1791. "We shaped our course to run without Taharooa [Kahoolawe] and Ranai [Lanai]. 10 OCTOBER. Next morning we were off the west end of Taharooa [Kahoolawe]. Through the day we had light airs so that it was dark ere we came abreast of the west end of Ranai [Lanai]." (Ingraham 1971:166-167, a map of Ingraham's course through the islands is included facing page 82) Ingraham's eastern route paralleled almost exactly that taken by Quimper, but unlike the Spanish navigator, Ingraham provided us with a visual description of the island in the form of two views or coastal perspectives which show the topographic features of the island as seen from the sea. The first, a view of the east coast of Kaho'olawe, is labeled "Tahoorowa bearing S.S.W. 2 miles distance". It shows the coastline from Lae o Kaka to Lae o Kuikui, The second is entitled "Tahoorowa bearing S.S.E. distance 5 Leagues", and shows the north coast from Lae o Kuikui to Lae o Kealaikahiki. In both drawings it is easy to recognize known landmarks. (A photostat of this drawing can be found in the collection of the Hawaiian Historical Society [MS 919.69 In4])

1792-1793 - *Discovery & Chatham*

Captain George Vancouver, who had been with Cook on his two final voyages, visited Hawaii during the years 1792-94. In his voyages among the islands, Vancouver first sailed past Kaho'olawe on March 6th, 1792. His route led him, like Cook, around the western end of the island, although Vancouver probably got a better view of the southern cliffs than did Cook. The only incident of note from that passage is described in the log of the tender *Chatham* which accompanied Vancouver's ship *Discovery*. The log remarks that; "as we passed Tahoorowa [Kaho'olawe], we observed large fires made on the side of the Hills running in different directions that had the effect of a grand illumination, and was either intended as a compliment to us, or for the purpose of clearing away the ground for a new crop of the grass used by the Natives for covering their Houses with." (Chatham [Armed Tender] no date:123-4)

In March of 1793 Vancouver's ships again passed Kaho'olawe, this time along the island's eastern coast, between it and Molokini (Vancouver's chart of his voyage between the islands dates this to "March 30 1793"). This passage appears to have led Vancouver to remark on the impoverished condition of Kaho'olawe and its neighboring islands, resulting from the almost continuous warfare of the last few decades. "The war, and the vast supplies that the half famished trading vessels had recently drawn from some of these islands, had left a very scanty portion for the remaining inhabitants of Mowee, and the other islands under the authority of Titeeree [Kahekili] and Taio [Kaeo; Kaeokulani, Kahekili's brother and the ruling chief of Kaua'i, who shared control of Maui with Kahekili at this time]. This information was communicated to me by several respectable chiefs at Owhyhee [Hawai'i], and was now fully confirmed by Tomohomoho [Kamohomoho, a Maui chief], particularly as to Mowee [Maui] and Morotoi [Molokai]; he stated these as having been the principal feats of Tamaahmaah's [Kamehameha] wars, and that Rannai [Lana'i] and Tohowrowa [Kaho'olawe], which had formerly been considered as fruitful and populous islands, were nearly over-run with weeds, and exhausted of their inhabitants; nor had Owhyhee [Hawai'i] escaped the devastation consequent on her foreign and intestine disputes, which had been numerous and severe." (Vancouver 1798:II:180)

Vancouver further remarks that; "Such was the deplorable account he [Tomohomoho?] related of the distressed situation of Mowee [Maui], and the neighboring islands. This had hitherto so humbled and broken the spirit of the people, that little exertion had been made to restore these islands to their accustomed fertility by cultivation; and they [Kamehameha's army?] were at that time under the necessity of collecting provisions from Woahoo [Oahu] and Attowai [Kaua'i], for the maintenance of their numerous army on the eastern parts of the island." (Vancouver 1798:II:186)

1804 - Unknown

In the account of his voyage between China and the Northwest coast of America, undertaken in 1804, William Shaler lists all the major islands in the Hawaiian chain; "Owhyhee [Hawai'i], Mowee [Maui], Tahowroa [Kaho'olawe], Ranai [Lana'i], Morotoi [Moloka'i], Whahoo [Oahu], Atooi [Kaua'i], Neeheeheow [Ni'ihau], Oneehaw [Lehua], Morotinnee [Molokini], and Tahaura [Kaula]", which he says are "all inhabited except the two last." (Shaler 1935:85) We do not know whether he gained this information by personal observation, or from talking with the Hawaiians themselves.

1811 - Tonquin

In 1811, Gabriel Franchère, who had been hired as an apprentice clerk for the infant settlement of Astoria, took passage aboard the *Tonquin* (under Captain Thorn) bound for the Northwest coast of America. On its way, the *Tonquin*

visited the Hawaiian islands to take on supplies before proceeding north to Astoria. After stopping Kawaihae on Hawai'i, they proceeded on to Oahu. As Franchère wrote in his journal of the voyage; The wind rising on the 18th [of February, 1811], we soon passed the western extremity of Hawaii, and sailed by Mowhee [Maui] and Tahooraha [Kaho'olawe], two more islands of this group, and said to be, like the rest, thickly inhabited." (Franchère 1854:61). He does not indicate which course the Tonquin took in sailing up the chain, but it seems probable that they skirted the western end of Kaho'olawe. An alternate translation renders this passage; "The wind having finally risen on the 18th of February [1811], we passed the west end of the island [Hawai'i] and sailed close by Mowi [Maui] and Tahourahah [Kaho'olawe], two islands of this group which are also well populated." (Franchere 1969:61-2)

1816 - *Rurick*

Lieutenant Otto von Kotzebue, commander of the Russian vessel *Rurick*, which had been sent to Alaska to search for the elusive Northwest Passage, visited Hawaii twice in 1816 in order to replenish the ship's supplies. During one of these visits the *Rurick* appears to have sailed from the west coast of Hawai'i to Oahu along the southern edge of the island chain, skirting the south coast of Kaho'olawe. In his account of the voyage, von Kotzebue writes; "During the night [of the 25th of November, 1816] we fell into the trade-wind, and sailed so close by the island of Tahoorowa [Kaho'olawe], that we saw a number of fires along the shore." (Kotzebue 1821:I:318). Unlike the large grass fires seen by the Chatham, Kotzebue appears here to refer to cooking fires, a good indication that this stretch of the coast was inhabited, if only by visiting fishermen, at the time of his passage.

Kotzebue returned to the islands in 1824. This time, however, his route took him along the north shores of Maui and Molokai, and as a result he makes no mention of Kaho'olawe. (Kotzebue 1830:II:155)

1818 - *Kamchatka*

Another Russian ship, the sloop of war *Kamchatka*, under the command of Vasili Golovnin, passed through Hawai'i in October of 1818. The *Kamchatka* appears to have sailed from Kailua bay on the island of Hawai'i to Honolulu harbor on Oahu. Golovnin writes in his account of the voyage that; "I took a bearing on the western side of Morotoi [Moloka'i]; at nightfall we approached Mowee [Maui]; during the night we passed Tahoorowa [Kaho'olawe] and Renai [Lana'i], and at dawn on the 26th of October we were near the western end of Morotoi [Moloka'i]; from there we proceeded to Woahoo [Oahu]". (Golovnin 1979:185) It is unclear from Golovnin's account whether he sailed to the west or east of Kaho'olawe, but, judging from the fact that the *Kamchatka* passed the island at night, it seems most likely that Golovnin steered a course which skirted its western end. Later on in his

narrative, Golovnin states that; "The island of Tahoorowa [Kaho'olawe] is uninhabited because of its unproductive, rocky soil, although it is about 40 versts in circumference. Countless numbers of sea birds dwell on it." (Golovnin 1979:218)

1819 - *Uranie* & *Physicienne*

On the 15th and 16th of August, 1819 the ships *Uranie* and *Physicienne* under the command of Captain Louis Freycinet coasted the shores of Kaho'olawe. Their route appears to have taken them from Kawaihae on the leeward coast of Hawai'i, around the westernmost tip of Kaho'olawe (Lae o Kealaikahiki) and on to Lahaina, Maui. Freycinet's log notes that; "We passed rather close along the coast of Tahourowe; this island, not very elevated, and beaten on the southern shores (falaises) by the sea, is steep (escarpee) at that point, and is formed with horizontal layers of lava." (Freycinet no date:43). Jacques Arago, the artist accompanying the expedition, described the island in these words; "We coasted along Taouraé, a barren island, flat, and moderately elevated, on which was not the slightest appearance of vegetation. The soil is reddish, and furrowed at intervals. The island is desert and uninhabited; some breakers extend beyond its western point. On doubling this, we discovered the small rock of Morikini, from whose summit rises a lofty column of smoke, which would have induced us to suspect there was a volcano under it; the pilots on boards, assured us, however, that this was not the case." (Arago 1823:II:118) Arago's disparaging description of the island must be considered in the context of his other descriptions of other parts of the Hawaiian chain. He describes the west Maui mountains by saying; "The base of this mountain, which somewhat resembles our Canigou, is dry and barren, without the smallest trace of that verdure which crowns its summit". (Arago 1823:II:118) In his Arago goes into greater detail describing the island of Kaho'olawe. "Taouroe arose before the corvette, reddish on the sides, black at her base, copper at her summit; Taouroe, island of rock, embattled, notched, at the peak in pointed ridges, similar to a decrepit wall of lava chiselled by the centuries.

"Who, then, has touched this ground barren of any greenery, who then has tried to scale these formidable ramparts on which the waves thunder and crash with such violence? No one. And yet the long and perilous reefs surround Taouroe, as if the crags had to fear the conquest of man, as if they wanted to defend themselves against all greediness the wealth that is hidden perhaps in its sides. Taouroe will be eternally uninhabited, for life there is impossible." (Arago 1840:229-30) Arago's heavily melodramatic, and at times fanciful, description of Kaho'olawe reflects the view which he had sailing along the island's precipitous southern coast and around its dry western end, which even as late as the 1930s was covered

primarily in pili grass (as shown on a 1931 map by E.H. Bryan
in the Bishop Museum Archives-G4382-K3-1929-U5-Copy 1)

Appendix B

A Chronology of Kaho'olawe In The Historic Period (To 1900)

1778-1779

The war party of Kalaniopuu, king of Hawaii, after raiding Kaupo, Maui, stops at Kaho'olawe and "not finding much booty there, steered for Lahina..."(Fornander 1973:II:156)

1779

Captain Cook's ships sail along the south coast of Kaho'olawe.

1781-1782

David Kalakaua, writing in 1888, states that, when Kahekili's armies attack the fortress of Kauwiki at Hana, Maui, the Hawaiian chief Keeaumoku flees and takes refuge with his family on Kaho'olawe. (Kalakaua 1975:361) Samuel Kamakau, however, states that Keeaumoku had left Hana and returned to Hawai'i back in 1779, three years prior to the seige of Kauwiki. (Kamakau 1961:385)

1805

George Youngson, an English carpenter and one time resident of Hawaii, places the population of Kaho'olawe in 1805 at 160 individuals (interviewed by Louis de Freycinet on Guam in 1819). (Freycinet 1978:66)

1809

An unknown ship is wrecked on Kaho'olawe. (Kamakau 1961:207)

1813

John Jacob Astor's ship *Lark* wrecked on Kaho'olawe. (Irving 1836:II:235-239) A map of Kaho'olawe, drawn by J.F.G. Stokes shows Papakaiki bay labeled as "Lark's Bay".

1823

A "loose estimate" of the Kaho'olawe's population for this year was 50 inhabitants. This estimate was made by C.S. Stewart, a resident of the Hawaiian Islands at that time. (Stewart 1828:25-27)

1824

"On the 22nd of June [1824] she [Kaahumanu] in a very formal and public manner proclaimed a code of laws. At this time there were more people in Lahaina than I have ever known except for one occassion." This code of laws included prohibitions against murder, theft, "boxing or fighting among the people" and "work or play on the Sabbath". " The common penalty threatened to those who should break the laws, was banishment to the island of Tahoorawe, though in conversation she said, perhaps it will be well to tie the roguish men to a cocoanut tree & there whip them till they are sorry." (Missionary Letters I:716a-717a, Aug 13, 1824)

1826

First record of criminals, one female and one male, sent into exile on Kaho'olawe. Kaahumanu's laws were promulgated in

1824, but largely ignored. The criminals were given over into the keeping of "the governor of Kahurawe". (Missionary Herald I:106).

1827

Hoapiliwahine, a Maui chieftess recently converted to Christianity, visits Kaho'olawe and removes a large wooden image described as "god of the shark", which she gives to Rev. William Richards, missionary at Lahaina. (Missionary Letters II:754a, March 31, 1827)

1828

Missionary William Richards mentions having performed a marriage ceremony for one couple from Kaho'olawe. (Missionary Herald II:209).

1828

The report of the missionary station at Lahaina, Maui indicates that Kaho'olawe possesses one school with a total of 28 pupils (adults as well as children). (The Missionary Herald, II:209).

1830-1848

Kaho'olawe serves as a penal colony for male prisoners. (Franck 1937:158).

1831

Kaho'olawe's single school now has 32 pupils. (Missionary Herald II:251) Another report, however, lists 56 students. (Report, Lahaina Station 1832:4, on file at the Hawaii Mission Children's Society Library)

1831-1832

A missionary census estimates eighty inhabitants on Kaho'olawe. (Schmitt 1968:42:T.6). "The 1831-1832 and 1835-1836 data for Molokai, Lanai and Kahoolawe, unlike those for the larger islands, appeared only in rounded form, and presumably represented estimates rather than actual headcounts." No record of the 1831-32 Kaho'olawe census can be found. (Schmitt 1973:6)

1832-1836

Population said to have remained at 80 individuals. (Olmstead 1841:262)

1837

Missionary reports indicate that there are only twenty children on Kaho'olawe, all of whom are in school. (Report, Lahaina Station 1838:2)

1840

The schooner Keola is lost at sea. Four passengers (two women and two lads) survived by swimming to Kaho'olawe. (Jarves 1843:280-2).

1840

The minor chief Kinimaka is exiled to Kaho'olawe for five years for the crime of forgery. (Journal of M. Kekauluohi, held in the Hawaii State Archives, Lunalili, William Charles, Kekauluohi's Journal 1840-42:1-9)

1840

A penal colony exists at Kaulana bay on the north coast of Kaho'olawe where men are sent for "theft and unfaithfulness".

Here 80 men fished and tended gardens of yams and kupala (pigweed) under the supervision of Kinimaka, "governor of the exiles". (Rodman 1939:39-40)

1841

Two small boats from the Wilkes Expedition (the *Leopard* and the *Greyhound* under the command of Midshipman May and Lieutenant Budd, respectively) are cast ashore on the western end of Kaho'olawe. Lieutenant Budd walks to the penal settlement of Kaulana, where there were at the time 15 convicts under chief Kenemoneha. The settlement consists of 8 huts and an unfinished adobe church. One or two other houses inhabited by old women are said to be located on the north end of the island. (Wilkes 1844:260-2)

1841

A group of Kaho'olawe prisoners swim to Maui, appropriate food and canoes, then sail to Lanai to collect female prisoners and return with them to Kaho'olawe. (Rodman 1939:39-40)

1843

The prisoners on Kaho'olawe are, "taken back to their homes." (Rodman 1939:39-40) Thrums said they were "granted a pardon and were returned home to work upon the roads." (Thrums 1902:122) This was possibly done under a royal clemency declared by Kamehameha III, to commemorate the restoration of the Islands to native rule by Admiral Thomas. (Thrum 1902:122)

1847

Kaho'olawe is mentioned as being among the lands held by King Kamehameha III, in a letter from N. Namauu to G.P. Judd. This was just prior to the Great Mahele, and G. P. Judd had at that time been appointed by the King to identify and receive all royal lands. (this letter is held at the Hawaii State Archives in the Interior Department Land File:12/15/1847) Namauu's letter suggests that prior to the Mahele, Kaho'olawe was considered as crown lands.

1848

Anthony Jenkins is convicted of burglary and sentenced to five years banishment on the island of Kaho'olawe. (The Polynesian 1/8/1848:2: c.6) George Morgan was probably sent up at this time for similar crimes.

1848

A.D. Kahaulelio and seven companions are castaway on Kaho'olawe. The only details of the wreck are given in his article "He Mau Kuhikuhi No Ka Lawaia Ana", published in the June 27th, 1902 issue of the Hawaiian language newspaper Ka Nupepa Kuo Koa. "Your writer was there [Kanapou bay, Kaho'olawe] for a week without vegetable food, living only on water, fish, opihi and goat meat. That is how I discovered that that was the place of large opihis." "We got there as castaways in the year 1848 and drank the water of the spring of Puuiaiki's. If it were not for this spring we eight would have been corpses, six adults and two of us young boys, one thirteen and your writer who was then eleven." (from a

manuscript translation by Mary Kawena Pukui in the Archives of the Bishop Museum:100-103, June 27, 1902)

1848

The island of Kaho'olawe is not mentioned in the Mahele Book, except in a handwritten note which reads, "Kahoolawe no Aupuni G.P. Judd", and translates "Kahoolawe to the Government G.P. Judd".

1848

In the Act of June 7th, 1848, found in "A Supplement to the Statute Laws of His Majesty, Kamehameha III, 1848", Kaho'olawe is listed as being among the former crown lands given over to and "set apart as the lands of the Hawaiian Government". (Statute Laws, 1848:41, a copy of which is in the Hawaii State Archives)

1849

Z. Kaaui request permission to purchase the entire island of Kaho'olawe for \$400. His desire is to make the land self sufficient by farming produce. (Kaaui's letter is in the Hawaii State Archives, Interior Department Land File:3/5/1849). The Privy Council rejects his request. (Privy Council Records: 3A:241, in the Hawaii State Archives)

1850

The island of Kaho'olawe is not mentioned in the government census of 1850. (Report of the Minister of Public Instruction, 1850:202, a copy of which is in the Hawaii State Archives)

1850

Edward Perkins and five companions visited the island in search of a wrecked vessel, a California schooner which had capsized off Lahaina with every soul lost, and was said to be carrying "a large quantity of specie on board". The vessel was thought to have drifted ashore on Kaho'olawe. Perkin's party landed in a bay on the island's northeast coast (most probably Hakioawa) and explored the northern end of the island. Some of the party stumbled upon "two fishing huts, tenanted, as they said, by old folks;" though they gave no indication of where these were located. (Perkins 1854:158-168)

1851

The island is said to be uninhabited except for one or two convicts. (The Polynesian 8/30/1851:62:c.2)

1851-1855

At some point during these years explorer and naturalist Jules Remy visits Kaho'olawe and collects a number of plant specimens there. The majority of these specimens (thirteen in all[?]) are held at the Herbarium of the Paris Museum, while a few are in the collection of the botany department at the Bishop Museum. The labels on these specimens read "Herb Mus Paris, Iles Sandwich - Kahoolawi, Voyage de M. J. Remy 1851-1855 [the years Remy was in Hawaii]"

1852

Prisoner George Morgan was removed from the island after he fell seriously ill. (from a letter written by P. Nahaolelua,

Acting Governor of Maui, to Keoni Ana, Minister of Interior, held in the Hawaii State Archives, Interior Department Land File: 1/14/1852) Prior to this time his banishment was described as "pleasant - he was not bound under surveillance or labor, and had also some feminine companionship; he hunted wild hogs at will and cultivated a patch of land. Water again was a problem as it had to be brought from a considerable distance." (Thrum 1902:120)

1853

The island of Kaho'olawe is not mentioned in the 1853 census. (Coulter 1971:26).

1853

Law providing for the imprisonment of convicts on Kaho'olawe is repealed. (May have been repealed earlier). (Privy Council Records:7:177-179 in the Hawaii State Archives)

1854

Z. Kaauwai applies for a 50 year lease of the island at \$200 per year. His application was not approved. (Kaauwai's letter is on file in the Hawaii State Archives, Interior Department Land File: 8/18/1854)

1854

C.C. Harris asks to lease the island of Kaho'olawe. The Privy Council "politely declined" his petition. (Privy Council Records:8:291, in the Hawaii State Archives)

1856

Two Waikapu residents, George Shaw and Mark Preever request to purchase two 1,000 acre parcels on Kaho'olawe at \$0.25 per acre. They intend to raise sheep and goats, and to cultivate sweet potatoes. (letter on file in the Hawaii State Archives, Interior Department Land File: 4/18/1856) Their request appears to have been denied.

1857

O.B. Merrill submits an "application for a 25 year lease of the Island of Kaho'olawe". (Interior Department Letter Books:No.7A:45, in the Hawaii State Archives)

1857

Paul Nahaolelua (Governor of Maui) and Ioane Richardson are sent by Lot Kamehameha to Kaho'olawe to report on the condition of the island, to ascertain "whether it is suitable for raising cattle or sheep", and to determine a "fair rental" for the land. (Interior Department Letter Books:7A:51, in the Hawaii State Archives). Their report indicates that "there are some fishermen living on Kaho'olawe, maybe not over fifteen, if the men, women and children are combined." It also provides some place names and describes the existing vegetation, water sources and anchorages. (their report is on file in the Hawaii State Archives, Interior Department Land File: 12/7/1857).

1858

A twenty year lease on the island of Kaho'olawe is sold to R.C. Wyllie, Chancellor of the Kingdom, for a sum of \$505.00 per year. (The Polynesian 4/3/1858:381:c.3). Wyllie appears to have had as his partner in this enterprise Elisha H. Allen,

Minister of the Interior. (R.C. Wyllie Private Collection; 4/6/1885 & State Land Management Office-Land Records-Record of Leases:I, both of which are in the Hawaii State Archives)
1858

Pat Shaw, a Hawaiian speaking resident of Lahina, writes to Lot Kamehameha offering to live on Kaho'olawe and look after Lot's animals and other possessions there. (Shaw's letter is in the Hawaii State Archives Interior Department Misc. Matters: 4/28/1858)

1858

Ed M. Mayor writes to R.C. Wyllie (who then held the lease to the island) regarding "permission to establish a whaling station on the Island of Kahoolawe during the coming season...". He also mentions that Wyllie is considering sinking "artesian wells upon the Island should the trend of the land and soundings seem to justify you in this outlay..." (letter in the R.C. Wyllie Private Collection 5/8/1885 at the Hawaii State Archives)

1858

William F. Allen of Honolulu undertakes an inspection of the island of Kaho'olawe for Messrs Wyllie & Allen to ascertain its present condition, vegetation, inhabitants, etc., and to make recommendations as to its future use as a sheep ranch. He indicates, in his letter to the partners, that a sheltered anchorage is available at Ahupu. He also states that on the slopes of "the highest point of land on the island"[Pu'u o Moaulanui], "the Natives have some Sugar Cane growing; Mellons, potatoes and pumpkins grow well here." Allen goes on to mention the presence of two water wells which, from his description, appear to be located at Ahupu and Kanapou, and indicates the existence on the island of wild dogs, goats and hogs. Allen suggests that a house be built "on the top near the mound"[Pu'u o Moaulanui] and that "a cistern be sunk for water". In describing the native flora and fauna, he mentions the presence of Aacoco [Akoko] and "Widde Widde" [Wili wili] trees, prickly pear cactus, milk weed and grasses, as well as "Plovers, Pigeons, & Owls". "I found on the Island about fifty Natives men, women and children, the men engaged in fishing which is very good there most of the year, as there are several kind which frequent the sea about the Island. These natives do not live here all the year, but are here most of the time except during the rainy season, their food (Poi) they bring from Maui after disposing of their Fish in Lahaina. There are Houses along the South West or Lahina side of the Island at three different locations about five miles apart." [Probably at Kaulana, Ahupu and Honokoia]. Allen ends his letter by suggesting that there is ample pasturage on the island for 20,000 sheep. (R.C. Wyllie Private Collection 4/31/1858 at the Hawaii State Archives)

1859

An unknown number of sheep, possibly 2,000, are shipped from Kalepolepo to Kaho'olawe by Capt. White as contracted by E.H. Allen. (R.C. Wyllie Private Collection 4/29/1859 at the Hawaii State Archives). They appear to have been purchased

in Makawao (R.C. Wyllie Private Collection 6/2/1859 at the Hawaii State Archives), from a man named Merrill. Many of them were later found to be diseased.

1859

William Webster, the King's land agent, is contracted by Wyllie to go to Kaho'olawe to set the price of sheep per head and advise on the best means of exterminating wild dogs, the possibility of irrigation by artesian wells, shepherds, pens, etc. (R.C. Wyllie Private Collection 5/4/1859 at the Hawaii State Archives). Webster's report indicated that of the 2,075 sheep on the island, 3/4 of them were afflicted with "the scab". He implies that the sheep were infected before Wyllie's purchase of them. He feels the island, however, has good potential for grazing, particularly the four to five thousand acres grassland "on the summit of the island". About half this land, he says, is presently covered by six miles along the weather side from the southern end of the high cliffs southward." In "an old crater about three miles from the south end of the island [Lua Kealialalo], Webster found "a shallow pool, very muddy & red & I believe dries up in the autumn" [he visited the island in June]. (R.C. Wyllie Private Collection 6/2/1859 at the Hawaii State Archives)

1859

E.H. Allen writes to R.C. Wyllie that he has "employed Mr. Hillebrand, brother of the D., to go to Kahoolawe and take care of the sheep." (R.C. Wyllie Private Collection 5/16/1859 at the Hawaii State Archives)

1859

R.C. Wyllie writes to E.H. Allen seeking to be relieved of his interest in Kaho'olawe. (R.C. Wyllie Private Collection 7/7/1859 at the Hawaii State Archives)

1860s

Naturalist Lydgate visits Kaho'olawe at some time during these years and collects a specimen of oloa (*Nerandia kahoolawensis*). The location of this specimen is unknown.

1864

Elisha H. Allen, Minister of the Interior, and C.G. Hopkins lease "The whole Island of Kahoolawe" for fifty years at \$250 per year, Lease 115. (State Land Management Office-Land Records-Record of Leases:I, in the Hawaii State Archives)

1866

The census of 1866 revealed a total of 5 households and 18 individuals resident on Kaho'olawe on the night of December 7, 1866. There were 11 males and two females, with at least one female per household. 7 of the island's 18 inhabitants were born on Kaho'olawe; 2 males and 1 female born before 1826, 2 males born between 1826 and 1851, and 2 males born after 1851. 2 of the 18 inhabitants were Americans who listed themselves as shepherds. 16 of the 18 inhabitants were of Hawaiian descent, 2 of these were half-white & half-Hawaiian (apparently the offspring of one of the American shepherds and his Hawaiian wife). One married Hawaiian male

over 40 years of age, who was born on the island and apparently had a son who was born there also, stated that he was a landowner. (1866 Census, copies of which are on file in microfilm at the Hawaii State Archives)

1870

Kaho'olawe appears to have been included in the Government Survey of Maui County, conducted under Surveyor General W.D. Alexander. (Hobbs 1935:64)

1874

Charles Reed Bishop seeks "to purchase the land on the Island of Kahoolawe now under lease, for a long term (nearly fifty years) to His Honor E.H.Allen, at a yearly rental of \$250, and will pay... for the later \$2,500 upon receipt of Patents and of the Leases duly assigned." (Interior Department Land File: 3/12/1874 in the Hawaii State Archives)

1875

King Kalakaua visits the island of Kaho'olawe. His party, which includes the Governor of Maui, Samuel Parker and other "court companions", lands on the beach at Honokoa. Here they are entertained and served breakfast "by the warm and generous residents", who dwelt in an aged "house with its dark leaves of the forest". After breakfast, the King and his entourage mounted eight horses and rode inland to see the island. "When one turns and looks towards Molokini, there is one high hill, namely the hill of Ulapau." [probably Pu'u o Moaulaiki] "There is also one famous cape south of Kealaikahiki". The plants noted by the King's party include "Mamane, Akia, Nenee, Wiliwili, Maniania (Mahiki), Pilipili grass and pili grass used to thatch houses". The local livestock included 20,000 sheep and 10 horses, 2 dogs and a few hundred goats. The Island's inhabitants consisted of "6 native men, 2 white men, 2 full-Hawaiian women, 2 small children" living in "4 houses" [This may only include those living at and around Honokoa]. "This property [Honokoa?] together with the entire island are under the Hui o Alani (Chief Justice)." [possibly Elisha H. Allen who owned the lease to the island]. There are streams, springs and spring water, so that the family and the others are not inconvenienced - there are not more than 50 [inhabitants?], however, their food comes from another island. The care of all these falls under Mr. Lewis, a Frenchman who is chief of Kahoolawe; he is a pleasant and generous acquaintance." At 11:00 a.m. the royal party returned to the shore, and after many farewells, departed the island. (Ka Lahui Hawaii 12/30/1875:4:c.2, translation by Carol Silva-Silva 1983:61-62) In one of her letters, Queen Emma says that Kalakaua was ordered to visit Kaho'olawe "as a kala [to loosen, pardon] for Lunalilo's removal to his new tomb. (Korn 1976:288)

1880

Elisha H. Allen transfers title to his Kaho'olawe lease to Albert D. Courtney and William H. Cummins. (State Land Management Office - Record of Leases:I, in the Hawaii State Archives)

1881

The Hawaiian Gazette records that on taking possession of the Kaho'olawe lease, William H. Cummins found "some 2,000 goats and 1,000 sheep on the island, these he has removed, or is removing, and is now stocking the island with cattle". This is the first mention of cattle being brought to the island. This report also appears to be the first to suggest that erosion is taking place, for it states that, "To prevent the soil from the upper part of the island being blown away, Mr. Cummings has planted a large hedge of prickly-pears".
(Hawaiian Gazette 8/17/1881:3:2)

1884

The McKenney Directory of 1884 lists the "KAHOOLAWE STOCK RANCH, W.H. Cummings proprietor, W. H. Daniels manager, on the island of Kahoolawe, 12 miles from nearest point on Maui, p o Lahina and Wailuku, 32,000 acres, 20,000 grazing land, 9,000 goats, 2,000 sheep, 200 head cattle and 40 horses."
(McKenney Directory Co. 1884:337)

1887

The lease to Kaho'olawe, Lease #115, is transferred to the Kynnersley Brothers and R. von Tempsky. (Judd 1916:199).

1889

Kaho'olawe is mentioned as being "noted only for the peculiarity and fineness of certain brown-tinted grasses -- that are plaited by the natives into hats -- and the growth of the sweet potato." (Nicholson 1889:190)

1890

The ranch is now described as "Kahoolawe Stock Ranch (Clement and J R Seyd Kynnersley and Randal Von Tempsky) R Von Tempsky manager". (Lane 1890:678).

1892

A description of Kaho'olawe in the Pacific Coast Commercial Record mentions that, "water remains for some time after heavy rains" in "the craters of two volcanos now extinct" [possibly Lua Kealialuna and Lua Kealialalo]. It also indicates that, "A number of wells have been dug, but the water when found has always been brackish." (Pacific Coast Commercial Record 5/1/1892:1:c.1).

1898

John H. Hake (or Haake), Captain of the Schooner *Labrador* is arrested on Kaho'olawe on June 1st for the crime of unlawfully importing opium. He was sentenced to eighteen months hard labor and a fine of \$500.00. Two years later, in June, 1900, Hake is granted a pardon. (Foreign Office & Exchequer File: 5/29/1900 at the Hawaii State Archives)

1850 1860 1870 1880 1890 1900 1910 1920 1930 1940
.....

Caule Ranch
 (1881-1941)
 Hake Arrested
 (1898)
 Forest Reserve
 (1910-17).
 Bishop Museum Expd.
 (1913)
 Emory's Visit
 (1916)
 Kimokeo Killed
 (1919)
 U.S.A.A.C. Visit
 (1925)
 3rd Museum Expd.
 (1931)
 Steam's Visit
 (1939)

Appendix D

A Chronology Of Kaho'olawe's Population

<u>Year</u>	<u>Month</u>	<u>Households</u>	<u>Children</u>	<u>Women</u>	<u>Men</u>	<u>Total Population</u>
1805		-	-	-	-	160°
1823		-	-	-	-	50°
1828	April	-	-	13+	15+	28+*
1828	September	-	7+	13+	15+	28+*
1831	November	-	-	-	-	32+*
1831		-	-	-	-	56+*
1832		-	-	-	-	80°
1836		-	-	-	-	80°
1837		-	20	-	-	-
1840		-	-	-	-	80#
1841	March	-	-	-	-	17(?)^
1850		-Not Mentioned in Census-				
1853		-Not Mentioned in Census-				
1857	December	-	-	-	-	15
1858	May	-	-	-	-	50
1866		5	5¶	6	11[2]	18
1875	December	4*	2*	2*	8[2]	12(50?)

° Probably only a rough estimate.

* A count of the pupils attending the island's one school.

"Residents" dwelling at the Kaulana convict settlement.

^ 15 convicts living at Kaulana, plus a few old women.

¶ children less than 15 years of age.

[] Non-Hawaiians

* May only represent resident population at Honokoa. 50 inhabitants appears to be the estimated population of entire island.

1779

In his population estimates for the various Hawaiian islands, Lieutenant James King, an officer on Captain Cook's voyage, does not give a separate population estimate for Kaho'olawe. (Freycinet 1978:66)

1805

Louis Freycinet, who visited the Hawaiian islands in 1819, lists the population of Kaho'olawe in 1805 as 160 inhabitants. He basis this estimate (as well as population estimates from the other islands for that date) on a document which he says "was given me by an English carpenter, George Youngson, now living on Guam, but who had spent several years in the Sandwich Islands. However, the material, which he claims to have arranged very carefully, seems to offer only rather arbitrary approximations." (Freycinet 1978:66)

1823

A "loose estimate" of the Kaho'olawe's population for this year was 50 inhabitants. This estimate was made by C.S. Stewart, a resident of the Hawaiian Islands at that time. (Stewart 1828:25-27)

1825

In a letter to his superiors in Boston, Rev. William Richards, missionary at Lahaina, wrote: "Tahoorawe too, communicates with no other island but Maui though, there are few inhabitants there, and those mostly fishermen who are not permanent residents." (a copy of Richard's original letter is on file at the Hawaii Mission Children's Society Library: page 4; Letter #130; this section was printed in the Missionary Herald of June 1826:Vol.22:174-175)

1828

The report of the missionary station at Lahina, Maui indicates that Kaho'olawe possesses one school with a total of 28 pupils (probably primarily adults). (Missionary Herald II, p.209[?])

1831

Kaho'olawe's single school now has 32 pupils. (Missionary Herald II:251). Another report, however, lists 56 students. (Report, Lahina Station 1832, p.4).

1831-1832

A missionary census estimates eighty inhabitants on Kaho'olawe. (Schmitt, 1968, p.42, T.6). "The 1831-1832 and 1835-1836 data for Molokai, Lanai and Kahoolawe, unlike those for the larger islands, appeared only in rounded form, and presumably represented estimates rather than actual headcounts." (Schmitt 1973:6) No record of the 1831-32 Kaho'olawe census can be found.

1832-1836

Population said to have remained at 80 individuals. (Olmstead, 1841, p.262).

1837

Missionary reports indicate that there are only twenty children on Kaho'olawe, all of whom are in school. (Report, Lahina Station, 1838, p.2).

1840

A penal colony exists at Kaulana bay on the north coast of Kaho'olawe where men are sent for "theft and unfaithfulness". Here 80 men fished and tended gardens of yams and kupala (pigweed) under the supervision of Kinimaka, "governor of the exiles". (Rodman, 1939, p.39-40).

1841

Two small boats from the Wilkes Expedition (the Leopard and the Greyhound under the command of Midshipman May and Lieutenant Budd, respectively) are cast ashore on the western end of Kaho'olawe. Lieutenant Budd walks to the penal settlement of Kaulana, where there were at the time 15 convicts under chief Kenemoneha. The settlement consists of 8 huts and an unfinished adobe church. One or two other houses inhabited by old women are said to be located on the north end of the island. (Wilkes, 1844, pp.260-2).

1851

The island is said to be uninhabited except for one or two convicts. (The Polynesian, 8/30/1851, p.62, c.2).

1850

The island of Kaho'olawe is not mentioned in the government census of 1850. (Report of the Minister of Public Instruction, 1850, p.202).

1853

The island of Kaho'olawe is not mentioned in the 1853 census. (Coulter, 1971, p.26).

1857

P. Nahaolelua (Governor of Maui) and Ioane Richardson are sent by Lot Kamehameha to Kaho'olawe to report on the condition of the island, to ascertain "whether it is suitable for raising cattle or sheep", and to determine a "fair rental" for the land. (Int. Dept. Letter Bks.: 7A: p.51). Their report indicates that "there are some fishermen living on Kahoolawe, maybe not over fifteen, if the men, women and children are combined." (Int. Dept. Land File: 12/7/1857).

1858

William F. Allen of Honolulu undertakes an inspection of the island of Kaho'olawe for Messrs Wyllie & Allen to ascertain its present condition, vegetation, inhabitants, etc., and to make recommendations as to its future use as a sheep ranch. He indicates, in his letter to the partners, that "I found on the Island about fifty Natives men, women and children, the men engaged in fishing which is very good there most of the year, as there are several kind which frequent the sea about the Island. These natives do not live here all the year, but are here most of the time except during the rainy season, their food (Poi) they bring from Maui after disposing of their Fish in Lahaina. There are Houses along the South West or Lahina side of the Island at three different locations about five miles apart." [Probably at Kaulana, Ahupu and Honokoia]. (R.C.Wyllie Private Col.; 4/31/1858).

1866

The census of 1866 revealed a total of 5 households and 18 individuals resident on Kaho'olawe on the night of December 7, 1866. There were 11 males and 7 females, with at least one female per household. 7 of the island's 18 inhabitants were born on Kaho'olawe; 2 males and 1 female born before 1826, 2 males born between 1826 and 1851, and 2 males born after 1851. 2 of the 18 inhabitants were Americans who listed themselves as shepherds. Four of the adult male Hawaiians (all head of households) are noted as being "Hanalima" (manual laborers). The Hawaiians and Americans probably worked for E.H. Allen who had a sheep ranch on Kaho'olawe at that time. 16 of the 18 inhabitants were of Hawaiian descent, 2 of these were half-white & half-Hawaiian (apparently the offspring of one of the American shepherds and his Hawaiian wife). One married Hawaiian male over 40 years of age, who was born on the island and apparently had a son who was born there also, stated that he was a landowner. (1866 Census).

1875

King David Kalakaua visits the island of Kaho'olawe. His party, which includes the Governor of Maui, Samuel Parker and other "court companions", lands on the beach at Honokoia.

Here they are entertained and served breakfast "by the warm and generous residents", who dwelt in an aged "house with its dark leaves of the forest". The Island's inhabitants consisted of "6 native men, 2 white men, 2 full-Hawaiian women, 2 small children" living in "4 houses" [This may only include those living at and around Honokoa]. "This property [Honokoa?] together with the entire island are under the Hui o Alani (Chief Justice)." [Possibly Elisha H. Allen]. There are streams, springs and spring water, so that the family and the others are not inconvenienced - there are not more than 50 [inhabitants?], however, their food comes from another island. The care of all these falls under Mr. Lewis, a Frenchman who is chief of Kahoolawe; he is a pleasant and generous acquaintance." (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).

1901

In J.N. Cobb's "Commercial Fisheries of the Hawaiian Islands", published as part of the U.S. Fish Commission Report for 1901, we find Kaho'olawe described as; "a small island 6 miles west of Maui. The raising of sheep is the only business of the island, 10 persons being employed." (Cobb 1902:?)

Appendix E

A List Of Individuals Associated With Kaho'olawe

The following is a descriptive list of those individuals known to have been associated with the island of Kaho'olawe. The list includes both gods and men, residents and visitors, Hawaiians and *haole*. Its earliest names date back far into the mythic past, while its most recent belong to individuals who worked and lived on the island in 1940.

December 8th, 1941, the day the U.S. military assumed control of Kaho'olawe under martial law, has been chosen as the cut off date for this list. The names of those individuals who have been involved with the island in the fifty years since the take over have not been included.

'Ai'ai: Son of Ku'ula and a god of fishermen. He is said to have "visited Kahoolawe and established a ku-ula [fishing shrine] at Hakioawa". (Thrum, 1907, p.238).

Aina, Jack ["Jack" Aina Kailipalauli (Purple Skin)]: Foreman at the Kahoolawe Ranch from 1917 to 1922(?). Aina appears to have been on the island, working for Eben Low during at least the later part of the Forest Reserve period. (reference to this can be found in a letter from C. Judd to Eben Low dated June 20, 1917 in the files of the Department of Land and Natural Resources, Division of Forestry and Wildlife) His brother, Lewai, worked for Louis von Tempski at the Haleakala Ranch. (Inez Ashdown's personal photo collection, copy at the State Historic Preservation Office, p.12).

Aheakalani: 22nd name on the list of "Na Moi o Kahoolawe". A male.

Akina, Alexander B.: Alexander Akina was the third and youngest son of Benedictus Auhana Akina who worked for the Kaho'olawe ranch between (at least) 1899 and 1905. His mother was Hannah Pae, "a full-blooded Hawaiian". Alexander was born on Kaho'olawe April 27, 1904. "The family left Kahoolawe when Alexander was a year old because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) After leaving the island the family appears to have moved to Kihei, Maui. In 1955 Alexander Akina was described in an article in The Honolulu Advertiser as "a big time fisherman who is well known in Maui. He owns about 20 acres of land at Kamaole Beach Lots at Kihei." (The Honolulu Advertiser 8/4/1955:A4:c.2) His wife at that time was Violet Akina.

Akina, Anthony: Anthony Akina was the second son of Benedictus Auhana Akina who worked for the Kaho'olawe ranch between (at least) 1899 and 1905. His mother was Hannah Pae, "a full-blooded Hawaiian". Like his brothers John and Alexander, Anthony was born on Kaho'olawe. His family left the island around 1905, "because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) After leaving

Kaho'olawe the family appears to have settled in Kihei, Maui. Anthony died some time before 1955.

Akina. Benedictus Auhana: Resident ranch manager on Kaho'olawe during the years 1901-1902 (possibly more), when B.F. Dillingham Company Ltd. held the lease. (W.F. Dillingham Letters from Kaho'olawe: 1901-1902). "Auhana" is mentioned regularly in the ranch ledgers from July 1899 to July 1902. (Kahoolawe Ranch Ledger 1899-1901) An article in The Honolulu Advertiser for August 4th, 1955 states that "Benedictus Auhana Akina, was half Hawaiian and half Chinese; he was a foreman on a sheep ranch owned by Eben Lowe [sic] on Kaho'olawe." (The Honolulu Advertiser 8/4/1955:A4:c.2) The article also states that Akina was married to Hannah Pae, "a full-blooded Hawaiian" and had three children; John, Anthony and Alexander B. Akina, all of whom were born on Kaho'olawe. "The family left Kahoolawe when Alexander was a year old because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) That would have been in 1904, for Alexander was born on April 27, 1904. It would appear from all of this that Benedictus Auhana Akina worked on Kaho'olawe for the ranch from 1899 (and possibly before) to 1905. After leaving the island the family appears to have moved to Kihei, Maui.

Akina. John: John Akina was the eldest son of Benedictus Auhana Akina who worked for the Kaho'olawe ranch between (at least) 1899 and 1905. His mother was Hannah Pae, "a full-blooded Hawaiian". Like his brothers Anthony and Alexander, John was born on Kaho'olawe. His family left the island around 1905, "because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) After leaving Kaho'olawe the family appears to have settled in Kihei, Maui.

Allen. Elisha H.: Partner, with R.C. Wyllie, in the leasing of Kaho'olawe during the late 1850s as a sheep ranch. (R.C. Wyllie Private Col.; 4/6/1858). In 1864, Allen was Minister of the Interior (State Land Management Office-Land Records-Record of Leases:I), and in 1870 the Chief Justice of the Supreme Court. (Vincent, 1876, p.95). In 1864, Allen and C.G. Hopkins leased "The whole Island of Kahoolawe" for fifty years at \$250 per year. (State Land Management Office-Land Records-Record of Leases:1). In 1880 he transferred title to that lease to Albert D. Courtney and William H. Cummins. (State Land Management Office-Record of Leases:1).

Allen. William F.: In 1858, William F. Allen of Honolulu undertook an inspection of the island of Kaho'olawe for Messrs Wyllie & Allen to ascertain the island's condition, vegetation, inhabitants, etc., and to make recommendations as to its future use as a sheep ranch. (Letter of May 31st, 1858 in the R.C. Wyllie Private Collection at the Hawaii State Archives)

Anoikapuakalani: 19th name on the list of "Na Moi o Kahoolawe". A male.

Avaloa: A Kaho'olawe man living at Makena, Maui, whom Stokes tried to interview. On page 5 of his second journal, dated 1913, he writes, "Arrived at Makena at 12 and enquired

for Kamaaina of Kahoolawe. Was told that Awaloa, the only Kahoolawe man had died two weeks before. We interviewed Ms. Awaloa who knew nothing." (Stokes, Book II:5)

Baldwin, Harry: In 1922 Baldwin became a co-leasee with Angus MacPhee and founded Kahoolawe Ranch Company.

Coke, James B.: Vice President of the Kaho'olawe Honey Company from 1919 to 1928, Coke was also Chief Justice of the Territorial Supreme Court.

Conratt, Christian C.: Purchased lease of Kaho'olawe from B.F. Dillingham Co. in 1903 with the intention of raising sheep on the island and commercially fishing its offshore waters. (Maui News, 1/16/1904, p.3, c.3). He sold the lease in 1906 to Eben P. Low. (Judd, 1916, p.119).

Cook, E.: In 1866, E. Cook was a young girl living on Kaho'olawe with her family. Her father (I. Cook) was an American working as a shepherd for E.H. Allen. Her mother was a Hawaiian woman, probably not a native of Kaho'olawe. She had one brother, I.E. Cook. E. Cook was less than 15 years old when the census was taken in 1866. (Census schedules in AH file, "Lahaina 1866").

Cook, I.: An American resident on Kaho'olawe in 1866. In the census of that year he is listed as being a married male over 40 years of age with a Hawaiian wife and two children, a boy and a girl. Cook apparently worked as a shepherd for E.H. Allen who then owned the lease of the island. (Census schedules in AH file, "Lahaina 1866").

Cook, I.E.: Born after 1851, I.E. Cook was a young boy living on Kaho'olawe with his family during the census of 1866. His father, I. Cook, worked as a shepherd for E.H. Allen who then controlled the lease of the island. I.E. Cook's mother was Hawaiian, though probably not a native of the island. He had one sister. (Census schedules in AH file, "Lahaina 1866").

Cook, Mrs.: A Hawaiian woman, the wife of I. Cook, who was recorded as living on Kaho'olawe during the census of 1866. Mrs. Cook, a woman of between 15 and 40 years of age, is listed as having two children, a boy and a girl, both under 15. Her place of birth is not recorded. (Census schedules in AH file, "Lahaina 1866").

Cooley, A.E.: Cooley served as Auditor of the Kaho'olawe Honey Company from 1919 to 1928. He was also a dispatcher for the Oahu Railway and Land Company.

Courtney, Albert D.: Took over the lease of Kaho'olawe from Elisha H. Allen in 1880 with his partner William H. Cummins. (State Land Management Office-Record of Leases:I).

Crane, James C.: In 1917 Crane was given the task of removing the goats from Kaho'olawe by the Board of Forestry. At that time it was estimated that between 800 and 1,000 goats remained on the island. By April of 1918 he had only managed to remove 151 animals. (Maui News, 4/12/1918, p.3, c.4).

Cummins, William H.: A resident of Wailuku, Maui who took over the lease of Kaho'olawe from Elisha H. Allen in 1880

with his partner Albert D. Courtney. (State Land Management Office-Record of Leases:I). In 1884 he is mentioned as proprietor of the "KAHOOLAWE STOCK RANCH. (McKenney Directory Co. 1884: 337).

Daniels, W.H.: In 1884, Daniels is noted as being the manager of the "KAHOOLAWE STOCK RANCH. (McKenney Directory Co. 1884: 337).

Deverill, Alfred: Listed in the 1894-5 City Directory as "rancher, Kahoolawe". (Husted 1894-5, p.371).

Emerson, Joseph Swift: Born July 13th, 1843 at Lahainaluna, Maui, Emerson was the son of missionary John Emerson. Joseph, who spoke fluent Hawaiian, worked as a surveyor in the Government Survey Department from 1877 to 1903. He died in Honolulu in 1930. Joseph Emerson, like his brother Nathaniel Emerson, was a collector of Hawaiian lore and artifacts. In his field notebooks, J.F.G. Stokes speaks of a map of Kaho'olawe apparently drawn by Emerson. "Leaving smugglers bay, we went to the S. point, & then struck inland, trying to locate the Kahuahale of Kamohoalii, noted by Joe Emerson on map." (Stokes notebooks, Book I:) The only map existing in 1913 which contained this place name was Doc. 1126, one of two undated, unnamed sketch maps of Kaho'olawe in the Hawaii State Survey Office. It seems possible that Emerson sketched these two maps from information provided by a local informant.

Frear, Walter F.: Frear was Governor of the Territory of Hawaii from _ to _. On August 25th, 1910 he declared Kaho'olawe a Territorial Forest Reserve.

Gay, Thomas William: Evidently acted as the on island manager for Randall Von Tempsky's cattle ranch on Kaho'olawe in 1889. (Postmaster General-Incoming Correspondence: 11/15/1889).

Hake (or Haake), John H.: Captain of the Schooner "Labrador", was arrested on Kaho'olawe, June 1st 1898, for the crime of unlawfully importing opium. He was sentenced to eighteen months hard labor and a fine of \$500.00. Two years later, in June, 1900, Hake was granted a pardon. (F.O. & Ex. File: 5/29/1900).

Harris, C.C.: In 1854 Harris requests permission to lease the island of Kaho'olawe. The Privy Council "politely declined" his petition. (Privy Council Records: 8: p.291).

Hau: A Hawaiian resident of Kaho'olawe listed in the census of 1866. Hau was a married man over 40 years of age who was born on the island (some time before 1826) and who worked as a "Hanalima" (manual laborer), probably for E.H. Allen's sheep ranch. His (apparent) son, Hau opio (Hau junior), was also born on the island and was less than 15 at the time of the census. His wife may have been Luaehu. In the census Hau indicated that he owned kuleana land. (Census schedules in AH file, "Lahaina 1866").

Hau opio (Hau junior): A native of Kaho'olawe, who was born on the island some time after 1851. Hau opio is listed in the 1866 census as being a single male under 15 years of age.

His father was Hau and his mother was probably Luaehu, a woman from Hawai'i. (Census schedules in AH file, "Lahaina 1866").

Hillebrand: "Brother of D." who in 1859 was hired by E.H. Allen "to go to Kahoolawe and take care of the sheep". (R.C. Wyllie Private Col.: 5/16/1859). He appears to have accompanied William Webster on his inspection of the island. (R.C. Wyllie Private Col.: 5/15/1859).

Ho: A native of Kaho'olawe who was listed as living on the island during the 1866 census. Ho was a married man of greater than 40 years of age, who was born on Kaho'olawe (some time before 1826). He worked at the time as a "Hanalima" (manual laborer), probably for E.H. Allen's sheep ranch. It is probable that he was married to Makaikolani, a Hawaiian woman from Olowalu. (Census schedules in AH file, "Lahaina 1866").

Hoakakalani: 23rd name on the list of "Na Moi o Kahoolawe". A male.

Hoapili: The son of big island chief Kameeiamoku, Hoapili was, during the reign of Liholiho (Kamehameha II) appointed as governor of Maui. Hoapili took over that office in 1826, upon the death of the former governess, Wahinepio. He held it until his own death in 1840. Reverend William Richards of the Lahaina Mission Station refers to him as; "the former husband of Keopuoloui and the highest male chief now living." (Missionary Letters, Vol.3, p.715; Letter #138). Hoapili is said to have secreted the bones of Kamehameha I in their final resting place. (Kuykendall, 1938. p.63).

Hoapili wahine: Also known as Kaheiheimalie or Kaniu, Hoapili wahine was a high chiefess and sister of Ka'ahumanu. She was originally married to Kamehameha I, but after his death married Hoapili. Hoapili wahine made two trips to Kaho'olawe, the first in August, 1827, and the second, with Princess Nahianaena in July, 1831. On the first trip she removed from the island a wooden image of "The Tahoorawe god or god of the shark", and its accompanying awa cup. These she gave to Rev. William Richards of Lahaina. (Missionary Letters, Vol.3, p.728; Letter #144).

Honohina: A resident of Kaho'olawe in 1866, Honohina was listed in the census of that year as being a single male, over 40, who had been born originally on the island of Hawai'i. He is not listed as having an occupation. Honohina lived in the household of Hau, and may have been his wife, Luaehu's, brother or father. (Census schedules in AH file, "Lahaina 1866").

Hopkins, C.G.: In 1864, Hopkins and E.H. Allen leased "The whole Island of Kahoolawe" for fifty years at \$250 per year. (State Land Management Office-Land Records-Record of Leases:I).

Hosmer, Ralph: Hosmer served as the Superintendent of Forestry for the Territorial Board of Agriculture and Forestry in the early 1900s. He was the principle architect of the establishment of Kaho'olawe as a Forest Reserve.

Jenkins, Anthony: Convicted of burglary and sentenced to five years banishment on Kaho'olawe. (The Polynesian, 1/8/1848, p.2,c.6).

Kaahumanu: Daughter of Keeaumoku and future wife of Kamehameha I. She is said to have joined her father in exile on Kaho'olawe in late 1781. (Kalakaua,)

Kaaihue, Kalua: An eighteen year old Hawaiian boy who was marooned on Kaho'olawe for three months in 1910. The boy, a shepherd working for Eben Low, was "forgotten" on the island by the ranch foreman, Maikai. After waiting for months at the ranch, he moved to "Hakiawa" to flag down passing ships. He was rescued by the fishing boat "Maui Maru". (The Sunday Advertiser, 8/28/1910, p.1, c.4).

Kaauwai, Z.: In 1849 he attempted to purchase the entire island of Kaho'olawe in fee simple from the government for \$400. His desire was to be self sufficient on the land by farming produce. His request was denied. Attempted to lease island in 1854. Request again denied. In the Mahele Book he claims lands in Lahina and Wailuku on Maui.

Kahaulelio, A.D.: Born c.1837, most probably in Lahaina on the island of Maui, Kahaulelio fished the waters around Kaho'olawe during the latter half of the 19th century. He included much information on Kaho'olawe in his "He Mau Kuhikuhi No Ka Lawaia Ana" (Fishing Lore), published in the Hawaiian language newspaper "Nupepa Kuo Koa" from February 28th 1902 to July 4th 1902. A typescript of the original text, as well as a translation into English by Mary Pukui, are preserved in the Hawaiian Ethnographic Notes Collection at the archives of the Bernice P. Bishop Museum. His grandparents, as he tells us, "left Keoneoio, Honuaula, Maui, their birthplace five years after the Word of God had come to Hawaii and they made their home on this land of Lahaina, on the ahupuaa of Makila. It was because they were fishermen, and they traded and peddled fish for price; they gave fish in exchange for taro or pa'i-ai [hard poi] from the people of Lahaina." (Ms. p.150; April 14, 1902). Kahaulelio himself was a fisherman, as well as being tax collector for Maui for a time. "I have fished for sixteen years with my father and grandfather until all passed out of this life and for twenty-five years I have fished by myself. Now [1902] I have retired from the deep sea and inshore fishing taught me by my father." (Ms. p.1; February 28, 1902). "The sea all around Kaho'olawe has been fished in by your writer with his parents and grandparents." (Ms. p.32; April 18, 1902).

Kahihi: A Hawaiian woman born on Kaho'olawe (some time before 1826), and living there during the 1866 census. At the time of the census, Kahihi was over 40 and unmarried. She lived in the household of Ho, and may have been his sister or mother. She is not listed as having an occupation (Census schedules in AH file, "Lahaina 1866").

Kalaeiwa: A Hawaiian ranch hand who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1901 and 1902. He is mentioned in the ranch ledgers as being payed on April 16th

1901, July 1901 and October 1901. (Kahoolawe Ranch Ledger 1899-1901)

Kalaepuni: A legendary kupua (demigod) killed at Keanapou on Kaho'olawe. (Fornander, 1916-19, V, p.198-205).

Kalaikini (or Kalaekini): A legendary kupua (demigod). Kalaikini is also known by the names Kalaihina and Kalekini, and is said to be the younger brother of Kalaepuni. Legends often speak of him stopping up blowholes. (see Beckwith, 1970, pp.421-423 for reference to legends). On Kaho'olawe his name is associated with two puhi (blowholes) flanking Kanapou bay, which are labeled "Puhi Kalaikini tried to stop" and Puhi stopped by Kalaekini". (Doc. 1126. in the State Survey Office).

Kalakaua, David: King of Hawaii who, in 1875, made a brief, one morning, excursion to Kaho'olawe. (Ka Lahui Hawaii, 12/30/1875, p.4, c.2). In one of her letters, Queen Emma says that "Kahunas ordered him to do so, as a kala [to loosen, pardon] for Lunalilo's removal to his new tomb." (Korn, 1976, p.288).

Kalamahiai: A Hawaiian woman who was born on Kaho'olawe, but was living at Olowalu, Maui in 1866. The census of that year records that she was over 40 years of age and married. (the 1866 census forms are on file in the Hawaii State Archives)

Kaluawabinenui (Kaluahinenui): A Hawaiian woman who in 1840 was cast adrift by the wreck of the schooner "Keola". She swam for thirty hours before reaching the shores of Kaho'olawe. It was another three days before she was discovered and rescued. Her husband, Mauae, died before reaching the island. (Jarvis, 1844, p.280-2).

Kama: 4th name on the list of "Na Moi o Kahoolawe". A male.

Kamakaiholoae: 5th name on the list of "Na Moi o Kahoolawe". A male.

Kamakini (John Kapena): May have accompanied King Kalakaua on his 1875 visit to Kaho'olawe. (Korn, 1976, p.288)

Kamaole: 14th name on the list of "Na Moi o Kahoolawe". A female.

Kamohali'i: This is probably Kamohoali'i, a shark god and the brother of the volcano goddess Pele. Two place names on Kaho'olawe are associated with the shark god; Kalua o Kamohoali'i (The Cave of Kamohoali'i) at the northern end of Kanapou bay on the east coast, and Kahuahale o Kamohali'i (The House Platform of Kamohali'i) on a hill just west of Pu'u Moiwī. In the legends of Laukaieie (Westervelt, 1973, pp.44-46) and Kaehuiki (Thrum, 1923, pp. 293-301), Kamohoali'i is spoken of as having his home on Kaho'olawe.

Kamohio: In a chant heard from his Kupuna Kealoha Kuike [?], Harry Kunihi Mitchell speaks of "the Priest Kahuna Kamohio" who is associated with a fresh water spring "on the east end of Kamohi'o Bay on Kaho'olawe." (Appendix to Keene, 1983, pp. 64-5).

Kamaka: A Hawaiian woman, born in Wailuku, and living on Kaho'olawe during the 1866 census. Kamaka was between 15 and

40 years of age at the time of the census. She was married at the time, probably to Mamaawa, and is listed in the census as "Malama ohana" (taking care of the household). (Census schedules in AH file, "Lahaina 1866").

Kanaloa: Hawaiian god of the sea, and one of the four major Hawaiian gods. One of the ancient names for the island of Kaho'olawe was Kanaloa. There is also a Kanaloa (or Kaneloa) Gulch along the island's western shore

Kanuha: A "petty chief" sentenced to exile on Kaho'olawe, but pardoned before being sent to the island. (Kamakau, 1961, p.356-7).

Kaobiki: A Hawaiian woman who was born on Kaho'olawe, but was living at Makila, Maui in 1866. The census of that year records that she was over 40 years of age and married to a man from Honua'ula, Maui. (the 1866 census forms are on file in the Hawaii State Archives)

Kapunohu: Chief who landed on Kaho'olawe.

Kauauamahu: 11th name on the list of "Na Moi o Kahoolawe". A male.

Kauwekane, J.: On October 18, 1917, C.S. Judd, then Superintendent of the Division of Forestry, wrote a letter to J. Kauwekane [mistakenly spelled Kauwakane in Judd's letter] who was then residing at Kanahena, Makena, P.O., Maui. Judd writes; "I understand that your father was a kamaaina on Kahoolawe and that you are very well acquainted with that island. Now, I am very anxious to find out a lot of the names for the different places on Kahoolawe and hope that you will be able to help me out. For this purpose I am enclosing a large map of the island and would be very much obliged to you if you kindly place on it in pencil at the proper point the name of any or all of the points, bays, hills and valleys that you know and return the map to me in the enclosed stamped envelope." (Hawaii State Archives, Board of Agriculture and Forestry, Division of Forestry, Box 34, Charles S. Judd, Kahoolawe, 1913-1920). Kauwekane's letter in reply (Board of Agriculture and Forestry, Division of Forestry, Box 34, Charles S. Judd, Kahoolawe, 1913-1920) and the map on which he wrote those place names known to him (Map, G4382.K3, 1917, H38, .F6) are also held in the State Archives. Kauwekane also appears to have been an informant for archaeologist J.F.G. Stokes, for his name appears along with those of other known informants on an undated map drawn, possibly some time around 1913, by Stokes and presently held in the Archives of the Bishop Museum [HPF 2:8:11]. Kauwekane appears to have been living on Maui at the time, for on the map Stokes gives his address as "Kanahena, Makena PO.". It is possible that Mrs. Lepeka Kauwekane, born 20th of April, 1863, died 8th of November, 1933, and buried at the Keawala'i Congregational Church cemetery in Makena, may have been J. Kauwekane's wife or sister.

Keauhouokalani: 9th name on the list of "Na Moi o Kahoolawe". A female.

Keeaumoku: An 18th century Hawaiian chief, father of Kaahumanu, who is said by David Kalakaua to have taken refuge on Kaho'olawe during Kahekili's 1781-2 attack on the fortress of Kauwiki at Hana, Maui. In his "The Legends and Myths of Hawaii", first published in 1888, Kalakaua states that; "A few months before the death of Kalaniopuu [January, 1782], Kahekili, learning of the failing health of his old opponent, prepared for the recovery of the district of Hana, which had been for nearly forty years under Hawaiian rule. Marching into the district and investing the fortress of Kauwiki, he finally reduced it by cutting off its watersupply, and Eastern Maui again became a part of the dominions of the moi of Maui. This occurred about the time of the death of Kalaniopuu.

But what became of Keeamoku and his family, whose home for years had been among the hills of Hana? Learning of the meditated invasion of the district, and unwilling to trust himself to the mercy of Kahekili, Keeaumoku fled with his family [Kaahumanu was now a girl of fifteen] to the almost barren island of Kahoolawe, where he lived in seclusion until after the fall of Kauwiki and death of Kalaniopuu [probably a few months], when he boldly returned to Hawaii..." (Kalakaua, 1975, p.361).

Kalakaua's account is the only mention we have of Keeaumoku's self imposed exile on Kaho'olawe. We do not, as of yet, know the source of Kalakaua's information. Other sketches of Keeaumoku's life cast some doubt upon the event. Samuel Kamakau, in his chronicle of the period, remarks that; "At the time when Ka-lani-'opu'u returned to Hawaii to see Captain Cook, called Lono [1779], all the chiefs returned with him to Hawaii, and Ke'e-au-moku also left Hana, went to live at Honokua in Kapalilua, and later moved westward with his wife and children to Honomalino and Miloli'i." (Kamakau, 1961:385)

Fornander, in his description of the seige of Kauwiki, makes no mention of Keeaumoku. He does, however, state that; "The surrender of Kauwiki may be dated as of the early part of 1782, about the time of Kalaniopuu's death." (Fornander 1969:II:217).

Kekoolani: A Hawaiian woman, born on Maui and living on Kaho'olawe during the 1866 census. She was between 15 and 40 years of age at that time, unmarried, and is noted as being a "Hana lima" (manual laborer). She lived in the home of Mr. Marston, an American shepherd probably working for E.H. Allen who ran a sheep ranch on the island at that time. (Census schedules in AH file, "Lahaina 1866").

Keliumuhumu: 3rd name on the list of "Na Moi o Kahoolawe". A male.

Keliikipi: A young Hawaiian boy, born in Honuaula, Maui, who was living on Kaho'olawe during the 1866 census. Keliikipi was younger than 15 at the time of the census. He was single and lived in the household of Mamaawa, who may have been his father. (Census schedules in AH file, "Lahaina

1866"). Keliikipi's name has been found carved into a boulder on the beach of the valley immediately east of Ahupu bay. This might suggest that he was living at or near the Ahupu settlement around the time of the 1866 census.

Kenemoneha (almost certainly Kinimaka): A chief condemned to spent five years in exile on Kaho'olawe for the crime of forgery. He lived with 15 other convicts at Kaulana bay, a settlement of eight huts and an unfinished adobe church. The chief, had three large canoes at his disposal. His wife resided at Lahaina, was a great favorite of the king, (Wilkes, 1844, pp260-2).

Keouihana: A ranch hand who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1899 and 1900. Kimeona is mentioned in the ranch ledgers as being payed on July 1899, April 1900 and September 1900. (Kahoolawe Ranch Ledger 1899-1901)

Kepookalani: 17th name on the list of "Na Moi o Kahoolawe". A male.

Kepookela: 16th name on the list of "Na Moi o Kahoolawe". A male.

Kia: Invited by Kamakini (John Kapena) to accompany King Kalakaua on his 1875 visit to Kaho'olawe. (Korn, 1976, p.288) He may have been Paul Nahaolelua, Governor of Maui.

Kihapu: 12th name on the list of "Na Moi o Kahoolawe". A male.

Kihapuniu: 10th name on the list of "Na Moi o Kahoolawe". A male.

Kihawahine: a Mo'o goddess who, in her fight with Pele, summoned help from "all the dragons of Molokai, Lanai, Maui, Kahoolawe and Hawaii." (Westervelt, 1973, p.157).

Kibeaealani: 20th name on the list of "Na Moi o Kahoolawe". A male.

Kikau: A Hawaiian man who was born on Kaho'olawe, but was living at Olawalu, Maui in 1866. The census of that year records that he was over 40 years of age and married. It also indicates that he worked as a *lawaiia*, a fisherman. (the 1866 census forms are on file in the Hawaii State Archives)

Kimeona: A Hawaiian man who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1899 and 1902. Kimeona is mentioned in the ranch ledgers as being payed on July 1899, April 1900, July 24th 1900, September 1900, January 28th 1900, July 1901, October 1901 and July 1902. (Kahoolawe Ranch Ledger 1899-1901)

Kimokeo, Keanini: Captain of the sampan "Heeia Maru", which was owned by the Oahu Shipping Co.. He died of injuries sustained when a small boat he was rowing was tossed up onto the beach at Kuheia, and he was crushed beneath it. The accident occurred in January, 1919, when Kimokeo was unloading supplies for the ranch. He died two days later of internal injuries. (Maui News 1/24/1919:1:c.2). Kimokeo was buried on the ridge above Kuheia near the ranch foreman's house. (David Pedro, pers. comm.).

Kinimaka: A minor chief who, on the 4th of February, 1840 was banished to Kaho'olawe for the term of five years for forging the will of Hoapili (Kekauluohi's Book, Lunalilo collection, State Archives). Kinimaka is probably the Kenemoneha described by Wilkes as being seen by his men on Kaho'olawe in 1841. (Wilkes, 1844, pp260-2). Accounts differ, and Kamakau describes him as a "petty chief" condemned as a rebel and sentenced to ten years exile on Kaho'olawe. Kini-maka served seven years before he was pardoned. (Kamakau, 1961, p.356-7). One account speaks of him as having been "commissioned governor of the exiles." (Rodman, 1939, pp.39-40). [see Kinimaka Letters]

Kuakawaiea: 15th name on the list of "Na Moi o Kahoolawe". A male.

Ku a Moana Ha: A teacher or kahuna of astronomy and navigation study, whom Inez Ashdown says taught at the heiau, "Up by Moa'ula and Lua Makika". His twin sons or relatives were associated teachers. (Ashdown Papers, speech of Feb. 1976).

Kuiki. Kealoha: A relative of Harry Kunihi Mitchell of Keanae, Maui. Mitchell, recently deceased, cited him as the source of three chants concerning Kaho'olawe. Two of these chants; "Deep Chant of Kaho'olawe" and "The Spring Waters of Kaho'olawe[Kamohio?]", were written down from memory and translated by Mitchell. "Mr Mitchell indicated (1983) that he heard these chants (and a third concerning Halona, Kaho'olawe) in his youth (perhaps around 1930) and again as a young man (c 1940s) from his Grandmother's cousin, Kealoha Kuiki, and that he understands them to be ancient." (Keene 1985:33)

Kunaka: An ali'i (chief) of Waipio Valley, island of Hawaii, during the time of Moikeha (c. 1400s). According to legend, Kila, Moikeha's son was adopted by Kunaka after having been abandoned by his brothers in Waipio. (Fornander, Hawaiian Antiquities, Vol. 1, pp. 112-157). By the time of Kamehameha I, Kunaka's name became so closely associated with Waipio, that the Kaua'i chief Kaeokulani, in speaking to his warriors prior to their attack on Kamehameha's forces, is said to have cried, "Be strong and valiant and we shall drink the water of Waipio and eat the taro of Kunaka". (Westervelt, 1923, p.158). An old, undated map of Kaho'olawe (Doc. 1126 in the Hawaii State Archives) list the "Cave of Kunaka" as lying along the shores of Kamohio bay. Whether there is any link between the historic Waipio chief and the cave is unknown.

Ku'ula: God of abundance in the sea, and the father of 'Ai'ai who established the first ko'a (fishing shrine) on the island of Kaho'olawe. (Thrum, 1907, p.238)

Kynnersley. Clement: He and his brother J.R. Seyd Kynnersley took over the Kaho'olawe lease from W.H. Cummins in 1887 with their partner Randall Von Tempsky. (Judd, 1916: p.119).

Kynnersley, J.R. Seyd: He and his brother Clement Kynnersley took over the Kaho'olawe lease from W.H. Cummins in 1887 with their partner Randall Von Tempsky. (Judd, 1916: p.119).

Laamaikahiki: "Sacredness from Distant Lands"; ancient voyager who is said to have departed for Kahiki from Lae o Kealaikahiki on Kaho'olawe (Reeve, Ms.). He is also the 2nd name on the list of "Na Moi o Kahoolawe".

Laaloa: 8th name on the list of "Na Moi o Kahoolawe". A female.

Laumaiakahiki: 7th name on the list of "Na Moi o Kahoolawe". A male.

Lewis, ?: "a Frenchman who is chief of Kahoolawe; he is a pleasant and generous acquaintance." This description is given by a journalist for the Hawaiian language newspaper "Ka Lahui", who accompanied King Kalakaua on his visit to Kaho'olawe in 1875. (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).

Low, Eben P.: Low: Purchased the lease of Kaho'olawe from C.C. Conradt in 1906. (Judd, 1916, p.119). Low is described as "a well-known citizen of Honolulu, one of the city supervisors." (The Sunday Advertiser, 1/14/1912).

Luaehu: A Hawaiian woman, born on the big island, but living on Kaho'olawe during the 1866 census. At the time of the census she was over 40 and married, probably to Hau. If so, her son would have been Hau opio (Hau junior). She is listed in the census as "Malama ohana" (taking care of the household). (Census schedules in AH file, "Lahaina 1866").

Luka: A Hawaiian woman who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1899 and 1902. Luka, who appears to be the wife or the ranch manager, Auhana, is mentioned in the ranch ledgers on July 1899, July 1901, October 1901 and July 1902. (Kahoolawe Ranch Ledger 1899-1901)

MacPhee, Angus: Leased Kaho'olawe for ranching from 1917 to 1941 when the island was taken over by the U.S. Military. From 1920 on he leased in partnership with Harry Baldwin. MacPhee was born in Wyoming, August 9th, 1874. He arrived in Hawaii in December of 1907, and in 1908 took a job with the Ulupalakua Ranch on Maui. (Inez Ashdown personal photo collection, copy in State Historic Preservation Office).

Maikai: Bronco buster and foreman of Kaho'olawe Ranch in 1910, when it was under lease to Eben Low. (The Sunday Advertiser, 8/28/1910, p.1, c.4). Charles Forbes, in his Note on the Flora of Kahoolawe and Molokini (Forbes, 1913:9), writes that "Mr. Maiki, the caretaker, tells me that with his son he has shot many pigeons which had corn in their crops, and hence, had probably flown across the channel from Kula, Maui." The "Mr. Maiki" Forbes refers to is most likely Maikai.

Makaikolani: A Hawaiian woman born in Olowalu, Maui, who was living on Kaho'olawe at the time of the 1866 census. She was over 40 at the time of the census and married, probably to

Ho. Nahooikaika was most probably her son. (Census schedules in AH file, "Lahaina 1866").

Maka'oe: A former resident of Kaho'olawe who accompanied Edward Perkins on his 1850 visit to the island. (Perkins, 1854, pp.158-168) According to Perkins, Maka'oe's name translates as "sharp-eyes". If this is true, then his name would be more properly spelled as Maka'oi. (Pukui & Elbert 1971:210)

Mamaawa: A Hawaiian man, resident on Kaho'olawe during the 1866 census. Mamaawa was born on the island, some time between 1826 and 1851. He was married at the time of the census, probably to Kamaka, a Hawaiian woman from Wailuku, Maui. In the census Mamaawa is listed as a "Hanalima" (manual laborer), probably working for E.H. Allen, who then ran a sheep ranch on the island at that time. Mamaawa claimed to own kuleana land. (Census schedules in AH file, "Lahaina 1866").

Manu. Moke [also known as Moses Manu]: A writer of Hawaiian legends who recorded the legend of Ku'ula and of his son 'Ai'ai (Thrum, 1921:215-249). Kahaulelio, who knew him from boyhood, writes; "Moses Manu the well known writer of Hawaiian legends, who may be at Honolulu or at Ewa or perhaps in Hana, his birthplace." (Kahaulelio, 1902:64). He also states that both he and Moses were eleven in 1848.

Mauae: A Hawaiian passenger on the schooner "Keola" which was lost at sea in 1840. He died, but his wife, Kaluawahinenui, swam to Kaho'olawe and was rescued. (Jarvis, 1844, p.280-2).

Mauliawa: 18th name on the list of "Na Moi o Kahoolawe". A male.

Mayor. Ed M.: In 1858, Mayor wrote to R.C. Wyllie (who then held the lease to the island) regarding "permission to establish a whaling station on the Island of Kahoolawe during the coming season...". (R.C. Wyllie Private Col.; 5/8/1858)

Merrill. O.B.: In 1857 he applied for a 25 year lease on the island of Kaho'olawe. (Int. Dept. Letter Bks.: No.7A;p.45). Possibly this is the same Merrill who, in 1859, sold about 2,000 sheep, from his flock in Makawao, to R.C. Wyllie and E.H. Allen, who were then leasing the island of Kaho'olawe. At least 3/4 of the sheep were found to be diseased. (R.C. Wyllie Private Col. 5/17/1859).

Miyata. H.: Miyamata was a principle of Shibata, Miyata and Associates, a corporation formed to sub-lease up to 2,500 acres of land on Kaho'olawe from McPhee and Baldwin for the raising of pineapple. The sub-lease was drafted on March 15th, 1929. The project, however, was never implimented because of problems in developing the necessary infrastructure.

Mokupane: An ancient Hawaiian priest who, according to legend, order and supervise the digging of the well at Keanapou within which the kupua (demigod) Kalaepuni was killed. (Fornander, 1916-19, V, p.198-205).

Morgan, George: A convict who was exiled to Kaho'olawe, possibly around 1848. In November of 1847 he was "convicted of burglary and larceny, and was in jail awaiting banishment." (Greer, 1970, pp.79-80). In 1852 Morgan was removed from the island after he fell seriously ill. (Int. Dept. Land File:1/14/1852). Prior to this time his banishment was described as "pleasant - he was not bound under surveillance or labor, and had also some feminine companionship; he hunted wild hogs at will and cultivated a patch of land. Water again was a problem as it had to be brought from a considerable distance." (Thrum, 1902, p.120).

Mortensen, Hans: Mortensen appears to have been hired by Christian Conrardt to work on the sheep ranch that Conrad ran on Kaho'olawe. An article in The Honolulu Advertiser of July 24th, 1955 states that; "He took his wife and four children to Kahoolawe in 1902...He stuck it out for three years. The other members of the family [children]who lived on Kaho'olawe were Olivia (Mrs. John C. Cluney), Clara (Mrs. Clara Willis) and Hans Mortensen Jr. [and Carl N. Mortensen]. All now live in Honolulu." (The Honolulu Advertiser 7/24/1955:A5:c.1)

Nahaolelua, Paul: The Governor of Maui who, in 1857, along with Ioane Richardson was sent by Lot Kamehameha to Kaho'olawe to report on the condition of the island, to ascertain "whether it is suitable for raising cattle or sheep", and to determine a "fair rental" for the land. (Int. Dept. Letter Bks.: 7A: p.51). Their report indicates that "there are some fishermen living on Kahoolawe, maybe not over fifteen, if the men, women and children are combined." It also provides some place names and describes the existing vegetation, water sources and anchorages. (Int. Dept. Land File: 12/7/1857). He later served as Minister of Finance for Kalakaua's first cabinet.

Nahooikaika [Nahoikaika or Nahoikeika]: A one time resident of Kaho'olawe. Nahooikaika was listed in the 1866 census of the island as being a young boy, under 15 years of age, who was born on Kaho'olawe. He was single at the time and living in the household of Ho, who was probably his father (Census schedules in AH file, "Lahaina 1866"). Nahooikaika apparently left the island soon after. In 1913 he was living in Olowalu, Maui (the birthplace of Makaikolani, who was most probably his mother). It was here that he was interviewed by J.F.G. Stokes. On page 3 of his 2nd journal dated 1913, Stokes writes, "In the evening I hired a machine to go to Olowalu to see Nahoikaika who once belonged to Kahoolawe. He said he knew little of the island, being young when he left. He said that there was a big cave at Ahupu Bay." (Stokes 1913, Book II:3).

Nalimu: A Hawaiian man who was born on Kaho'olawe. Nalimu is listed in the 1866 census as being a single male between 15 and 40 years of age, which would mean that he was born some time between 1826 and 1851. He is listed as a "Hanalima" (manual laborer), probably working for E.H. Allen, who then ran a sheep ranch on the island at that time.

Nalimu lived in the household of Mamaawa and may have been his brother or son (Census schedules in AH file, "Lahaina 1866").

Nalimahaua: 6th name on the list of "Na Moi o Kahoolawe". A male.

Onaka: This name, "ONAKA"[with the N backwards], was found inscribed on the inland face of a large boulder along the coast west of Makaalae. The petroglyph boulder has been designated Site 340, Feature B.

Ouiakalani: 21st name on the list of "Na Moi o Kahoolawe". A male.

Pae Hannah: A full blooded Hawaiian woman, Hannah was the wife of Benedictus Auhana Akina who worked for the Kaho'olawe ranch from (at least) 1899 to 1904. She appears to have had three children; John, Anthony and Alexander B. Akina, all of whom were born on Kaho'olawe. "The family left Kahoolawe when Alexander was a year old because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) That would have been in 1904, for Alexander was born on April 27, 1904. After leaving the island the family appears to have moved to Kihei, Maui.

Paele: A Hawaiian man who was born on Kaho'olawe, but was living at Olawalu, Maui in 1866. The census of that year records that he was over 40 years of age and married. It also indicates that he worked as a *mahi'ai*, a farmer. (the 1866 census forms are on file in the Hawaii State Archives)

Pahulu: A spirit driven from Lanai by Kaululaau, who came to live on Kaho'olawe. (Fornander, 1916-19, IV, p.486-9).

Palila: Legendary strong man who is said to have stopped on Kaho'olawe during his travels through the islands. (Fornander, 1916-19, V, p.148).

Peapea: 13th name on the list of "Na Moi o Kahoolawe". A male.

Pedro Manuel: The foreman of the Kaho'olawe Ranch and sole occupant of the island for the last years of the ranching period, to 1941.

Perreira Commache: A paniolo who worked for Angus MacPhee on Kaho'olawe during the 1930s. (Ashdown Papers, Feb. 1976 lecture).

Pickard Tom: A possible resident on Kaho'olawe in 1903. (Maui News, 5/23/1903, p.4, c.3).

Pu'uoinaina: a Mo'o who is said in ancient times to have lived on Kaho'olawe. She was killed by Pele, who cut her in two. Her head formed Puuolai on Maui, her tail the islet of Molokini. (Fornander, 1916-19, V, p.514-19).

Pua Komo: 1st name on the list of "Na Moi o Kahoolawe". A male.

Preever Mark: a Waikapu resident attempted to purchase a 1,000 acre parcel on Kaho'olawe for \$.25 per acre. Preever, and his partner George Shaw hope to raise sheep and goats, and to cultivate sweet potatoes. (Int. Dept. Land File: 4/18/1856). Their request appears to have been denied.

Remy, Jules: Explorer and naturalist Jules Remy visited Kaho'olawe at some point during his stay in the Hawaii (1851-55). He collected a number of plant specimens on the island (13 in all?). A list of these was compiled by Dr. St. John (entitled "Remy Collection from Kahoolawe"), and a xerox copy of this handwritten list is contained in the "PSIC Reference File, Hawaii, Kahoolawe vegetation, 1913-1982" held at the Bishop Museum archives.

Richards, Rev. William: Reverend Richards was the resident missionary at the Lahaina station from 1823 to 1838. His parish included the islands of Maui, Moloka'i, Lana'i and Kaho'olawe. Rev. Richard's letters, copies of which are on file at the Hawaiian Mission Children's Society Library, serve as one of our earliest sources of information about Kaho'olawe.

Richardson, Ioane: in 1857, along with P. Nahaolelua, was sent by Lot Kamehameha to Kaho'olawe to report on the condition of the island, to ascertain "whether it is suitable for raising cattle or sheep", and to determine a "fair rental" for the land. (Int. Dept. Letter Bks.: 7A: p.51). Their report indicates that "there are some fishermen living on Kahoolawe, maybe not over fifteen, if the men, women and children are combined." It also provides some place names and describes the existing vegetation, water sources and anchorages. (Int. Dept. Land File: 12/7/1857).

Robinson, Rufus W.: Robinson, a Honolulu businessman who was manager for the "Polk-Hustad Business Directory", served as President of the Kaho'olawe Honey Company from 1919 to 1928.

St. John Gilbert, Lee: Vice President and Manager of the Algaroba Feed Company Ltd., St. John Gilbert was also Secretary for the Kaho'olawe Honey Company from 1919 to 1928.

St. John Gilbert, O.: Manager of the Sandwich Island Honey Company and Treasurer for the Algaroba Feed Company Ltd., St. John Gilbert was also Treasurer for the Kaho'olawe Honey Company from 1919 to 1928.

Shaw, George: a Waikapu resident attempted to purchase a 1,000 acre parcel on Kaho'olawe for \$.25 per acre. Shaw, and his partner Mark Preever hope to raise sheep and goats, and to cultivate sweet potatoes on the island. (Int. Dept. Land File: 4/18/1856). Their request appears to have been denied.

Shaw, Pat: A possible resident of Lahina who, in 1858, wrote to Lot Kamehameha offering to live on Kaho'olawe to look after his animals and other possessions on the island. (Int. Dept. Misc. Matters: 4/28/1858).

Shibata, H.: Miyamata was a principle of Shibata, Miyata and Associates, a corporation formed to sub-lease up to 2,500 acres of land on Kaho'olawe from McPhee and Baldwin for the raising of pineapple. The sub-lease was drafted on March 15th, 1929. The project, however, was never implimented because of problems in developing the necessary infrastructure.

Thompson: Naturalized Hawaiian skipper of the schooner "Keola", lost at sea in 1840. Thompson died at sea, but his wife and three others swam to Kaho'olawe and were rescued. (Jarvis 1844:280-2).

Togo: A Japanese laborer on Kaho'olawe in 1910, when the ranch lease was owned by Eben Low. (The Sunday Advertiser 8/28/1910, p.1, c.4).

Torbet: Torbet's connection with the island of Kaho'olawe is uncertain. He is mentioned once, in passing, in an 1858 letter from William Allen to R.C. Wyllie and Elisha Allen. "Mr. Torbert who has been all over the Island thinks there is ample pasturage for 20,000 sheep." (Letter of May 31st, 1858 in the R.C. Wyllie Private Collection at the Hawaii State Archives, page 2)

Von Tempski, Randall: Took over the Kaho'olawe lease from W.H. Cummins in 1887 with his partners the Kynnersley Brothers. (Judd 1916:119).

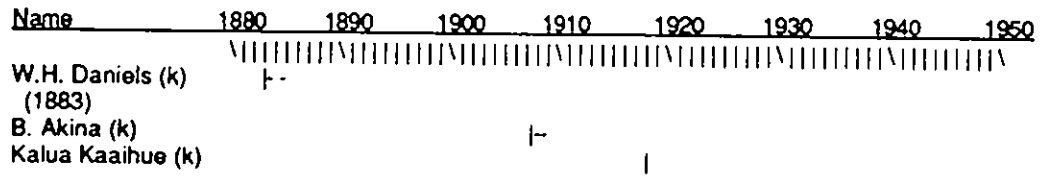
Von Tempski, Armine: Daughter of Louis von Tempski, a friend of Angus MacPhee, she was a constant visitor to Kaho'olawe when young, and later wrote the novel "Dust", which is set on the island.

Wallace, Robert: Apparently the manager of the Kynnersley-Von Tempsky interests on Kaho'olawe in 1888. (Int. Dept. Land File: 3/5/1889).

Webster, William: The King's land agent who, in 1859, was hired by R.C. Wyllie to visit Kaho'olawe and report on the condition of the island and of the sheep he had recently shipped there. (R.C. Wyllie Private Col.; 5/4/1859).

Wyllie, R.C.: In April of 1858, Wyllie, then chancellor of the kingdom, bought a twenty year lease on the island of Kaho'olawe for the sum of \$505.00 per year. His intent was to raise sheep on the island. (The Polynesian, 4/3/1858, p.381, c.3).

Youngson, George: An English carpenter who resided in the Hawaiian islands for several years. In 1819 Youngson was living on Guam when he provided Louis Freycinet with estimates of the populations of the various Hawaiian islands as they were in 1805. He placed the population of Kaho'olawe at 160 individuals. Freycinet commented that "the material, which he claims to have arranged very carefully, seems to offer only rather arbitrary approximations." (Freycinet, 1978, p.66)



Appendix G

Na Kama'aina O Kaho'olawe

A Preliminary List

of the known Hawaiian residents of the island of
Kaho'olawe:

Awaloa: A Kaho'olawe man living at Makena, Maui, whom Stokes tried to interview. On page 5 of his second journal, dated 1913, he writes, "Arrived at Makena at 12 and enquired for Kamaaina of Kahoolawe. Was told that Awaloa, the only Kahoolawe man had died two weeks before. We interviewed Ms. Awaloa who knew nothing." (Stokes 1913, Book II:5)

Hau: A Hawaiian resident of Kaho'olawe listed in the census of 1866. Hau was a married man over 40 years of age who was born on the island (some time before 1826) and who worked as a "Hanalima" (manual laborer), probably for E.H. Allen's sheep ranch. His (apparent) son, Hau opio (Hau junior), was also born on the island and was less than 15 at the time of the census. His wife may have been Luaehu. In the census Hau indicated that he owned kuleana land. (Census schedules in AH file, "Lahaina 1866").

Hau opio (Hau junior): A native of Kaho'olawe, who was born on the island some time after 1851. Hau opio is listed in the 1866 census as being a single male under 15 years of age. His father was Hau and his mother was probably Luaehu, a woman from Hawai'i. (Census schedules in AH file, "Lahaina 1866").

Ho: A native of Kaho'olawe who was listed as living on the island during the 1866 census. Ho was a married man of greater than 40 years of age, who was born on Kaho'olawe (some time before 1826). He worked at the time as a "Hanalima" (manual laborer), probably for E.H. Allen's sheep ranch. It is probable that he was married to Makaikolani, a Hawaiian woman from Olowalu. (Census schedules in AH file, "Lahaina 1866").

Honohina: A resident of Kaho'olawe in 1866, Honohina was listed in the census of that year as being a single male, over 40, who had been born originally on the island of Hawai'i. He is not listed as having an occupation. Honohina lived in the household of Hau, and may have been his wife, Luaehu's, brother or father. (Census schedules in AH file, "Lahaina 1866").

Kahihi: A Hawaiian woman born on Kaho'olawe (some time before 1826), and living there during the 1866 census. At the time of the census, Kahihi was over 40 and unmarried. She lived in the household of Ho, and may have been his sister or mother. She is not listed as having an occupation (Census schedules in AH file, "Lahaina 1866").

Kalamahiai: A Hawaiian woman who was born on Kaho'olawe, but was living at Olowalu, Maui in 1866. The census of that year records that she was over 40 years of age and married. (the 1866 census forms are on file in the Hawaii State Archives)

Kamaka: A Hawaiian woman, born in Wailuku, and living on Kaho'olawe during the 1866 census. Kamaka was between 15 and 40 years of age at the time of the census. She was married at the time, probably to Mamaawa, and is listed in the census as "Malama ohana" (taking care of the household). (Census schedules in AH file, "Lahaina 1866").

Kaohiki: A Hawaiian woman who was born on Kaho'olawe, but was living at Makila, Maui in 1866. The census of that year records that she was over 40 years of age and married to a man from Honua'ula, Maui. (the 1866 census forms are on file in the Hawaii State Archives)

Kauwekane. J.: On October 18, 1917, C.S. Judd, then Superintendent of the Division of Forestry, wrote a letter to J. Kauwekane [mistakenly spelled Kauwakane in Judd's letter] who was then residing at Kanahena, Makena, P.O., Maui. Judd writes; "I understand that your father was a kamaaina on Kahoolawe and that you are very well acquainted with that island. Now, I am very anxious to find out a lot of the names for the different places on Kahoolawe and hope that you will be able to help me out. For this purpose I am enclosing a large map of the island and would be very much obliged to you if you kindly place on it in pencil at the proper point the name of any or all of the points, bays, hills and valleys that you know and return the map to me in the enclosed stamped envelope." (Hawaii State Archives, Board of Agriculture and Forestry, Division of Forestry, Box 34, Charles S. Judd, Kahoolawe, 1913-1920). Kauwekane's letter in reply (Board of Agriculture and Forestry, Division of Forestry, Box 34, Charles S. Judd, Kahoolawe, 1913-1920) and the map on which he wrote those place names known to him (Map, G4382.K3, 1917, H38, .F6) are also held in the State Archives. Kauwekane also appears to have been an informant for archaeologist J.F.G. Stokes, for his name appears along with those of other known informants on an undated map drawn, possibly some time around 1913, by Stokes and presently held in the Archives of the Bishop Museum [HPF 2:8:11]. Kauwekane appears to have been living on Maui at the time, for on the map Stokes gives his address as "Kanahena, Makena P.O.". It is possible that Mrs. Lepeka Kauwekane, born 20th of April, 1863, died 8th of November, 1933, and buried at the Keawala'i Congregational Church cemetery in Makena, may have been J. Kauwekane's wife or sister.

Kekoolani: A Hawaiian woman, born on Maui and living on Kaho'olawe during the 1866 census. She was between 15 and 40 years of age at that time, unmarried, and is noted as being a "Hana lima" (manual laborer). She lived in the home of Mr. Marston, an American shepherd probably working for E.H. Allen who ran a sheep ranch on the island at that time. (Census schedules in AH file, "Lahaina 1866").

Keliikipi: A young Hawaiian boy, born in Honuaula, Maui, who was living on Kaho'olawe during the 1866 census. Keliikipi was younger than 15 at the time of the census. He was single and lived in the household of Mamaawa, who may

have been his father. (Census schedules in AH file, "Lahaina 1866"). Keliikipi's name has been found carved into a boulder on the beach of the valley immediately east of Ahupu bay. This might suggest that he was living at or near the Ahupu settlement around the time of the 1866 census.

Kikau: A Hawaiian man who was born on Kaho'olawe, but was living at Olawalu, Maui in 1866. The census of that year records that he was over 40 years of age and married. It also indicates that he worked as a *lawaiia*, a fisherman. (the 1866 census forms are on file in the Hawaii State Archives)

Luaehu: A Hawaiian woman, born on the big island, but living on Kaho'olawe during the 1866 census. At the time of the census she was over 40 and married, probably to Hau. If so, her son would have been Hau opio (Hau junior). She is listed in the census as "Malama ohana" (taking care of the household). (Census schedules in AH file, "Lahaina 1866").

Makaikolani: A Hawaiian woman born in Olowalu, Maui, who was living on Kaho'olawe at the time of the 1866 census. She was over 40 at the time of the census and married, probably to Ho. Nahooikaika was most probably her son. (Census schedules in AH file, "Lahaina 1866").

Maka'oe: A former resident of Kaho'olawe who accompanied Edward Perkins on his 1850 visit to the island. (Perkins, 1854, pp.158-168) According to Perkins, Maka'oe's name translates as "sharp-eyes". If this is true, then his name would be more properly spelled as Maka'oi. (Pukui & Elbert 1971:210)

Mamaawa (awa chewer): A Hawaiian man, resident on Kaho'olawe during the 1866 census. Mamaawa was born on the island, some time between 1826 and 1851. He was married at the time of the census, probably to Kamaka, a Hawaiian woman from Wailuku, Maui. In the census Mamaawa is listed as a "Hanalima" (manual laborer), probably working for E.H. Allen, who then ran a sheep ranch on the island at that time. Mamaawa claimed to own kuleana land. (Census schedules in AH file, "Lahaina 1866").

Nahooikaika [Nahoikaika or Nahoikeika]: A one time resident of Kaho'olawe. Nahooikaika was listed in the 1866 census of the island as being a young boy, under 15 years of age, who was born on Kaho'olawe. He was single at the time and living in the household of Ho, who was probably his father (Census schedules in AH file, "Lahaina 1866"). Nahooikaika apparently left the island soon after. In 1913 he was living in Olowalu, Maui (the birthplace of Makaikolani, who was most probably his mother). It was here that he was interviewed by J.F.G. Stokes. On page 3 of his 2nd journal dated 1913, Stokes writes, "In the evening I hired a machine to go to Olowalu to see Nahoikaika who once belonged to Kahoolawe. He said he knew little of the island, being young when he left. He said that there was a big cave at Ahupu Bay." (Stokes 1913, Book II:3).

Nalimu: A Hawaiian man who was born on Kaho'olawe. Nalimu is listed in the 1866 census as being a single male between

15 and 40 years of age, which would mean that he was born some time between 1826 and 1851. He is listed as a "Hanalima" (manual laborer), probably working for E.H. Allen, who then ran a sheep ranch on the island at that time. Nalimu lived in the household of Mamaawa and may have been his brother or son (Census schedules in AH file, "Lahaina 1866").

Paele: A Hawaiian man who was born on Kaho'olawe, but was living at Olawalu, Maui in 1866. The census of that year records that he was over 40 years of age and married. It also indicates that he worked as a *mahi'ai*, a farmer. (the 1866 census forms are on file in the Hawaii State Archives)

Appendix H

Na Moi O Kahoolawe

"The Rulers of Kaho'olawe", a handwritten list of names found on page 9 of a clothbound ledger (document #202, M-93) in the Liliuokalani Collection at the Hawaii State Archives. The list is undated. The few dates inscribed on other pages of the ledger suggest that the list was compiled sometime between the years 1894 and 1896. The letters "K" and "M" designate the sex of the individual, K standing for *kane* (male) and W for *wahine* (female).

Na Moi o Kahoolawe

Pua Komo		K
Laamaikahiki		K
Keliihumuhumu		K
Kama		K
Kamakaiholoae		K
Nalimahaua		K
Laumaiaikahiki		K
Laaloa		W
Keauhouokalani		W
Kihapuniu		K
Kauauamahu		K
Kihapu		K
Peapea		K
Kamaole		W
Kuakawaiea		K
Kepookela	[Written in a different hand]	K
Kepookalani	"	K
Mauliawa	"	K
Anoikapuakalani	"	K
Kiheahealani	"	K
Ouiakalani	"	K
Aheakalani	"	K
Hoakakalani	[Added in another, different handwriting]	K

Ka Mahe's Kahoolawe

Oua Komo	K
Paamaitakahi	K
Keliikumukumu	K
Kama	K
Kamakakoloae	K
Kalimakaua	K
Kauluomalama	K
Kaumaiakahi	K
Laaloa	W
Kauhounakalani	W
Kihafunui	K
Kauaunakau	K
Kihafunui	K
Peapea	K
Kamaole	W
Kauakawaua	K
Kepoo Kela	K
Kepoo Kalani	K
Muculiana	K
Anoikappuakalani	K
Kihapaiakalani	K
Quiakealani	K
Heihei Kalani	K
Honokakalani	K

Appendix I

The Natural Vegetation Of Kaho'olawe

From Early Historical Accounts
to 1900

<u>Hawaiian Name</u>	<u>English Name</u>	<u>Location</u>
Native Vegetation:		
Aalii	(<i>Dodonaea viscosa</i>)	"on the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857)
Akia Nenee	(<i>Wikstroemia</i> spp.?)	"upland" (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).
Akoko	(<i>Chamaesyce</i> spp.)	Eastern uplands (Perkins, 1854, pp.158-168). No specific location (Remy 1862:xxiii). "on the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857). No specific location (Allen letter, Hawaii State Archives; R.C. Wyllie Private Col.) "On the summit of the Island" (Webster letter, Hawaii State Archives-R.C. Wyllie Private Col.)
Ili-ahi	Sandalwood (<i>Santalum ellipticum</i> ?)	"on the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857)
Mamane	(<i>Sophora chrysophylla</i>)	"upland" (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).
Wiliwili	(<i>Erythrina sandwicensis</i>)	Eastern uplands (Perkins, 1854, pp.158-168). "on the kula [plains]" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857) No specific location (Allen letter, Hawaii State Archives; R.C. Wyllie Private Col.). "upland" (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).
?	Milk Weed (<i>Asclepias</i> spp.)	No specific location (Allen letter, Hawaii State Archives; R.C. Wyllie Private Col.)
?	Vines (Unknown)	Eastern uplands (Perkins, 1854, pp.158-168).

Kalamalo	Grass (Eragrostis spp.)	"growing at the seashore" and "on the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857)
Pili	Grass (Heteropogon contortus)	"growing at the seashore" and "on the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857) "upland" (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).
Introduced Vegetation:		
Pa-nini	Prickly Pear Cactus (Opuntia ficus-indica)	Northeast coast, probably Hakioawa bay (Perkins, 1854, pp.158-168). No specific location (Allen letter, Hawaii State Archives; R.C. Wyllie Private Col.)
Pilipili	Herb (Drymaria cordata) or (Acanthospermum australe)	"upland" (Ka Lahui Hawaii, 12/30/1875, p.4, c.2) File: 12/7/1857)
Maniania [Manienie]	Bermuda Grass (Cynodon dactylon)	"upland" (Ka Lahui Hawaii, 12/30/1875, p.4, c.2). No specific location (Pacific Coast Commercial Record, 5/1/1892, p.1,c.2)
Umealu	Bur Grass (Cenchrus echinatus)	"on the kula[open country] near the seashore" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857)
Kikania	Cockleburs (Xanthium strumarium)	"on the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857)
Pualele	Sow thistle (Sonchus oleraceus)	"on the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land File: 12/7/1857)
Kukaepuaa	Grass (Digitaria spp.)	"some places of the mountains" (Nahaolelua letter, Hawaii State Archives Int. Dept. Land

Descriptions

1850

"Our first care was to provide a suitable place to pass the night; some of us had already begun to cast inquiring glances towards the lee-side of a large cactus which grew near the shore,". (Perkins 1854:158-168)

"At one place was passed what had once been a grove of akoko trees, but nothing now remained save an area covered with withered trunks and branches, bleached as white as skeletons in the sun, the bark having been stripped from them by the goats. We saw akoko and a few shrubs growing farther up the mountain, and these, together with a few stunted wiliwili trees, were the only living representative of the vegetable kingdom worth noticing."(Perkins 1854:158-168)

"My shoes had by this time been torn from my feet, so that I was compelled to lash the soles on (like sandals) with strong vines, which grew here in abundance."(Perkins 1854:158-168)

1851-55

"...several shrubs, among them *Euphorbia* and *Violaria*, but one does not see pandanus, breadfruit, nor *kukui* ; in a word no vegetation which reaches the size of a tree." (Remy 1862:xxiii)

1857

"The grass growing at the seashore are the kalamalo and the grass for thatching houses ["a me ke Pili ako Hale"] which grow plentiful there, and other things that properly grow on the dry seashore, and some weeds with thorns, which grow during the rainy seasons on the kula near the seashore and called umealu (Fox-tail). On the mountains, the kalamalo is the grass that grows most, and there was also some grass for thatching houses, and in some places of the mountains, the kukaepuaa grass was also growing, and there was quite a spread of kikania horse feed, and a few pualele (sow-thistle).

Of the trees on the mountains, there are no large trees on the mountains, there are growing akoko trees, low, not more than 4 feet high, and there are some small aalii trees, very few, and small sandal wood ["ili-ahi"], and there are some other small trees, a few, and on the kula some small wiliwili trees, and they are few." (Paul Nahaolelua's letter to Lot Kamehameha, the original of which is held in the Hawaii State Archives, Interior Department Land File:12/7/1857 (Appendix Q))

1858

"there are especially two kinds of Grass which abound, both of which are very coarse, there is also a shrub called Aacoco which is filled with a milky juice of which sheep are very fond, and it answers for both food and drink for them.

The Aacoco and a shrubby tree called Widde Widde are all the approach to trees on the Island. The Prickerly Pear grows here, and a very small shrub a species of milk weed."

(this quote is taken from William Allen's letter to R.C. Wyllie on file in the Hawaii State Archives; R.C. Wyllie Private Collection (Appendix R))

1859

"On the summit of the Island there is about four to five thousand acres of land where I should suppose from its appearance the feed was sufficiently green throughout the year to support sheep without water.

About half of this land is at present covered with a scrubby brittle succulent plant called 'akoko', which when broken yields a thick milky juice & which in my opinion renders this portion of the upland unfit at present for a wool bearing animal." (this quote is taken from William Webster's letter, Hawaii State Archives; R.C. Wyllie Private Collection)

1875

"There are forest plants upland, Mamane, Akia Nenee, Wiliwili, Maniania (Mahiki), Pilipili grass and pili grass used to thatch houses with, which grows here abundantly on the shoreline capes island-wide." (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).

1892

Kahoolau has been generally described as a barren and unproductive island, but incorrectly so, as within its sixty square miles of area there is considerable land adapted to grazing, and where manienie grass grows quite abundantly." (Pacific Coast Commercial Record, 5/1/1892, p.1,c.2)

Appendix J

The Water Resources Of Kaho'olawe

A description of the potablewater resources
of Kaho'olawe taken from early historic accounts
of the island.

Traditional

Harry Kunihi Mitchell of Keanai, Maui relates a chant taught him by his kupuna Kealoha Kuike which speaks of a fresh water spring; "Which is hidden high in the cliff", "on the east end of Kamohi'o Bay". (Keene 1983:64-65)

1840

Following the wreck of the schooner "Keola", a Hawaiian woman named Kaluawahinenui was cast ashore on Kaho'olawe. "Too fatigued to go far, she sought for food and water; the latter only, a little rain, which had recently fallen, she found in the hollows of the rocks, and that was her sole sustenance." (Jarves 1843:280-2)

1841

"the surface is barren and there is no fresh water, excepting a brackish pool..." (Dana 1884:232)

1850

Adventurer Edward Perkins spent a few days on Kaho'olawe in search of a ship wrecked on its shore. The following are excerpts from the account of his visit. "Makaoe disappeared with a calabash up one of the ravines for water." "There was neither stream or spring upon the island; our thirst was quenched at the pools of rain-water where rocky basins had furnished natural reservoirs." "Our path soon led through a broad valley of considerable extent, and down a cliff that formed its lower bound, water was trickling as it oozed from the ground above, which had been thoroughly saturated by the recent rains." (Perkins 1854:158-168)

1857

In a letter to Lot Kamehameha, reporting on the results of their survey of the island, Paul Nahaolelua and Ioane Richardson remarked on the availability of both fresh and brackish water. "The water on Kahoolawe: There is no fresh water there. but, the old residents stated that during the rainy times fresh water may be found in small pools, but these waters did not last, when the sunny times came they soon dried up. Brackish water: There are not many places on this Island where brackish water may be found. There is only one brackish water which is accessible seen by us, at Ahupu harbor, this brackish water being on the North West of said Island. And the old residents informed us, that there is another brackish water on the South East side of said Island, it is in a bad place under the cliff at a place called Waikaalulu, another brackish water is at the East side of said Island, at Kanapou, the well where Kalaepuni was

murdered. "These are the only three places known where brackish water may be found on Kahoolawe." (the original and a translation of Nahaolelua's letter is on file in the Hawaii State Archives, Interior Department Land Files: 12/7/1857 (see Appendix Q))

1858

In speaking of George Morgan, the last convict on Kaho'olawe, who lived at Kaulana, Thrum says; "Water again was a problem as it had to be brought from a considerable distance." (Thrum 1902:120)

1858

"On the South and seaward side there is a small harbour [Wai Kahalulu], but I do not think it would be of much use as it is too far off. There as well as at the Harbour on the other side [Ahupu] is a small well of water, and by digging no doubt plenty of water could be obtained, but it would be brackish." (from a 1858 letter to R.C. Wyllie from William Allen on file in the Hawaii State Archives, R.C. Wyllie Private Collection: May 31st, 1858. (see Appendix R))

1859

During his visit to the island in 1859, William Webster; "...found water in one place & this was in an old crater about three miles from the south end of the Island [Lua Kealia Lalo?]. It stands in the bottom of the crater in a shallow pool, very muddy & red & I believe dries up in the autumn." (Webster's letter of June 2, 1859 is in the Hawaii State Archives, R.C. Wyllie Private Collection)

188?

In his Hawaiian Geography, A.S. Barnes reported that; "The water-supply [for the ranch] is obtained chiefly from the rain, though there are some wells of brackish water. There are no running streams." (Barnes 188?:18)

1892

In the Pacific Coast Commercial Record for 1892 can be found the following description. "The islet has no constant lakes or streams, the nearest approach to such being what were probably at one time the craters of two volcanoes now extinct, where water remains for some time after heavy rains. A number of wells have been dug, but the water when found has always been brackish." (Pacific Coast Commercial Record 1892:1:c.5)

1901

Among the correspondence which passed between Auhana, the resident ranch of Kaho'olawe in 1901, and W.F. Dillingham, who owned the lease to the island at that time, is one letter, written in August, which mentions the lack of rainfall. "They [the sheep] are beginning to become thin because there is no water in the streams; the heat of the sun has caused terrible dryness. The pump water from the wells is the only water available that the animals can drink now, and if this heat continues for very long without rain soon, then it will be such that the sheep will go to the capes along the shoreline and drink brackish, salty water." (this

quote is taken from a letter dated August 16, 1901, in the Dillingham Collection at the Bishop Museum Archives)

1909

"The water in the few surface wells in the larger gulches has always been too brackish to be relished by stock, and consequently when a prolonged drought dried up surface water in pools in the gulches and in the two natural reservoirs near the top of the island, the stock naturally died from thirst." (Judd 1916:121)

1918

When Hawaiian Territorial governor McCarthy visited the island in September of 1918, he is quoted as saying; "There are good crater reservoirs on the island, one of which holds water for several months at a time." (Maui News 9/6/1918:3:c.1)

1938

In her 1938 article on Kaho'olawe, Inez Ashdown remark that; "water saved in tanks and cisterns, as well as that in a 'lake' below Moa Ula [Lua Kealia Luna or Lua Moaula], was plentiful." (Honolulu Star Bulletin 2/12/1938:1:c.1-5)

1939

Harold Stearns who visited Kaho'olawe in 1939 to study the island's geology, reported that; "Water a few feet deep stands for part of the year in the craters of Kealialalo and Kealialuna. The latter has a dam a few feet high at the outlet of the depression. Both will hold water for six months or more, according to the frequency of the rains. At one time it was planned to build collection ditches and store additional water in Kealialalo, but the plan was abandoned because the depression would have filled to rapidly with silt. Seven dug wells once existed on the island, but five of them are now filled. (Stearns 1940:130) He then goes on to list four Hawaiian dug wells at Ahupu, Ahupuiki, Hakioawa and Kanapou; and three ranch wells dug at Ahupu, Kaulana and Hakioawa. (Stearns 1940:130)

1930s

"When the rain water was deep and stayed a long time the Lua Makika (Mosquito Hole, literally) lived up to these names. Actually, Lua Ma-kika refers to where the watersources collect and are the base, or pillar, of the Springs down along the shore. Mr. Deinert of HC&S Co told us he could get spring-water any time, because, underground, it flows to the Aina Kanaloa. We never tried because of the big expense. Besides, we had enough to manage to retain life on the land.. Later, we would have tried drilling as he had advised." (this quote is taken from page 7 of a 1977 letter from Inez Ashdown to Capt. Crockett, then Navy commander on Kaho'olawe, a copy of which is presently held in the files of the Hawaii State Historical Preservation Office)

1930s

"Up there [in the uplands of Kaho'olawe], particularly in Makika, during Kona storms the lua filled with water." (taken from page 2 of a sheaf of pages entitled "Kahoolawe - Heiau

and other structures, 10/12/75 - for Jane Silverman by request", a copy of which is held at the Hawaii State Historical Preservation Office)

1930s

On an undated sketch map of Kaho'olawe presently on file in the Bishop Museum Archives (Ashdown undated-b) Inez Ashdown has written the note, "Lae Paki has a Spring named WAI LALO". She located this spring just inland of the promontory which lies midway between Kaukukapapa and Honokoa.

Appendix K

AGRICULTURE ON KAHO'OLAWE

Historical References to Agriculture on Kaho'olawe
To 1900

<u>Hawaiian Name</u>	<u>English Name</u>	<u>Locality</u>
Food Crops:		
Uala Maoli	Sweet Potato (Ipomea batatas)	Upper Hakioawa Valley (Perkins 1854:158-168). "On the mountain" [slopes of Moaulanui] (Nahaolelua, Hawaii State Archives-Int. Dept Land File: 12/7/1857)
Uhi	Yam (Dioscorea alata)	Uncertain (Malo, 1971, p.206). Kaulana Bay vicinity Rodman, 1939, pp.39-40).
Ko Ula	Red Sugar cane (Saccharum officinarum)	Uplands, particularly Moaulanui (Hawaii State Archives-R.C. Wyllie Private Col., May 31st, 1858)
Maia	Banana (Musa spp.)	Uncertain (Forbes, 1913 p.86).
Kalo	Dry Land Taro (Colocasia esculenta)	Uncertain (Forbes, 1913 p.86).
Kupala	Wild Sweet Potato (Ipomea spp.)	Kaulana Bay vicinity (Thrum 1902:122 & Rodman 1939:39-40).
Hala-Kahiki*	Pineapple (Ananas comosus)	Kuheia (Hawaii State Archives-Int. Dept Land File: 12/7/1857).
Ipu-'ai(?)*	Mellon (?)	Uncertain (Hawaii State Archives-R.C. Wyllie Private Col., May 31st, 1858)
Ipu-'ai-maka(?)*	Watermelon (Citrullus vulgaris)	Uncertain (Jarves 1843: 280-2)
Pala'ai*	Pumpkin (Cucurbita pepo)	Uncertain (Hawaii State Archives-R.C. Wyllie Private Col., May 31st, 1858)
Other Cultivated Plants:		
Ipu 'Awa'awa	Calabash Gourd (Lageneria siceraria)	Kuheia (Hawaii State Archives-Int. Dept Land File: 12/7/1857).
Ki	Ti (Cordyline terminalis)	Cliff bordering Kanapou Bay (?) (Sterns, 1940, p,124)
Laaui Kau(?)	Uncertain	Kuheia (Hawaii State Archives-Int. Dept Land File: 12/7/1857).
Laaui Ohai*	Monkeypod (Samanea saman)	Kuheia (Hawaii State Archives-Int. Dept Land File: 12/7/1857).

Paka* [Baka] Tobacco
(?)

Kuheia (Hawaii State
Archives-Int. Dept Land
File: 12/7/1857).

Domestic Animals:

Pua'a Pig

Kaulana (Thrum, 1902,
p.122).

'Ilio Dog

Ahupu(?) (Hawaii State
Archives-R.C. Wyllie
Private Col., May 31st,
1858).

Kao* Goat

(Perkins 1854:158-168)

**Introduced*

Descriptions

Traditional

"Kaho'olawe 'ai kupala, Kaho'olawe, eater of kupala .[wild sweet potato](Kupala was eaten here for lack of other food.)" (Pukui & Elbert, 1981, p.170).

1832

"ONEHOW and TOWROWA [NIIHAU and KAHO'OLAWA], rather poor places, but celebrated for producing the largest and finest vegetables of all the group;" (James, 1832, p.6).

1840

"Kahoolawe was made up of kula land, and the principal vegetable was the potato, besides which yam and sugar cane were produced, but no taro." [Malo's book was translated and edited in 1898, but was probably written some time around 1840]. (Malo, 1971, p.206).

1840

In speaking of a Hawaiian woman, Kaluawahinenui who was castaway on the island of Kahoolawe following the wreck of the schooner Keola, Jarves says; "She was fast failing, when, on Friday morning, she discovered some watermelons, and ate one." (Jarves, 1844, pp.280-2).

1841

"On the north side of the island, there is a better soil, of a reddish colour, which is in places susceptible to cultivation." "The only article produced on the island is the sweet-potato, and but a small quantity of these." (Wilkes, 1844, pp.260-262).

1841

"Much trouble resulted because of the lack of food [at the penal colony], Kupala [wild sweet potato] which was abundant and which was usually fed to the hogs, was a poor substitute although it resembled the sweet potato (dysentery was a consequence of a staple diet of this tuber)." (Thrum, 1902, p.122). "The men [convicts] were sent to the tiny bay of Kaulana on Kahoolawe, where some 80 residents fished, and tended the meager patches of yam and pigweed under a felon chief, Kinimaka, who had been commissioned governor of the exiles. Famine was an everpresent threat in those times. Often the convicts were forced to subsist entirely on the roots of the kupala or pig-weed which produces severe dysentery if used as a steady diet." (Rodman, 1939, pp.39-40).

1850

"The air was charming; a light sea-breeze was fanning across the hills, where the shrill cries of the plover, as they winged their way to the more elevated regions, and the bleating of the wild goats, alone awoke the solitude." "We continued up the valley [upper Hakioawa?], the soil of which was tolerably fertile; it bore traces of having once been extensively cultivated with sweet potatoes, and here we beheld fresh tracks of wild hogs;" "also a few roasted sweet

potatoes, the only vegetable cultivated on this island."
(Perkins, 1854, pp.158-168).

1852

"...he hunted wild hogs at will and cultivated a patch of land" [referring to convict George Morgan]. (Thrum, 1902, p.120).

1857

"These things are growing at the seashore; at a place called Kuheia [wrongly translated as Kahueia], things planted by the old residents. An ohai [monkeypod] tree of mana ["laau ohai o mana"], 24 feet high and 2 feet in circumference, there is also growing there tobacco ["Baka"], pineapple ["Hala Kahiki"], laau kau [?], calabash gourd vine ["ipu awaawa"], and mauka in the mountains we saw a sugar-cane ["ko"] patch in a gulch, and we measured some of the red sugar-cane ["ko ula"] and the height was 6 1/2 feet, and was 5 3/4 inches in circumference. The old residents said that sweet potatoes ["Uala maoli"] will grow on the mountain if planted at the right time, they said that the potatoes were good and the tubers were large." (this quote is taken from Paul Nahaolelua's report to Lot Kamehameha, contained in a letter dated December 7th, 1857. It can be found among the papers of the Interior Department Land File, presently held at the Hawaii State Archives. The letter, originally in Hawaiian, has been translated into English by F.H. Hart. (see Appendix Q)

1858

"In the centre of the Northern part is a mound which is the highest point of land on the Island [Moaulanui], about this the soil is very good being a sort of loam [loam?], here the natives have some Sugar Cane growing; Mellons, potatoes and pumpkins grow well here." "I killed while here with the aid of Dogs belonging to the Natives one Goat and one Hog, and poisoned the meat, but whether it had the effect of Killing any Dogs I do not know, a large portion of the meat was eaten during the night, but no dead Dogs were found in the morning. It is impossible for me to estimate the number of Dogs, Goats or Hogs there as I saw but one of each, they are all very wild, one cannot get within gun shot of them, the Goats and Hogs are Killed by Dogs." (Hawaii State Archives R.C. Wyllie Private Col., May 31st, 1858).

1889

"Its residents are most limited in number, and it is otherwise noted only for the peculiarity and fineness of certain brown-tinted grasses -- that are plaited by the natives into hats -- and the growth of the sweet potato." (Nicholson, 1889, p.190).

1913

"In former times dry land taro, sweet potatoes and bananas were cultivated on the island, according to an old native." (Forbes, 1913, p.86).

1939

"The stump of a native hardwood tree, probably planted by a Hawaiian, remains at an abandoned house site on the cliff bordering Kanapou Bay. At another house site, a ti plant (*Cordyline terminalis*) still struggles against drought and wind, and on the southwest end of the island a single bush of sandalwood (*Santalum ellipticum?*) grows." (Sterns, 1940, p,124).

Appendix L

Traditional Fishing Methods Practiced On The Island Of Kaho'olawe

<u>Method Used</u>	<u>Fish Caught</u>	<u>Location</u>
Long Lining "Kaka"	hahanui (?) hapu'u (grouper) kahala (amberjack) koa'e (? snapper) lehe (?) mahukia (?) 'o'io (bonefish) opaka (?) 'opakapaka (blue snapper) ukikiki (early stage of 'opakapaka and 'ula'ula) uku (? deep sea snapper) ulua (crevalle) 'ula'ula (red snapper) 'ula'ula niho (red snapper) and others	Offshore fishing grounds, at about two hundred fathoms depth
"Kukaula"	aholehole (early stage of ahole) hahanui (?) 'opakapaka (blue snapper) ukikiki (early stage of 'opakapaka and 'ula'ula) 'ula'ula (red snapper)	aholehole (early stage of ahole) from 50, 60 to 70 fathoms deep and not any deeper than that. Known fishing grounds off Kaho'olawe include;Laeokukui, Ahupunui, Honokoa and Laepaki
Line Fishing "Ka Lawaia le he'e"	he'e (squid)	The sea around Kahoolawe
Pole Fishing "Kuikui"	ulua (crevalle)	Inshore waters; along rocky coasts
"Paeaea"	uku (parrot fish)	Inshore waters; fishing from the beach
Net Fishing "Lau apoapo"	kole pala (?) ma'i'i'i (early form of surgeon) 'omalemale (young uhu) 'opule (wrasse) panuhunuha (early stage of uhu) and others	The leeward side of Kahoolawe, from Kanapou to Lae o Kealaikahiki; beyond the reef or where there were no reefs

and others

- ? malolo (flying fish) Offshore; using long nets
set from canoes
- "Papa" weke ulua (red goat fish) North coast; in deep waters
of ten fathoms more or
less
- "Paloa" weke ulua (red goat fish) North coast; in deep waters
of ten fathoms more or
less
- Gathering
? he'e pali (small squid) Rocky shorelines
- ? makaiauli opihi (limpet) Rocky shorelines

Long Line Fishing

"Fishing in the Ocean (Moana) - - - The definition of this word is the blue sea, the deep sea ten or more fathoms in depth. There were two kinds of deep sea fishing, called kaka line fishing and the ku-kaula line fishing [both were techniques of long lining with multiple hooks; the first done with an anchor stone to weight down the line, the second without]. These were done only where the fishing grounds are found. The landmarks are the tops of the mountains of Molokai, Lanai, West Maui, Haleakala on East Maui and the island of Kahoolawe and these were observed by the fishermen of Lahaina. There were also landmarks in the lowlands because the writer thinks that when the mountain-tops were hidden away by the mists and clouds, there would be no way to locate the fishing grounds. Therefore they also had landmarks in the lowlands so that they would have no difficulty in locating a fishing ground and not have any lack of fish. From the cape of Hawea at Kaanapali running directly to the cape of Hema on Lanai, close to Maunalei; then to the cape of Kamaiki on Lanai; thence directly to the cape of Paki (the same as the cape of Kealaikahiki) on Kahoolawe; thence to the cape of Kukui on Kahoolawe then straight to the cape of Papawai [a point of land just west of Ma'alaea, Maui] are the places that are well known and have been fished in by your writer, in sunshine, in rain and in the winds that rage and blow into a terrific gale." (A.D. Kahaulelio, Ms. p.17; March 7, 1902).

"Kaka" Long Line Fishing:

"Kaka Fishing.--- In this kind of fishing, no stone weight was needed to anchor the canoe and it drifted to and fro moving with the current. The line was five kaau [forty?] in length, which was the equivalent of two hundred fathoms and that was about the depth of the fishing grounds desired to reach. Two or three men were enough for this type of fishing and each man had from forty to fifty hooks on his line." (A.D. Kahaulelio, Ms. p. 18; March 14, 1902)

[The following page of the manuscript go on to describe this fishing method] "This kind of fishing has also been called kialoa ["long, light, and swift canoe used for display and racing" Pukui & Elbert, 1957: 135] fishing and the fish caught were the kahala, ulaula, opaka, hapuu, koae, ulaula niho, opakapaka, hahanui, ukikiki, lehe, uku, ulua, kahala, mahukia, oio and so on." (A.D. Kahaulelio, Ms. p.19; March 14, 1902)

"Kukaula" Long Line Fishing:

"Kukaula Fishing.--- This is still in use and only where the fishing ground is shallow, from 50, 60 to 70 fathoms deep and not any deeper than that." (A.D. Kahaulelio, Ms. p.19; March 14, 1902) [Kahaulelio goes on to describe the marking of the line and the tying of hooks.] "Such lines are used for ulaula, opakapaka, awholehole, hahanui, ukikiki." (A.D.

Kahaulelio, Ms. p. 19; March 14, 1902) [He then describes further the fishing method, the types of hooks used, and relates some prayers spoken while fishing. The best time of year for this type of fishing, Kahaulelio goes on to say, was from October to March. No deep-sea fishing was done in the summer, and fishing for aku (trolling?) was done from April to August.]

"Most of the fishing grounds lying between Lanai, Kahoolawe, Ukumehame and Lahaina [both on Maui] are one or two miles apart. While I fish on one fishing ground the odor of my palu (food to attract fish) is bourne to the others and attract the fish from there to where we are fishing. The kuka-kaula fishing was practised since olden times and you know now what it is like and how it is done. It is well for your writer to mention the names of the fishing grounds and some of the noted people who have gone with me [and?] know of them.

Your writer knows a hundred deep-sea fishing grounds since his boyhood when I used to go with my father. I wonder what fraction of these, our fishermen of today know. Their names are..." (A.D. Kahaulelio, Ms. p.26; March 28, 1902). [Kahaulelio then goes on to list ninety-eight such fishing grounds known to him. Among these are "Laeokukui, Ahupunui, Honokoa, Laepaki or Kealaikahiki", all of which relate to place names on Kaho'olawe. The only other names which appear familiar are "Kaule", possibly referring to Lae o ka Ule, and "Hau", which was the name of a long time resident of Kaho'olawe mentioned in the census of 1866.] "Your writer has fished in every one of these fishing grounds except two, Kakahino and Moeawa because of the great distance to reach them." (A.D. Kahaulelio, Ms. p.28; April 4, 1902) [In his discussion of certain of these fishing grounds, Kahaulelio speaks of "cliffs and mountains that are overgrown with trees that grow in the sea" (A.D. Kahaulelio, Ms. p.30; April 4, 1902), which echoes the description "Submarine forest", found on the 1886 map in the Hawaii State Survey Office (Reg. 1272, 4-20).]

"The fishing ground called Laepaki (Kealaikahiki) is five miles distant [another possible translation is "five miles further"; previous to this Kahaulelio has been speaking of fishing grounds which lie "From Launiupoko to Papawai Point"], from fifteen to twenty fathoms deep, that is the shallowest one. Three miles straight out, on the seaward side of Laepaki we used to fish. It is only fifteen fathoms deep. The sea floor and the fish swimming to and fro are plainly visible and that is one of the most productive of the three [deepsea] fishing grounds of Kahoolawe." (Kahaulelio 1902:30; April 4, 1902)

[the original Hawaiian reads; "a o kela koa lawai'a o Laepaki (Kealaikahiki) he mau mile 5 ka mamao, he 15 a 20 anana ka hohonu, a oia paha kahi papau loa holo pololei i kai, he ekolu mile ka mamao mawaho oia Laepaki a makou i lawa'ia ai, he 15 wale no anana ka hohonu, a he ikeia iho no ka papaku olalo, a me ka i'a i ka holoholo ae, a o ke pookela

ia o ka i'a o na koa lawai'a ekolu o Kahoolawe." (Hawaiian text, page 25)]

[The following pages of the manuscript the two long line fishing methods and list the types of fish caught in this manner. The best time of year for this type of fishing is October to March].

Line Fishing

Line Fishing for Squid with Cowry Shell Lure:

"Fishing for Squids with a Cowry Shell. ["Ka Lawaia le he'e"]---, This is one of the important methods of fishing in the olden times and now it is no longer done here in Lahaina. My grandparents were the first to practice it in Lahaina. They left Keoneoio, Honuaula, Maui, their birthplace five years after the Word of God had come to Hawaii [c.1825] and they made their home on this land of Lahaina, on the ahupuaa of Makila. It was because they were fishermen, and they traded and peddled fish for price; they gave fish in exchange for taro or pa'i-ai [hard poi] from the people of Lahaina." (Ms. p.30; April 4, 1902). [Kahaulelio goes on to describe the preparation of the squid hook, and the method of fishing involving it.] "The days that are good for going to sea to fish [for squid?] are the three Laau days for the fish took the bait continuously in all kinds of fishing; Akua too, for the fish had voracious appetites. They ate like supernatural beings: On Mohala the fish opened their mouths wide for food; On Mahealani the fish ate one after the other and on Olapau the fish stop eating. The sea around Kahoolawe has been fished in by your writer with his parents and grand parents." (A.D. Kahaulelio, Ms. p.32; April 18, 1902).

Pole and Line Fishing

Pole Fishing For Ulua (Crevalle):

"Kuikui and Pahoe Fishing for Ulua.-- The kuikui and the pahoe fishing for ulua fish are not alike. First, let me describe the kuikui method and after that is done the pahoe. Along the hilly and rocky coast of Kahoolawe, your writer has often fished on dark nights. My father accompanied me when I went to do kuikui fishing for ulua [certain species of the crevalle or jack]. We used a paka [?] eel for bait and took a stout wooden pole with a thick, three ply olona cord. When we reached the place where we were to fish, the pole was set up and the bait tossed in, the eel was pounded up in a small sea pool large enough to contain the bait. The wooden pole creaked and when my father grasped it his strength was unequal to the task until he held the pole in the center at the same time leaning backwards. He almost fell into the sea. A small ulua could be pulled ashore but a big one required a strong, thick line." (A.D. Kahaulelio, Ms. pp.64-65; May 16, 1902).

Pole Fishing For Uhu (Parrot Fish):

"Paeaea Fishing.--- There are seven divisions of this kind of pole fishing, six for the sea and one for the shore." (Ms. p.71, May 16, 1902). "(3) Paeaea fishing for uhu [parrot fish] was done on the beaches of Lanai and Kahoolawe where your writer practiced it with a pole used also for aku [bonito] fishing. Haukeuke, wana and ina sea urchins were used at [as?] bait, crushed and tossed in. When you had selected a good spot to fish in, bait your hook with the teeth of a haukeuke or wana or an ina then toss your line. It was fun as the bamboo pole bent in uhu fishing just as it did in aku fishing." (A.D. Kahaulelio, Ms. p.73, May 16, 1902).

Net Fishing"Lau Apoapo" Net Fishing:

"There were several types of lau [seine net] fishing, such as (1.) Lau lele, (2.) Lau kapalili, (3.) Lau apoapo, and these were done beyond the reef or where there were no reefs." (Ms p.2, Feb. 28, 1902)

"Lau Apoapo---- The fish caught in the lau apoapo fishing were the opule, omalemale, panuhunuha, maiii, kole pala and others. The apoapo fishing could be repeated three times by casting the net in the sea and when one looked at the canoe holding the fish he was delighted with their bright colors; the brightness of the eyes of the kole, the dark and light streaks of the opule. Many a time your writer fished in the lau apoapo from Kaanapali to Kealia, all around the island of Lanai and on the leeward side of Kahoolawe, from the canoe landing of Kanapou that is facing Makena and on to the point at Ke-ala-i-Kahiki where it dips into the sea." [Ms p.6; Feb. 28, 1902]

Net Fishing For Malolo (Flying Fish):

"The malolo [flying fish] were numerous at Kahoolawe which were sold at Lahaina for \$20 a canoe load. We remained away a few months and came back with more fish. On our homeward way the canoe was filled with bundles of hard poi (pa'i ai). That was how we earned the money for our livelihood." (A.D. Kahaulelio, Ms. p. 36; April 18, 1902). [Kahaulelio goes on to describe in detail the method of fishing for malolo using long nets set by canoes.]

Net Fishing For Weke (Goat Fish):

"Weke Fishing.--- The net used for weke [certain species of the Mullidae, surmullets or goatfish, usually found in reefs] was like that of the hoauau fishing at Lahaina, all around Lahaina and Kahoolawe, on the side facing Lahaina. Here your writer fished in this way and with fish hooks for over forty years. We know of but two kinds of weke, the weke-ula and the weke-aa. The weke ula lived in and out of holes in deep waters of ten fathoms more or less. Sometimes they were caught with the papa net especially when the sea

floor was good for the setting up of the net. If the place for the papa net was not good, then the long paloa net with meshes of two fingers width was employed. Fishing with the papa net was easier and required less work but with the paloa net it was a laborious task requiring much diving in drawing the ends of the net together. When a school of weke-ula or red weke was surrounded, a canoe was filled sometimes or half a canoe sometimes enough to earn a few dimes to buy mashed taro (pa'i kalo) such as they had in olden times." (A.D. Kahaulelio, Ms. p.69; May 16, 1902).

Shoreline Gathering

Gathering He'e (Squid):

"There is also the fishing for small squid (hee pali) along the beaches of Lahaina and Kahoolawe, the places where I used to fish. This isn't real fishing but as one went along by the rocky places on the shore, one is seen and pried loose with a knife or an iron spear. It is bitten into and eaten with a bit of sweet potato and is delicious." (A.D. Kahaulelio, Ms. pp.34-35; April 18, 1902).

Gathering Opihi (Limpets):

"The dark makaiauli opihis [limpets] were gathered by the children at the cliffs of Kahalo, Lanai, a place famed for its opihis. True, but for the big size they were not equal to those of Kanapou, Kahoolawe. Your writer is well acquainted with these places. For bigness, they do not compare to Kanapou's. It is at that large stream facing Honuauia [in Makena, Maui]. The opihi are as large as the bowls found in shops, not large ones, but the smaller ones. Goat meat could be boiled in opihi shells and the twenty-five cents worth of beef bought in Lahaina could be cooked entirely in the opihi shells of that locality, not the opihi dived for, but that which clung to the sea cliffs. Your writer was there for a week without vegetable food, living only on water, fish, opihi and goat meat. That is how I discovered that that was the place of large opihis. Much money is gained by selling opihis and Honolulu's people know the value of this food, for they get only a few times four (mau kauna) opihis in a saucer for the price of twenty five cents. In other places they are taken without price and if you wish to see those large opihis go there and see for yourself. Perhaps some doubt the truth of this statement, so it will be well for me to tell an old story of a certain man. He caused the largeness of the opihis of this place, so my grandparents told me. A certain man of Hawaii named Puuiaiki [his name translates as "hill of the little marine animal" and appears related to the folktale], left Kohala on his small canoe and midway between Alanuihaha channel his canoe was swamped by the billows and [he] could not make it move. He tried to float it, and failing, decided that it was better to swim to Kahoolawe. The wind blew him along and the

swimming was easy. As he swam, an opihi makaiiauli appeared before him. He said to himself, "What a strange opihi this is. It does not sink into the sea. What kind of thing is this and what does it mean?" Puuiaiki reached out and grasped it in his hand, as he asked repeatedly what it was about and what this opihi makaiiauli meant. O readers, in truth this was an opihi sent hither by the prophet ["makaula"] Moaula, and that is the little hill standing on Kahoolawe and that is the only mountain of that land. He was sorry for Puuiaiki and sent the opihi to rescue him. Let us leave the opihi and turn to look at Puuiaiki swimming in the sea. Soon after Puuiaiki had grasped the opihi, a shark came by with his mouth open wide. The upper jaw stretched up to the surface and the lower jaw reached down into the depths of the sea. Then Puuiaiki spoke, "If you bite me, I'll live. If you swallow me whole into your stomach, I'll die." Puuiaiki slipped into the mouth of the shark to its stomach with his opihi. There he scraped the flesh of the shark for three nights and three days. The shark landed at the bay of Kanapou on Kahoolawe and died. Out came Puuiaiki, with bald, shiny head and went up from the beach to where the akulikuli weeds crept over the sand. There he rested with pohuehue leaves shading his head. [This story motif of a man being swallowed by a shark and killing it from the inside is also encountered in the tale of Punia recounted in the Fornander Collection of Hawaiian Antiquities, Vol. 5, pp.294-301. Martha Beckwith, in her Hawaiian Mythology, relates that this motif, "that of destroying a monster by being swallowed whole and cutting the way out, is of worldwide distribution." (Beckwith, 1970, p.444). In the story of Kaulu, also found in the Fornander Collection (1916-19, Vol. 4, p.522-533 & Vol. 5, p.364-371), Kaulu's brother Kaeha emerges from a shark who has swallowed him with his hair all worn away.] Some fishermen saw him sitting there and decided to come take a look at him yet they were fearful, thinking that perhaps he was crazy. "Aloha," greeted the fishermen. "Aloha," he replied, "have you a little water?" "We have no water but there is a spring above here and if you wish we will lead you there." "yes," said Puuiaiki, "I will rest until I feel better and I'll go up." As the fishermen went back one said, "Say, what we should do is to kill him. If we do not destroy him then we ourselves will be destroyed for that is a demi-god (kupua). His name is Puuiaiki, but how are we to kill him? When he goes down to the spring then you pelt him with stones until they are piled up high beside the spring. Let us go to fetch Puuiaiki and ask him how he got here." Puuiaiki told them the story I have mentioned above. They were certain he was a kapua because the shark had not succeeded in destroying him. When they arrived at the spring, which your writer thinks is about four feet deep and nicely dug out, Puuiaiki went down to drink. As he drank he leaned down with his legs slanted upward. They began to stone him, but he kept on drinking until the spring was filled with

stones and heaped high above. Strangely, the next morning, when the people went there the spring was open and the stones on the side toward the upland, for in the meantime the prophet Moaula came to get him to go live with him. [This later section of the tale, in which Puuiaiki is buried by stones in the well at Kanapou, echoes the legend of the kupua Kalaepuni who was killed at the same place in the same manner. (Fornander, 1916-19, Vol. 5, pp.198-205). It appears likely that the story of Puuiaiki as told to Kahaulelio by his grandparents is a local or family folktale formed from elements taken from other, more widely known, stories.] The spring is open to this day. We got there as castaways in the year 1848 and drank the water of the spring of Puuiaiki's. If it were not for this spring we eight would have been corpses, six adults and two of us young boys, one thirteen and your writer who was then eleven. This is why the opihi of this place are so large and to make the idea of the size clear, they were as large as the poi bowls of Lahainaluna in the olden days and also at this time. Your writer had visited Kanapou twice and on other places of Kahoolawe the opihi were the same as everywhere else in the island group. If you wish to see the largeness of the opihi of that place, let J.K. Nahale buy a steam launch and come to get me. I'll take you to see the famous opihi of Puuiaiki." (A.D. Kahaulelio, Ms. pp.100-103; June 27, 1902).

Sources:

A.D. Kahaulelio's "He Mau Kuhikuhi No Ka Lawaia Ana" (Fishing Lore), was published in the Hawaiian language newspaper "Ka Nupepa Kuokoa" from February 28th 1902 to July 4th 1902. A typescript of the original text, as well as a translation into English by Mary Pukui, are preserved in the Hawaiian Ethnographic Notes Collection at the archives of the Bernice P. Bishop Museum. A.D. Kahaulelio was born c.1837, most probably in Lahaina on the island of Maui. His grandparents, as he tells us, "left Keoneoio, Honuaula, Maui, their birthplace five years after the Word of God had come to Hawaii and they made their home on this land of Lahaina, on the ahupuaa of Makila. It was because they were fishermen, and they traded and peddled fish for price; they gave fish in exchange for taro or pa'i-ai [hard poi] from the people of Lahaina." (Ms. p.150; April 14, 1902). Kahaulelio himself was a fisherman, as well as being tax collector for Maui for a time. "I have fished for sixteen years with my father and grandfather until all passed out of this life and for twenty-five years I have fished by myself. Now [1902] I have retired from the deep sea and inshore fishing taught me by my father." (Ms. p.1; February 28, 1902). "The sea all around Kahoolawe has been fished in by your writer with his parents and grandparents." (Ms. p.32; April 18, 1902).

1813

In 1813 John Jacob Astor's ship *Lark* drifted ashore on Kaho'olawe. The following is the text of a letter from Samuel H. Northrop, former captain of the *Lark*, to John Jacob Astor, dated March 1814, which recounts the loss of the vessel. The original of this letter is presently held among the Astor Papers at the Baker Library of the Harvard Graduate School of Business Administration. The use of the term "interlineated" means simply that a letter or word enclosed in brackets [] has been written in between the lines as an addition to the text.

Columbia River March 1814

John Jacob Astor Esqur.

Sir

it is with varey greate regret I inform you of the loss of the Ship *Lark*. - nothing for a space of time hapned more than frequwntley experencing Contrarey gales of wind whiche greatly retarted our passage, - but on the 13th of august 1813 in running down for the Sandwich Islands in Lattitude 21'.30' Longitude 150' East was unfortunately knock on our beam-ends, - at the time this unfortunate affair happned we weare Scudding under a closte reef Main Topsail & Foresail experencing hard gales of wind from the Eastward, the first mate being Sick and confinde to the cabbin I left the decks in Charge of the Second whilst I wasin the Cabbin Taking a cup of Tea, at about 5 P M at anungarded Moment of the helmsman we ware by a heavey Sea hove on our beam ends, the helm not So Spedily rited as required together with the inability of the offercer in Such Cases; the Ship was almost instantly keelout, being destitute of experinect offercers and a greate parte of the Crew young and unacquainted with any kind of Seaman Ship we ware in greate Confusin and disorder. - I however dismasted hir as soonas posible She then rited but full of water, the boats Swept from the Wreck all hatches & Scuttles tourn up - the Cargo being of a bouyant nature prevented the hull from Sinking, - it may not be improper to Mention that Such tophammer as usaly necessary tobe Sent down at Such times was taken down on the 10th of the month at the commencement of the gale and the greatest care taken to keep the Ship in t[interlineated: r]im, but notwithstanding She was always by [interlineated: the] head. - as it was wholly impractible wen we cut away the masts to observe the necessary procaution to cut the Lee rigging first we had all the Spars remaining by us Fore days, during which time the Ship lay in the t[rough] of aheavey Sea braking over us with greate violance, the Spars heaving too & fro wounded & brused us much whilst we Clung to the Stumps of the Masts and Boatsprite, - on the 17th or 5th day the wind abated and the Sea became Smooth So as to anable us to Cleare the wreck of the Spars guns anchors &c, and rigged a jurey foremast Suffishient to Set a Mizen Topsail theireon; with afew broaken Spars I formd asorte of Stage from the belfrey to the nite heads & where we kept out of the Sea, and by the Sandwich Islandsers diving into the Cabbin procured about half agill of wine p day and alittle indian meal, in this State we drifted down to the Islands and on the 29th of the month droave a shore on the weather Side of Tahoorowa all aforts being rendred useless, about 30 hours before She d[interlineated: r]ove ashore I Sent M^r. Marshall and one Seaman ashore to the Island of mooweat the first oppertunity to hire as many canoes

ascould be got in hopes of toeing hir to a harbour but no assistance
 Could be obtained, - avarey little of the Cargo nor aney part of the
 Ship was Saved that which was, was Taken by the king and plundered by
 the natives, we was here treated with greate inhumanity, Stript to
 ashirte & trowes unable to make aney resistance against somaney natives,
 with a crew almost helpless worn down with Starvation & thirte; - I
 here met with [interlineated: M^r.] Wilson P Hunt whith whom I am
 ingaged on Board the Brig Pedler, -
 A varey fine Brig Wall built and Sails well lately Baught on your
 account - I am Sir your Moste obt & Varey

humble Sirvant Sam. H Northrop

Names of those died and drowned are as follows viz
 M^r. Richard Maxey first mate died august 14th 1813
 Daniel Choss Seaman drowned in the Forcastle 13th
 Timothy Trowbridge was[interlineated: h]t from the wreck & drowned
 17
 William Granniss. Do.....Do..Do..17
 A Negro Man Ships Cook died august 24

[Addressed] John Jacob Astor Esq^r., New York-.

[Endorsed] Northrope March, 1814 [in pencil] giving acc^t of loss of the
 Lark.

In composing his account of the history of Astoria,
 Irving was granted access to all of Astor's personal papers.
 Among these was the above letter from Samuel H. Northrop,
 captain of the Lark, to Astor, detailing the events of the
 ship's sinking. This letter appears to have been the
 principle source for Irvings account of the wreck.
 Apparently, judging from what he says later on in his
 account, Irving also had at his disposal the original log of
 the voyage, the present location of which, if it still
 exists, is unknown.

Irving prefaced his record of the voyage of the Lark
 with the words; "The month of March arrived, and the Lark was
 ordered by Mr. Astor to put to sea. The officer who was to
 command her, shrunk from his engagement, and in the exigency
 of the moment, she was given in charge to Mr. Northrop
 [Samuel H. Northrop], the mate. Nr. Nicholas G. Ogden, a
 gentleman on whose talents and integrity the highest reliance
 could be placed, sailed as supercargo. The Lark put to sea
 in the beginning of March, 1813." (Irving 1836:II:431-432)

He goes on to state that; "The Lark sailed from New York
 on the 6th of March, 1813, and proceeded prosperously on her
 voyage, until within a few degrees of the Sandwich
 Islands.[Latitude 21' 30' north, longitude 150' west] Here a
 gale sprang up that soon blew with tremendous violence.[The
 storm struck on August 13th, 1813] The Lark was a staunch
 and noble ship, and for a time buffeted bravely with the
 storm. Unluckily, however, she "broached to," and was struck
 by a heavy sea, that hove her on her beam-ends. The helm,
 too, was knocked to leeward, all command of the vessel was
 lost, and another mountain wave completely overset her.

Orders were given to cut away the masts. In the hurry and confusion, the boats also were unfortunately cut adrift. The wreck then righted, but was a mere hulk, full of water, with a heavy sea washing over it, and all the hatches off. On mustering the crew, one man was missing, who was discovered below in the forecabin, drowned.

In cutting away the masts, it had been utterly impossible to observe the necessary precaution of commencing with the lee rigging, that being, from the position of the ship, completely under water. The masts and spars, therefore, being linked to the wreck by the shrouds and the rigging, remained alongside for four days. During all this time the ship lay rolling in the trough of the sea, the heavy surges breaking over her, and the spars heaving and banging to and fro, bruising the half drowned sailors that clung to the bowsprit and the stumps of the masts. The sufferings of these poor fellows were intolerable. They stood to their waists in water, in imminent peril of being washed off by every surge. In this position they dared not sleep, lest they should let go their hold and be swept away. The only dry place on the wreck was the bowsprit. Here they took turns to be tied on, for half an hour at a time, and in this way gained short snatches of sleep.

On the 14th, the first mate died at his post, and was swept off by the surges. On the 17th, two seamen, faint and exhausted, were washed overboard. The next wave threw their bodies back on the deck, where they remained, swashing backward and forward, ghastly objects to the almost perishing survivors. Mr. Ogden, the supercargo, who was at the bowsprit, called to the men nearest to the bodies, to fasten them to the wreck; as a last horrible resource in case of being driven to extremity by famine!

On the 17th the gale gradually subsided, and the sea became calm. The sailors now crawled feebly about the wreck, and began to relieve it from the main encumbrances. The spars were cleared away, the anchors and guns heaved overboard; the sprit-sail yard was rigged for a jury-mast, and a mizzen topsail set upon it. A sort of stage was made of a few broken spars, on which the crew were raised above the surface of the water, so as to be enabled to keep themselves dry, and to sleep comfortably. Still their sufferings from hunger and thirst were great; but there was a Sandwich Islander on board, an expert swimmer, who found his way into the cabin, and occasionally brought up a few bottles of wine and porter, and at length got into the rum, and secured a quarter cask of wine. A little raw pork was likewise procured, and dealt out with a sparing hand. The horrors of their situation were increased by the sight of numerous sharks prowling about the wreck, as if waiting for their prey. On the 24th, the cook, a black man, died, and was cast into the sea, when he was instantly seized on by these ravenous monsters.

They had been several days making slow headway under their scanty sail, when, on the 25th, they came in sight of

land. It was about fifteen leagues distant, and they remained two or more days drifting along in sight of it. On the 28th, they descried, to their great transport, a canoe approaching, managed by natives. They came alongside, and brought a most welcome supply of potatoes. They informed them that the land they had made was one of the Sandwich Islands. The second mate and one of the seamen went on shore in the canoe for water and provisions, and to procure aid from the islanders, in towing the wreck into a harbor.

Neither of the men returned, nor was any assistance sent from shore. The next day, ten or twelve canoes came alongside, but roamed round the wreck like so many sharks, and would render no aid in towing her to land.

The sea continued to break over the vessel with such violence, that it was impossible to stand at the helm without the assistance of lashings. The crew were now so worn down by famine and thirst, that the captain saw it would be impossible for them to withstand the breaking of the sea, when the ship should ground; he deemed the only chance for their lives, therefore, was to get to land in the canoes, and stand ready to receive and protect the wreck when she should drift to shore. Accordingly, they all got safe to land, but had scarcely touched the beach when they were surrounded by the natives, who stripped them almost naked. The name of this inhospitable island was Tahoorowa [Kaho'olawe].

In the course of the night, the wreck came drifting to the strand, with the surf thundering around her, and shortly afterwards bilged. On the following morning, numerous casks of provisions floated on shore. The natives staved them for the sake of the iron hoops, but would not allow the crew to help themselves to the contents, or to go on board the wreck.

As the crew were in want of everything, and as it might be a long time before any opportunity occurred for them to get away from these islands, Mr. Ogden, as soon as he could get a chance, made his way to the island of Owyhee [Hawai'i], and endeavored to make some arrangement with the king for the relief of his companions in misfortune.

The illustrious Tamaahmaah [Kamehameha], as we have shown on a former occasion, was a shrewd bargainer, and in the present instance proved himself an experienced wrecker. His negotiations with M'Dougal, and the other "Eris of the American Fur Company," had but little effect on the present circumstances, and he proceeded to avail himself of their misfortunes. He agreed to furnish the crew with provisions during their stay in his territories, and to return to them all their clothing that could be found, but he stipulated that the wreck should be abandoned to him as a waif cast by fortune on his shores. With these conditions Mr. Ogden was fain to comply. Upon this the great Tamaahmaah [Kamehameha] dispatched[?] his favorite, John Young, the tarpawlin governor of Owyhee [Hawai'i], to proceed with a number of the royal guards, and take possession of the wreck on behalf of the crown. This was done accordingly and the property and crew were removed to Owyhee. The royal bounty appears to

have been but scanty in its dispensations. The crew fared but meagerly; though, on reading the journal of the voyage, it is singular to find them, after all the hardships they had suffered, so sensitive about petty inconveniences, as to exclaim against the king as a "savage monster", for refusing them a "pot to cook in", and denying Mr. Ogden the use of a knife and fork which had been saved from the wreck.

Such was the unfortunate catastrophe of the *Lark*". (Irving 1836 II:235-239)

Although the location at which the *Lark* came ashore remains uncertain, we do possess evidence that it may have struck somewhere near the bay presently referred to as Papakaiki. Some time after his 1913 visit to Kaho'olawe, J.F.G. Stokes drafted a map of the island which showed his route of travel. On this map Papakaiki bay has been labeled "Lark B". This name has then been crossed off and the bay relabeled "?Papaka B." Stokes' notation would tend to suggest that the *Lark* ran aground in this area. Stokes' source for this information is, however, unknown.

The following are a collection of additional references to the wreck of the *Lark*.

"The *Lark* had been chartered by Mr. Astor and had left New York with provisions for our company [Astor's Pacific Fur Company]. But, unhappily, she had been struck by a furious storm and had capsized at about 16° North Latitude, some three hundred miles from the Sandwich Islands. The first mate, who was sick, drowned in his cabin and four other members of the crew perished at the same time. The captain immediately had the masts and rigging cut away; and this action righted the ship, though it was full of water.

One of the sailors dived into the cabin of the sailmaker and brought up a small sail that was attached to the bowsprit. He dived again and brought up a case containing a dozen bottles of wine. For thirteen days they had no other nourishment than a piece of shark meat they had the good luck to catch, and which they ate raw, and a gill of wine a day for each man to drink. Finally, the trade winds brought them to the Island of Tahouraha [the textual note reads "(Kauai?)", but it is obvious that the island referred to is Kaho'olawe], where the ship broke up on the rocks. The islanders saved the crew, and plundered all the goods that floated on the water. Mr. Hunt was then at Oahu. Some islanders from Molokai told him that there were some shipwrecked Americans at Kauai [probably Kaho'olawe]. Mr. Hunt went at once to get them, and gave over the command of his ship [the *Pedlar*] to Captain Northrup." (Franchère 1967:101-2)

"That gentleman [Mr. Hunt] had purchased at the Marquesas islands a brig called *The Pedlar*; it was on that vessel that he arrived [in Astoria], having for pilot Captain Northrop, formerly commander of the ship *Lark*. The latter vessel had been outfitted by Mr. Astor, and despatched from New York, in spite of the blockading squadron, with supplies for the *ci-devant* Pacific Fur Company; but unhappily she had

been assailed by a furious tempest and capsized in lat. 16° N., and three or four hundred miles from the Sandwich Islands. The mate, who was sick, was drowned in the cabin, and four of the crew perished at the same time. The captain had the masts and rigging cut away, which caused the vessel to right again, though full of water.

One of the hands dived down to the sail-maker's locker, and got out a small sail, which they attached to the bowsprit. He dived a second time, and brought up a box containing a dozen bottles of wine. For thirteen days they had no other sustenance but the fleash of a small shark, which they had the good fortune to take, and which they ate raw, and for drink, a gill of the wine each man *per diem*. At last the trade winds carried them upon the Island of *Tahouraka* [Kaho'olawe], where the vessel went to pieces on the reef. The islanders saved the crew, and siezed all the goods which floated on the water. Mr. Hunt was then at *Wahoo* [Oahu], and learned through some islanders from *Morotoi* [Molokai] that some Americans had been wrecked on the isle of *Tahouraka* [Kaho'olawe]. He went immediately to take them off, and gave the pilotage of his own vessel to Captain Northrop." (Franchère 1854:225-6)

Further mention of the Lark can be found in the journal of Georg Anton Schaffer, a Russian adventurer who arrived in Hawai'i in 1815 with grandiose schemes of acquiring the islands for the Tzar. When the unsuccessful Schaffer eventually departed the islands he did so aboard an American ship, the *Panther*. The mate of that vessel was a Mr. Marshal (or Merschel). Marshal is described by Schaffer as the nephew of John Jacob Astor. In his journal, Schaffer (who refers to Marshal as "the ship's officer") mentions something of their conversations.

"Nothing Noteworthy occurred during our voyage, except that I received from Mr. Marshal some valuable information about subjects very interesting for me. This man is a German, a nephew of Mr. Astor, who took him from Germany as a boy and taught him seamanship.

He was shipwrecked near the Sandwich Islands three years ago, and made a living by teaching the English language to Prince Liholiho, son of King Kamehameha, staying on in Hawaii for several years in this capacity. He was my daily companion throughout my stay in Hawaii. He left Hawaii last year to serve on the brig *Panther*. Being acquainted with the people who sailed on ships under his uncle Mr. Astor, and having a thorough knowledge of their nature and character, he told me openly of all the reascality committed by Ebbets and Hunt, who although servants of his uncle, had acted against the Russians in these islands." (Pierce 1965:206)

According to Richard A. Pierce, who translated Schaffer's journal, Marshal was "former second officer of Astor's ill-fated ship lark, wrecked off Kahoolawe in 1813". (Pierce 1965:23) Marshal's role on the Lark is not mentioned by Schaffer in his journal, and where Pierce acquired this information is uncertain. If Marshal was

indeed the vessel's second mate, he would have been one of the two men who left the ship in a native canoe in an attempt to obtain "water and provisions, and to procure aid from the islanders, in towing the wreck into a harbor." (Irving 1836:II)

It appears that the "Mr. Marshal" mentioned by Schaffer is the same man described by John Papa Ii in the following quote.

"It was the agents [of a ship at anchor in Honolulu harbor] who suggested that Liholiho learn English. They fostered the idea until a haole man was found to teach him. This man had landed at Kahoolawe some years before after a ship on which he had been the mate was wrecked at sea. With some other men from the ship, he managed to make a raft out of pieces of the mast, and this carried them to land, where two Hawaiians dove for fishes and obtained food for them to eat.

It is believed that the man chosen to be Liholiho's teacher was an American, for his ship, the 'Marshall', was from the United States. This good man lived with the heir to the kingdom for some time, and taught him some English words and how to write them. He [Liholiho?] used this knowledge to obtain bottles of rum from ships' captains. Apparently he wrote only for rum, nothing else." (Ii 1959:128).

Considering the similarities between the wreck of the Marshall, as recounted by Ii, and that of the Lark; one cannot help but wonder whether Ii simply confused the name of Liholiho's American tutor with the name of his ship.

Whether or not Schaffer's Mr. Marshal was the mate of the Lark, as Pierce suggests, or whether he simply invented his relation to Astor in order to impress the Russian, is impossible, at this time, to say. One would have to check the crew list of the Lark, if that still exists, to see if Marshal had sailed aboard her. It would also be advisable to see if there is any record, other than Ii's account, of a ship named the Marshall being wrecked in Hawaiian waters.

1840

The schooner *Keola* is lost at sea. Four passengers (two women and two lads) survived by swimming to Kaho'olawe. (Jarves 1843:280-2)

1841

Two small boats from the Wilkes Expedition (the *Leopard* and the *Greyhound* under the command of Midshipman May and Lieutenant Budd, respectively) are cast ashore on the western end of Kaho'olawe. Lieutenant Budd walks to the penal settlement of Kaulana, where there were at the time 15 convicts under chief Kenemoneha. The settlement consists of 8 huts and an unfinished adobe church. One or two other houses inhabited by old women are said to be located on the north end of the island. (Wilkes 1844:260-2) The full account of this wreck is given in Appendix P.

1848

A.D. Kahaulelio and seven companions are castaway on Kaho'olawe. Details of the wreck are given in his article "He Mau Kuhikuhi No Ka Lawaia Ana", published in the June

27th, 1902 issue of the Hawaiian language newspaper Ka Nupepa Kuokoa. "Your writer was there [Kanapou bay, Kaho'olawe] for a week without vegetable food, living only on water, fish, opihi and goat meat. That is how I discovered that that was the place of large opihis." "We got there as castaways in the year 1848 and drank the water of the spring of Puuiaiki's. If it were not for this spring we eight would have been corpses, six adults and two of us young boys, one thirteen and your writer who was then eleven." (this quote is taken from a manuscript translation by Mary Kawena Pukui held in the Bishop Museum Archives:100-103, June 27, 1902).

1850

In 1850 Edward Perkins and five companions visited Kaho'olawe in search of a wrecked vessel' "a California schooner [which] had been capsized off Lahaina, and every soul lost", and which was said to be carrying "a large quantity of specie on board". (Perkins 1854:158) The vessel was thought to have drifted ashore on Kaho'olawe. "...a few evenings previous a native who was out in his canoe had discovered a dark object like the hull of a vessel floating past him, which he was afraid to board, conjecturing it to be an ak'ua. Upon a cross-examination, he said it was drifting down the channel towards Kahul'awe, a barren island, opposite the southwest point of East Maui." (Perkins 1854:158) Perkin's party landed at a bay on the island's northeast coast, probably Hakioawa, and proceeded explored the northern end of the island. They found little more than "the top-gallant yard of a ship, with its sail, both in a dilapidated state", "the main boom of a schooner reposing quietly upon the rocks, where it had been thrown by the wave; also a small "hatch," and two canoe paddles, which had drifted upon these barren shores." (Perkins 1854:161) The full account of this adventure can be found in Perkin's book Na Motu or Reef Rovings in the South Seas. (Perkins 1854:158-168)

1870

"1870, Sept. 25 - Hawaiian schooner Marilda, Burill master, ran ashore on the eastern end of Kahoolawe and became a total loss. No lives lost." (Thrum 1882:41)

1906

In May, 1906 the ship Olga was wrecked on Kaho'olawe. (Pac. Coma. Advertiser May 17, 1906:10:c.3) "Government registers list the stranding of the four masted schooner Olga, 498 tons, at "Kahoolane", which probably should have read, Kahoolawe (Island) on May 25, 1906. A veteran of the California-Hawaii trade, the schooner was built by Hans Bendixsen at Eureka, California in 1889." (Gibb 1977:101). The Olga belonged to the Hawaiian Line of Packets owned by Williams, Dimond & Company of San Francisco, whose principle Honolulu Agents were H. Hackfeld & Company. This line of ships traded regularly between San Francisco and island ports, bringing general merchandise from San Francisco and returning loaded with sugar or other local products. (King 1950:III:71)

The ship appears to have run aground at a small bay "in the vicinity of the heiau" [probably Hakioawa bay]. (Judd 1916:123). In the notebooks of his 1913 visit to Kaho'olawe, J.F.G. Stokes recorded: "Feb 27. Went to crater overlooking N. cape, & thence to ? Hakioawa B. where 4 mst. Sch. Olga was wrecked. On S. side on low cliff was a reputed heiau which was meas. & photo. It was not an imposing heiau. About 150' to W. was a house lot of two platforms on which stood a house when the Olga went ashore. This house the capt. of the vessel is reputed to have set on fire to attract attention." (Stokes 1913:I:6, see Appendix W)

On a map of Kaho'olawe which appears to have been drawn some time around 1925 can be found the notation "wreck of the "Olga"", written in near the northern point of what is marked as "Hakioawa Bay". (the map is presently held at the Hawaii State Survey Office [Case 10, hole 50]) This notation would seem to suggest that the Olga was driven ashore at this promontory.

Further evidence that the Olga was cast ashore near Hakioawa can be found in an article entitled "Marooned On Barren Island", published in the August 28, 1910 edition of The Sunday Advertiser. The article relates the adventures of Kalua Kaaihue, an eighteen year old Hawaiian boy who was abandoned for three months alone on Kaho'olawe. The article relates that Kaaihue "left the ranch premises and moved over to Hakiawa, on the other side facing Makena, near where the schooner Olga went ashore some seven years ago. He built himself a shelter from the wreckage and, to attract the attention of passing craft, built watch fires and kept them burning day after day but, strange, neither passing fishing boats nor the people on the neighboring shores of Maui would come to his rescue. Those who saw his fires thought it belonged to some fisherman, who had gone ashore to cook his dinner." (The Sunday Advertiser 8/28/1910:1:c.4)

1916

"Two Japanese fishermen were marooned on Kaho'olawe island for 5 days last week, through the wrecking of their power sampan, during the kona storm of a week ago. They were rescued by other fishermen last Sunday. The men were from Maalaea, and had put into a small cove on the island to repair a leak in their boat. While there the wind drove their craft ashore and completely wrecked it." (Maui News 1/7/1916:6:c.2)

Appendix N

The Kaho'olawe Shark Image And 'Awa Cup

Documentation:

This image, and its accompanying cup, are first mentioned in a letter from Rev. William Richards, resident missionary at Lahaina from 1824-1838, to Jeremiah Evarts, Corresponding Secretary of the American Board of Commissioners for Foreign Missions in Boston. The Hawaiian Mission Children's Society Library possesses copies of these original letters as well as typescripts of the letters bound in a series of volumes entitles Missionary Letters.

"Lahaina Island of Maui
March 31st, 1827"

"At the time I wrote you Hoapili the governor of the island [Maui] was on a tour, in which he visited all the villages on the Island and in every village held a meeting for the purpose of proclaiming certain rules and regulations and encouraging the people to attend to religious instruction.

While he was going round this island, his wife Hoapiliwahine visited Tahoolawe and brought away the weatherbeaten idol which has for a number of years, been had in great veneration and received sacrifices of some sort or other from every native that passed the island." (Missionary Letters II:754a).

This image, like the wooden image found at Kamohio by J.F.G. Stokes in 1913, appears to have escaped the general burning of idols decreed by Liholiho in November of 1819 when he abolished the kapu system. (Kuykendall 1938:68) It seems likely, that because of their isolation, the temples of Kaho'olawe may have escaped the consequences of this eddict.

"Lahaina October 14th,
1828"

"My very dear Sir:

I have just engaged Capt. Smith of the Ship Hope, New Bedford, to take charge of a box of Hawaiian curiosities. I therefore send you the idols which were mentioned in a journal of mine some two or three years ago. The Tahoolawe god or god of the shark I do not send as it is too long to go into the box and is too much defaced and too rotten to send in any way which would occassion so much trouble as that of sending it open. The cup from which all his votaries drank

to his worship, you will find in the box. It is made of cocoa nut."

[Richards then goes on to discuss other curios sent in the box. He continues by saying;]

"If you think proper Sir, you will deposit all these in the Museum until called for.

These curiosities were all either presented to us by our friends or purchased with books.

We can procure any quantity of curiosities for books. The idols however are scarce, perhaps not a single one remains of any note. The feathered wreaths would also be very difficult to be obtained for money or any thing but love," (Missionary Letters III:728-9; Letter #144).

Nothing more is heard of the image after this time.

In 1895, the American Board of Commissioners for Foreign Missions (ABCFM) loaned the Bernice Pauahi Bishop Museum a collection of Pacific and Hawaiian artifacts, which included the awa cup sent to Boston by Rev. Richards. In 1896, the Charles R. Bishop Trust purchased the collection for the Bishop Museum.

"Inventory of Hawaiian and Micronesian Curios loaned by the American Board, Boston, to the Bernice Pauahi Bishop Museum, Honolulu, H.I., March 1895. (Eleven Sheets)

No.	How many articles	Full name and description	No. of case in which packed	Remarks	If injured in any way note particular	
"249	7768	1	1	Cocoanut Cup	9	

A notation concerning the cup was entered in the Ethnological Catalogue, held at the Anthropology Department of the Bishop Museum. It reads:

ACQUISITION NUMBER	DEPARTMENTAL NUMBER	SPECIMEN	LOCALITY	HOW ACQUIRED
" Ex 7768	1895.01	Awa cup of a kahuna	Hawaiian Islands	Kahoolawe P.

DATE RECEIVED.	FROM WHOM RECEIVED	ORIGINAL NUMBER	REMARKS
1895	A.B.C.F.M. of Boston. Exch. Berne M.	249.	Mr. Wm Richards. Kahoolawe. Kahuna shape; in this every chief or person of importance who visited Kahoolawe drank awa to the god of that island as it was supposed that any one not doing so would be destroyed by a shark on his return; cracked."

The following is a copy of the artifact card presently on file at the Anthropology Department of the Bishop Museum.

"7768

Kahuna awa cup

Received

1895

Exch. BP-3787

Berne M.

1903

Small coconut cut lengthwise; in this every chief or person of distinction who visited Kahoolawe drank awa to the god of that island as it was Apr. believed that anyone not doing so would be destroyed by a shark on his return; cracked; sent by Mr. Wm Richards to the A.B.C.F.M. from whom it was purchased 249."

On April 3rd, 1903, the awa cup was sent, as part of a collection of Hawaiian artifacts, to the Historical Museum at Berne, Switzerland, in exchange for "a collection of lacustrine implements" which the Bishop Museum apparently received back in 1901. Documents in the Bishop Museum files (Anthro. Dept. files, Exchanges, BP Series, Invoice No. BP-3787) include:

"LIST of SPECIMENS from the Hawaiian Islands, sent to the HISTORICAL MUSEUM at BERNE, Switzerland."

Catalogue No.

7768

Awa cup of a kahuna.

IN EXCHANGE for a COLLECTION of LACUSTRINE [Swiss Lake Dwellers] IMPLEMENTS [BM No 5880] received through Mr. PAUL HOFER, of KAUI [Kekaha], H.I."

An accession form on file in the Anthropology Department indicates that on March 13, 1901, the Museum received as an exchange from Paul Hoffer "tools from prehistoric Swiss site", catalogue number 5880, accession number 1901.06.

Chronology:

- 1827 - Hoapiliwahine removes image and cup from Kaho'olawe.
- 1828 - Rev. Richards sends cup to ABCFM in Boston.
- 1895 - The cup is loaned, and then sold, to the Bishop Museum.
- 1903 - The cup is exchanged to the Historical Museum of Berne, Switzerland.

Description:**The Image:**

"The Tahoolawe god or god of the shark"; a "weatherbeaten idol which has for a number of years, been had in great veneration and received sacrifices of some sort or other from every native that passed the island." It is "much defaced and too rotten".

The Cup:

A "Small coconut cut lengthwise"; "Kahuna shape", "cracked". "The cup from which all his [the god of the shark's] votaries drank to his worship". "In this every chief or person of distinction who visited Kahoolawe drank awa to the god of that island as it was believed that anyone not doing so would be destroyed by a shark on his return."

Appendix O

The Punahou Image

A suggestion has been made by Adrienne Kaeppler that the "god of the shark" taken from Kaho'olawe by Hoapiliwahine in 1827 may be a wooden image formerly held by Punahou School and now in the collection of the Bishop Museum. To quote from her letter of February 21st, 1992;

"Concerning the "lost" Kaho'olawe image belonging at one time to Richards, I suggest (by process of elimination, size, style, and other unsupported means) that it might be BM 1364 (Cox and Davenport T 22). It was once part of the collection at Punahou (see attached) a good missionary stronghold. Is it possible that there might be some documentation as to where they got it?"

She includes with this letter a xerox of a page from Nelson Foster's book Punahou (Foster 1991:127), which shows a photograph of the image as well as other artifacts entitled, "Idols etc. formerly at Punahou," taken circa 1900 by an unidentified photographer. This photograph is in the Punahou School Archives. Foster goes on to say that, "Until 1900, Punahou had a "museum" consisting of a large, glass-fronted cabinet in Old School Hall. There these and other Pacific "curiosities" were exhibited for the edification of students and campus visitors. The wooden figure in the foreground may be the Hawaiian image found by students in a cave on Rocky Hill, a vestige of the heiau that once stood in that area. The scowling war-god Kuka'ilimoku, donated by Rev. Alonzo Chapin in 1860, was the most important artifact in the collection and, like the rest of the collection, passed to Bishop Museum soon after its establishment." (Foster 1991:127).

The Punahou image is listed on page 35 of the Bishop Museum's Ethnological Catalogue, presently on file in the Anthropology Department. The entry reads;

<u>ACQUISITION NUMBER</u>	<u>DEPARTMENTAL NUMBER</u>	<u>SPECIMEN</u>	<u>LOCALITY</u>	<u>HOW ACQUIRED</u>
33-10-A-2	1364	Akua of chia wood	Hawaiian Islands	

<u>DATE RECEIVED.</u>	<u>FROM WHOM RECEIVED</u>	<u>ORIGINAL NUMBER</u>	<u>REMARKS</u>
	Trustees of Oahu College		Much decayed. Presented by the Trustees of Oahu College. 42 inches high. very crude.

The following is a copy of the artifact card presently on file at the Anthropology Department of the Bishop Museum.

"1364

A

Received

Idol. Akua.

T22 Of ohia wood; much decayed;

Presented by the Trustees of

Oahu College. 42 inches high.

Very crude.

Hawaiian Ids.

Room 33

Given by G-Trustees of Oahu College

Case 10-8-5 7/75

Native name Akua

photo 783

19248-9,10,11

No accession number could be found for this artifact.

Appendix P

The U.S. Exploring Expedition And Kaho'olawe

The United States Exploring Expedition, under the command of Captain Charles Wilkes, circumnavigated the globe in the years 1838 to 1842. In September of 1840 the vessels of the Expedition fleet dropped anchored in Hawaiian waters. Wilkes' flagship the *Vincennes* remained in Hawai'i until April 1841, exploring and mapping the various islands of the Hawaiian chain. In the last few months of their stay, the man of the Exploring Expedition visited Lahaina, Maui, then residence of the reigning monarch, Kamehameha III. In addition to mapping the Lahaina roadstead which was, at that time, one of the busiest whaling ports in the Pacific, Wilkes sent two of the Expedition's small (c. 30 foot, single masted) survey launches to chart the rocks and shoals lying off the western end of the island of Kaho'olawe. Lae o Kealaikahiki, once an important landfall for Polynesian voyagers sailing to and from Kahiki, was now considered a navigational hazard, for its surrounding shoals posed a danger to ships approaching Lahaina from the Kona coast. To accomplish the task of charting these waters, Wilkes dispatched Lieutenant Budd and Passed Midshipman William May in the survey boats *Greyhound* and *Leopard*. The loss of the *Leopard* off Kaho'olawe, and Lt. Budd's subsequent adventures on the island are recounted in Wilkes' official narrative of the voyage (Wilkes 1845, Vol. IV: 244-45, 256-58).

"On our way [from Wailuku to Lahaina] I heard a rumour that one of the boats had been lost, which made me anxious to get on board as soon as possible. I had been flattering myself that from dangers of this kind we were, at least for the present, exempt; but the report proved too true. Previous to leaving Lahaina, I had dispatched Lieutenant Budd, with Passed Midshipman May, in charge of two boats, and it was to one of these that the accident occurred. Lieutenant Budd gave the following account of it.

At ten o'clock, on the 9th of March, they left the ship, when it was blowing a moderate breeze, and steered for the south point of Kahoolawe. After they had proceeded some distance on their way, it fell calm for a short time, and then the trade-winds set in strong from the northward and eastward, and soon increased to a stiff gale, the sea rising to a dangerous height for the boats. Just after doubling the point of Kahoolawe, Passed Midshipman May, in the *Leopard*, hailed Lieutenant Budd, to report that his boat was sinking; and four of the men were perceived to be bailing. Lieutenant Budd pulled alongside, and seeing the boat was settling, ordered the anchor to be dropped. Most of the crew continued to bail with their hats, whilst the rest passed out the most

important articles. A portion of the Leopard's crew, who could not swim, were now ordered to get into the Greyhound; Lieutenant Budd intending to land them and return for those on the wreck. The men who were thus left said that the boat was drifting to sea, and wished to be taken off; but this would have endangered the lives of all. Passed Midshipman May, perceiving their unwillingness to remain, jumped overboard and joined them: his example encouraged them to do their best. Lieutenant Budd succeeded in as short a time as possible in landing the men and articles from his boat, and then returned. He found the boat sinking fast, and the officer and men supporting themselves with the oars. The boat was now turning over and over as every wave struck her. Mr. May and the rest of the men were taken on board, and they then returned to the shore, all much exhausted. Lieutenant Budd, seeing that the side of the boat had been stove in by a heavy sea, and the impossibility of saving or being able to repair the boat, left her to her fate, and took such measures as he found necessary for the comfort of his men. Lieutenant Budd deserves much credit for his presence of mind in preserving the lives of the men entrusted to him, as well as protecting them afterwards from unnecessary exposure.

Kahoolawe, the island they were now on, lies to the west of the south end of Maui, and is fourteen miles long by five miles wide. It is uninhabited except by a few poor fishermen, and is used as a place of exile; at this time, there was one state prisoner confined on it.

Lieutenant Budd concluded next morning to set out in search of the town which he had heard one of his boat's crew, a Kanaka, say that he knew of. After wandering over the rugged face of this barren island for twenty miles, he discovered, to his great joy, from the top of a ridge, a cluster of huts near the water, which they soon after reached. They proved to be inhabited by Kenemoneha, the exile above spoken of, who for the crime of forgery had been condemned to spend five years in exile upon this island. This was effected in a singular manner, and the punishment of the offender will serve to show the mode in which the laws are carried into execution.

The chief, Kenemoneha, treated Lieutenant Budd with great kindness, supplied him with dry clothing, and gave him some of his scanty fare. The village is a collection of eight huts, and an unfinished adobe church. The chief has three large canoes for his use.

In passing over the island, the walking had been found very tedious for they sank ankle-deep at each step. The whole south part is covered with a light soil, composed of decomposed lava; and is destitute of vegetation, except a few stunted shrubs.

On the northern side of the island, there is a better soil, of a reddish colour, which is in places susceptible of cultivation. Many tracks of wild hogs were seen, but only one of the animals was met with.

The wife of Kenemoneha resides at Lahaina. She was a great favourite of the king, who, notwithstanding, was determined to let the law take its course, being well satisfied of her husband's guilt.

The only article produced on the island is the sweet-potato, and but a small quantity of these. All the inhabitants are convicts, and receive their food from Maui: their number at present is about fifteen.

Besides this little cluster of convicts' huts, there are one or two houses on the north end, inhabited by old women. Some of the convicts are allowed to visit the other islands, but not to remain.

On hearing of the accident, Lieutenant Carr at once despatched provisions for the party; which reached them the next day, and proved a seasonable supply. After much fatigue, Lieutenant Budd returned to the ship on the 15th." (Wilkes 1845:IV:244-45)

The castaways appear, by this account, to have been seven days on the island. The loss of the *Leopard* has, in historic perspective, proved a fortuitous accident, for it has provided us with our only first hand account of the penal settlement which formerly existed on Kaho'olawe. This, of course, seems little consolation to offer Midshipman May and his half drowned sailors.

Following the loss of the "Leopard" and her crew's eventual rescue from Kaho'olawe, Lieutenant Budd returned to the waters off the island to complete his task of surveying Kuia shoal. Captain Wilkes' narrative records his second, and successful attempt.

"It has been mentioned, that on our passage from Hilo we had not found the shoal said to exist off Kahoolawe. ["At midnight, being nearly up with Kahoolawe, we hove-to, to await daylight, as I wished to look for a shoal that was supposed to exist off its southern end. I passed within two and a half miles of that point, and had nothing less than seven and a quarter fathoms water." (Wilkes 1845, Vol. IV:236)] Receiving authentic information that it really existed, I determined to send two boats, under the command of Lieutenant Budd and Passed Midshipman May, to seek for and examine it. The king, learning my intentions, volunteered to send his yacht along with them. The yacht and boats set out on this expedition, on the 17th of March, with a pilot who knew the ground.

On the same day we took leave of our kind friends, and at noon got under way and stood for Kahoolawe, to pick up the boats under Lieutenant Budd. Owing to the light wind, we did not succeed in reaching the point till late, where we found the king's schooner and the two boats about to enter upon the examination. We, therefore, lowered all the boats and sent them to search for the shoal. It was soon found, and proved to be much nearer the point of the island than was anticipated. It lies a mile and a half off the point, and has one and a half fathoms of water on it. We fixed bearings, by noting which, it may be avoided. Vessels may

pass within two miles of the point with safety; but as it is difficult to estimate the distance, it will be better to pass the point at three miles distance, as nothing is lost by so doing. It is remarkable, that this is the only shoal around the Hawaiian Islands that is hidden from the navigator; and even this is situated so near the land that it can scarcely be deemed dangerous.

At nine o'clock, we took up the boats and bore away for Oahu." (Wilkes 1845, Vol. IV:257-58)

In a later portion of his narrative, in which he describes the general nature of the Hawaiian people, Captain Wilkes relates an anecdote which sheds light on the way in which the native inhabitants of Kaho'olawe looked upon their island home.

"They [the Hawaiian people] appear to me to be wanting in that national pride which was found a predominant trait in the groups we had previously visited. They speak less of their country than other Polynesians; but Mr. Richards and Dr. Judd both assured me that they felt a certain degree of pride in their respective islands. As an instance of this, it was stated to me that the government proposing to make the island of Kahoolawe a place for convicts, wished to induce the people of the island to quit it; but no persuasion could prevail on them to do so; and it is said that this feeling has existed to such an extent there, that the young women have refused to marry, unless under a pledge that they shall not be required to remove." (Wilkes 1845, Vol. IV:256-57)

Captain Wilkes was not the only member of the U.S. Exploring Expedition to set down on paper the events of the voyage. Among the numerous narratives recounting these adventures are two which concern themselves with the circumstances surrounding the loss of the *Leopard*. Lights and Shadows of Sailor Life, by Joseph Clark, mentions the incident only briefly, remarking that:

"During our stay here [Lahaina], the surveys were commenced as usual. On one of these excursions the *Leopard* was lost; the crew were rescued, though they very narrowly escaped a watery grave." (Clark 1847:210)

Lieutenant George Colvocoresses' Four Years in the Government Exploring Expedition, goes in to greater detail, describing the island of Kaho'olawe itself (incorrectly spelled Kaloolawe).

"On the morning of the 5th of February we got underway, and shaped our course for Maui.

The following day, at 2:45 P.M., the Island of Kaloolawe bore west northwest. This is a small, barren island, and used by the Hawaiian Government as a place of exile for convicts, who depend on rain-water for drink, and glean a scanty subsistence from potatoes, which they manage to raise on one or two fertile patches." (Colvocoresses 1855:215)

Later he relates the loss of the survey boats.

"March 13th. This afternoon Mr. May and his boat's crew returned in canoes paddled by natives, the boat having gone

to pieces at sea the same day he left the ship. It was very fortunate that Mr. Budd was near at hand with his boat. Seeing their situation, he immediately paddled up to them, and conveyed the crew ashore. He then returned to the wreck for the instruments and Mr. May, who he found had drifted, in the meantime, two or three miles out to sea.

After landing, they walked some twenty miles before they reached the settlement, where they were hospitably entertained by the chief, and furnished with canoes to bring them back to the ship. Mr. May might have gone ashore with the men, but he generously declined to leave the wreck until the crew was taken off first.

In the evening Mr. Budd arrived with the instruments: he stated that bad weather had prevented him from carrying out the instructions, in regard to the survey entrusted to his charge.

March 15th. At an early hour this morning, Mr. Budd and Mr. Sanford left with two boats to join the king's schooner, the use of which his Majesty had offered to Captain Wilkes until the shoal off Kaloolawe could be surveyed." (Colvocoresses 1855:221)

"About noon [March 16th] we got underway, and stood over towards Kaloolawe under sail. We "lay to" during the greater part of the night.

March 17th. At daylight wore ship, and stood in for Kaloolawe, and soon after fell in with the king's schooner. As she had not yet completed her surveying duties, we called away all our boats and sent them to assist her. About 9 A.M., the boats returned and we filled away and stood for Oahoo, while the king's schooner stood back for Maui.

The shoal here alluded to is situated about two miles from the shore, has two fathoms of water on it, at low tide, and is composed of a number of rocks, all within the circumference of three hundred feet. Ships passing through the channel between Hawaii and Maui, intending to anchor in Lahaina Roads, must give Kahoolawe a wide berth, and steer for the peak of Lanai until the High-school of Lahaina bears to the eastward of east northeast, when they may haul in, and steer directly for it." (Colvocoresses 1855:222)

Appendix Q

Paul Nahaolelua
and Ioane Richardson's
1857 Survey of Kaho'olawe

Lahaina Maui
September 7th 1857

Mea Kiihi

L. Kamehameha

Aloha oo

Elite me Kaiपालपाल, Kalalo.
Noyonabawih nei no Kahale ana o mona ia
Kahoolawe, ke pili ma nei ke Kope oia pala-
-pala iho ailonawia A.

Ke kai aku nei me wai a ee wa holo
aku nei maui i Kahoolawe i Kalalo. Keia
malama ka hualale ana i ka Mokupuni
Maui, a holo aku la i Kahoolawe, a i Ka-
la 4 iho nei pae hou i Maui nei mai Ka-
hoolawe mai.

Ke ano o ka mawa hana ana, ame
ke ano o ka aina, aolo maui i ona maoli i
ka Mokupuni, Kahoolawe e maopopo loa ai
ka nui o na Eka ma ia Mokupuni. Aka
hoi ma ka mawa ana a ma kekahi mau
hoomaopopo ana, ke Kanaka paha na nui,
Kuea oia Mokupuni, a i oia ua Koko Kono
ia helu ana, Aina ke Kanaka na mile Kuea
oia Mokupuni, a ma ka mile Kuea hookehi
hoi eono hane i Kanaka Eka, alaile 40 x
640 = 35,600 Eka) a iwa ma ka ulu i na Eka
a pae loa, ua kupa paha eua koineta ka aku

Ka uku hoolimalima no ka Eka hoolakahi i ka
Matakahi hoolakahi a penii ka nui ona dala
e loaa mai \$5.610 x 2 - \$112.00 i ka Matakahi
hoolakahi.

Aka, ina e hoolimalima iama kahi
i waiwai wale, i ko mawa manaa, i umi
kinita ka uku hoolimalima no ka Eka maitai
hoolakahi i ka Matakahi hoolakahi ua lile
paha me ekolu tautani Eka maitai mauti
o ku ahui o kahi i ite ia i mawa i ka hele
ana e nana. Hoolakahi paha tautani
Kafuu ai ke kiki o kona ku ahui maluna o
Ka ili o ka Kai.

Ka waiwai kaholawe aole wai
maoli malaila, lilo mai nana ka maa
i ka maa, a ua ua loa kahi wai ma
limana kiki lili aole nana mau loa ia
mau wai hiki mai ka mawa ala emalo
koke.

Ka wai Kai aole nui na wahi
e loa ai na wai Kai maia Motupuni
Hoolakahi wale no wahi wai Kai i waiho ma
kahi kufono a mawa i ite ai, aia ma kahi
awa o Ahupu, aia i ka araa Komohana
Aka aia Motupuni ia wai Kai

Aua hoi mai hoi na Kamaaina
 ia mawa aia kekahi wai kai ma ka
 Hikiina Hema oia Mokupuni aia ma ka
 ino malalo. Ka Fali oia ka hi i Kapaia.
 Waikaaalulu aia hoi kekahi wai kai i ka
 arao Hikiina oia Mokupuni aia ma
 Kanapiou ka punaw aia i maha aia. Kaba
 puni i ka pepuhi ia

Oia i wale no na wahi iholu i ke
 ia ka loaa i ka wai ka oia Kapaia
 Name a ulu ana ma ka haka
 aia ma ka hi i Kapaia. Kukeia he mawa
 me a i Kanuia oia Kamaaina. He la au
 Ohai. manahe 24 Kapu aia ke Kiki e ka
 pu aia ke anapuni e ulu ana no hoi malalo
 he Baka. Hala ka hiki. La au ka e ifu
 awaawa. Amaka hoi o Kuahiri u a i ke
 mawa he malalo e ulu ana malalo.
 Kahi awaawa aia ana ma aia i kekahi
 ke Ula, 6/8 Kapu aia Kona Kiki e 3/4 Inika
 ke anapuni

Aua olelo mai na Kamaaina
 he ulu no ka Kala maoli ke Kanuia ma
 Kuahiri i ka wai Kupu. Olelo mai ka
 he Kala maikai a nuni hoi ka hua

Ma mau ulu ana ma ka
 kai o ke Kalamala a me ke Pili o ke Hale
 na Mau nui a me kekahi mau mea e ae

Kepono i ka ulu ma na Kahakai ma
a me Kekahi wahi mau hua ooi i ka wa
ulu ma ai ai ma na Kula Kokohe i ke Kahai
Kai i Kapai he Ume alu i Am a ka mauna
hoi o ke Kalama no ka mauna nui, a he
Pili aho Hale no kekahi a ma kekahi mau
wahi o Kuahini i ulu ana no ka mau
Kula Kokohe, a ma laka i ka ma Kuahini ka
maun Kikania ai a ka Lio, a he pualele
Kakaitahi hoi

Aa laau ma Kuahini, aole mau
laau nui ma Kuahini, e ulu ana ma
laau aho, haaha, aole ai ae mauna.
A Kapai ai ke Kiki, a he mau laau a alii
lilii a Kakaitahi no hoi, a me na ili ahi lilii,
a he mau wahi laau lilii ma e ae kekahi
he Kakaitahi a ma ke Kula hoi, he laau
wiliwili lilii a he Kakaitahi no.

Ke auo o Kahakai ma ka au
kau, a me ka auo Komohana, o ka Moku
puni he lehu no na auo Kahi e pa
ai na waapa, a me na waapa, a na
hiki no ke ku ma moku lilii ma kekahi
mau auo i ka wa ma ali,

O ka auo Hema, a me ka auo
Hikina, o ka Moku, he nui ka Palime
Kahakai.

Kepono o ka ulu o ka auo ma
ka mea auo a Fahrenheit Thermometer,
ma Kahakai. Feb. 1. th hore 12 auo

88 Ka helu o ka hoailona wela, Itehi 2. ed
 ma Kahakasi no hora 6 Kakahe'aka 75 Ka
 Helu, hora 6 ahi'ahi 77 Ka Helu, m aluma
 . Ka m auna; Itehi 2. ed. hora 12 au'ate
 79 Ka Helu.

Ua h ai mai hoi na Kama
 -ama he ua n aulu no ma Kahoolawe i
 Kakahe'aka maunawa, aia i Kawae'apa
 mai, aia i ka Makani Hoolua.

Ka h ana Kupono m alaila,
 aole o m aua m anas ua Kupono ka h ana
 bifi ma Kahoolawe, aole e ola na bifi
 no ka wai ole, a me ka uuku o ke Kaha
 ma ka m auna. Ke m anas nei m aua e
 ola no na hifi o ke m alama ia m auka.
 Ka m auna a i na ka o ka Hoolohona i Ku
 fono lo o m aua wahi a p aua i Kela Motu
 funi.

Ke pae Kanaka iawae no Kaka
 he e noko, ana ma Kahoolawe, aole p ahe
 oi aku m aua o ka unu'um a alina ke
 hui ia ma, kene na wahi na Kahi.

A h olu pae Kanaka iawae i
 hoike mai ia m aua i ko l akou m anas
 he m ake m ake ko l akou e ku ai i m au
 Eka aina no l akou ma Kahakai i Kona
 Kolu Eka, ke ae mai ke au'uni, e ku ai
 me l akou i hoo'ahi h apalua dala no
 ka Eka hoo'ahi.

Mr Ka Michalski

P. W. Michalski

Spence Richardson

1000 ...

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TRANSLATION:

Lahaina, Maui, December 7th, 1857.

His Highness L. KAMEHAMEHA,

Love to you.

Pursuant to your letter of the 1st day of November just past, about going to inspect Kahoolawe,- a copy of which letter is hereto attached, and marked A.,-

We wish to report: That we went to Kahoolawe, that we left the Island of Maui on the 1st day of this month, and went to Kahoolawe, and on the 4th inst., we again arrived here on Maui from Kahoolawe.

What we did and the nature of the land. We did not make any real survey of the Island of Kahoolawe so as to know the exact number of acres of that Island. But, from observation and study, there is about forty square miles in the Island, and if not that, it is near that. And if it is forty square miles in said Island, and a square mile is six hundred and forty acres, then $40 \times 640 = 25,600$ Acres,) and if payment be made for the whole acreage,- the reasonable rent should be two cents per acre per annum, then the amount of money that would be received, $25,600 \times 2 = \$512.00$ per annum.

Translated by
F. J. ...

But, if the lease is only on the good part, according to our belief, the rent ought to be ten cents per good acre per annum; there is about three thousand acres of good land, mauka in the mountain which we saw when we made the inspection. Its

mountains are about one thousand feet high above sea level.

The water on Kahoolawe: There is no fresh water there. but, the old residents stated that during the rainy times fresh water may be found in small pools, but these waters did not last, when the sunny times came they soon dried up.

Brackish water: There are not many places on this Island where brackish water may be found. There is only one brackish water which is accessible seen by us, at Ahupu harbor, this brackish water being on the North West of said Island.

And the old residents informed us, that there is another brackish water on the South East side of said Island, it is in a bad place under the cliff at a place called Waikaalulu, another brackish water is at the East side of said Island, at Kanapou, the well where Kalaepuni was murdered.

These are the only three places known where brackish water may be found on Kahoolawe.

These things are growing at the seashore; at place called ~~Kahueia~~ ^{Kahueia}, things planted by the old residents. An ohai tree of Mana, 24 feet high and 2 feet in circumference, there is also growing there tobacco, pineapple, laau kau, calabash gourd vine, and mauka in the mountains we saw a sugar-cane patch in a gulch, and we measured some of the ^{red} sugar-cane and 6 1/2 feet, and the height/was 5 3/4 inches in circumference.

The old residents said that sweet potatoes will grow on the mountain if planted at the right time, they said that the potatoes were good and the tubers were large.

The grass growing at the seashore are the kalamalo and the grass for thatching houses which grow plentiful there,

and other things that properly grow on the dry seashores, and some weeds with thorns, which grow during the rainy seasons on the kula near the seashore and called unealu (Fox - tail.) On the mountains, the kalamalo is the grass that grows most, and there was also some grass for thatching houses, and in some places of the mountains, the kukaepuaa grass was also growing, and there was quite a spread of kikania horse feed, and a few pualele (sow-thistle.)

Of the trees on the mountains, there are no large trees on the mountains, there are growing akoko trees, low, not more than 4 feet high, and there are some small aalii trees, very few, and small sandal wood, and there are some other small trees, a few, and on the kula some small wiliwili trees, and they are few.

Concerning the seashore, on the North side and the West side of the Island are a number of harbors where boats may land, and also canoes, and some small vessels can anchor in some of the harbors in good weather.

The South side and the East side of the Island have a great number of precipices along the seashore.

The condition of the weather according to Fahrenheit's Thermometer, at seashore, Dec. 1st, 12 o'clock NOON, the mark of the heat was 88,- Dec. 2nd, 6 o'clock in the morning, 75 was the number, 6 o'clock in the evening, 77 was the number, on the mountain, Dec. 2nd, 12 o'clock NOON, 79 was the number.

The old residents stated that there were naulu rains (rains without clouds) sometimes on Kahoolawe, when, the trade winds blow.

What the place is suitable for; we do not believe that cattle raising on Kahoolawe would be advisable, the cattle will not live because there is no water, and the lack of dew on the mountain. We believe that sheep will thrive if kept on the mountain, and goats are what would be really proper on all parts of that Island. There are some fishermen living on Kahoolawe, maybe not over fifteen, if the men, women and children are combined.

Three of these people intimated their desire to purchase some acres of land for them on the seashore, thirty acres, if the Government consents to sell to them for half a dollar an acre.

With thanks,

P. MAHAOLELUA.

ICANE RICHARDSON.

Appendix R

William F. Allen's
1858 Survey
of Kaho'olawe

Appendix S

The 1866 Census
of Kaho'olawe

they are all very wild, one cannot get within gun shot of them, the Goats and Hogs are killed by Dogs.

I should recommend that the House be built on the top near the mound, and that it be shingled; that a cistern be sunk for water. The material would have to be packed up from the beach, I should think Donkeys would be the cheapest and best animal for this purpose.

There are especially two kinds of Grass which abound, both of which are very coarse, there is also a shrub called Acooc which is filled with a milky juice of which sheep are very fond, and it answers for both food and drink for them. The Acooc and a shrubby (sic) tree called Widae Widae are all the approach to trees on the Island. The Prickly Pear grows here, and a very small shrub a species of milk weed.

The Birds which frequent the Island are Plover, Pigeons, & Owls, there are a good many Pigeons, and I should think in the season there were a good many Plover.

I should think the best way to exterminate the Dogs, is to move your sheep over after building a good pen, and pen them every night, this will attract the Dogs, and I would then strew about the pen poisoned meat. In this I think they might be killed.

I found on the Island about fifty Natives men, women and Children the men are engaged in fishing which is very good there most of the year, as there are several kind which frequent the sea about the Island. These natives do not live here all the year, but are here most of the time except during the rainy season, their food (Poi) they bring from Maui after disposing of their Fish in Lahaina.

There are Houses along the South West or Lahaina side of the Island at three different locations about five miles apart These Natives are anxious to be employed as shepards.

From the examination I have made, and from the information I have obtained I am of opinion that the sheep will not suffer for water, and the shrubs and some of the grass is very well adapted for sheep, and the feed will improve. Of the number of sheep the Island will sustain no accurate opinion can be formed. Mr Forbert who has been all over the Island thinks there is ample pasturage for 20,000 sheep. That is a large number but perhaps it may do it.

Respectfully submitted by

(Signed) Wm. F. Allen

Honolulu
May 31st 1858

MR. CROSSBY

Public Archives: R.C.Wyllie Collection

To Messrs Wyllie & Allen

Gentlemen

In accordance with your instructions I left this Port on the evening of the 11th inst on board the Schooner "Kamehameha IV" and was two days getting to Lahaina; where I was detained four days by the wind. On the morning of the 17th I left Lahaina in a boat manned (sic) by six natives, and made the passage to Kahoolawe in five and a half hours, which is called quick time.

The Island lies about ten miles from the nearest point of Maui, and about twelve miles from the nearest point of Lanai; the Island is located by Compass about North North East by South South West, which brings it in a line or nearly so of the Trade Winds, which sweep down both shores, and over the Island with a good deal of force. There are some small valleys at the north (sic) of the Ravines where there is shelter from the wind.

The Island on the North Side is rocky, but as you follow the shore along to the South West you find several small places where there is a small sand beach, and on (sic) good sized harbour, where a small vessel could run in and anchor protected from the wind by the high land, this is called Ahupu; here I should recommend a vessel to go to land any freight she might have. This harbour is some five miles from the part of the Island where the good feed is.

The shore of the Island is from one to two miles wide almost all rocks before you come to good soil; the best soil is on top on the Northern part of the Island; it is comparatively level on top, the descent is very gradual from the Northern to the Southern extremity.

In the centre of the Northern part is a mound which is the highest point of land on the Island, about this the soil is very good being a sort of loam, here the Natives have some Sugar Cane growing; Mellons, potatoes and pumpkins grow well here. On the South and sea ward side there is a small harbour, but I do not think it would be of much use as it is so far off. Here as well as at the Harbour on the other side is a small well of water, and by digging no doubt plenty of water could be obtained, but it would be brackish. The rock abounding here is mostly the black lava, there is rock on the North side having very much the appearance of slate stone.

I killed while here with the aid of dogs belonging to the Natives one Goat and one Hog, and poisoned the meat, but whether it had the effect of killing any Dogs I do not know, a large portion of the meat was eaten during the night, but no dead Dogs were found in the morning. It is impossible for me to estimate the number of Dogs, Goats or Hogs there as I saw but one of each,

made, and from the information I have obtained
I am of opinion that the sheep will not suffer for
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Honolulu
May 31st 1858.

Respectfully submitted by
J. H. Allen

1858
Report W. P. Allen
revised
San Francisco
21st Aug
1858
+ 190. 18

from the beach, I should think Donkeys would be the
cheapest and best animal for the purpose.

There are especially two kinds
of Grass which abound, both of which are very coarse,
there is also a shrub called Acococo which is filled
with a milky juice of which sheep are very fond,
and it answers for both food and drink for them.

The Acococo and a scrubby tree called Mida Mida
are all the approach to trees on the Island. The Pink
Pear grows here, and a very small shrub a species of milk
weed.

The Birds which frequent the
Island are Plover, Pigeons, Terns, there are a good many
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way to exterminate the Dogs, is to move your sheep
over after building a good pen, and pen them
every night, the milk attract the Dogs, and I should
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about fifty natives men, women and children, the men
are engaged in fishing which is very good there most
of the year, as there are several kinds which frequent
the sea about the Island. These natives do not live
here all the year, but are here most of the time
except during the rainy season, their food (Poi) they
bring from Hawaii after disposing of their fish
in Lahaina.

There are Flowers along
the South West or Lahaina side of the Island
at three different locations about five miles apart.
These natives are anxious to remain here, and some
of them are willing to be employed as shepherds.
From the examination I have

The shore of the Island, is from one to two miles wide almost all rocks before you come to good soil; the best soil is on top on the Northern part of the Island; it is comparatively level on top, the descent is very gradual from the Northern to the Southern extremity.

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I should recommend that the House be built on the top near the mound, and that it be shingled, that a cistern be sunk for water. The material would have to be packed up

July 21, 1857

To
Messrs Hyllie & Allen
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The Island on the North Side is rocky, but as you follow the shore along to the South West you find several small places where there is a small sand beach, and on good sized harbours, where a small vessel could run in and anchor protected from the wind by the high land, this is called Ahupua, here I should recommend a vessel to go to land any freight she might have. This harbour is about five miles from the part of the Island where the good feed is.

1858

Wm F Allen Esq
21 May
Recd 1 June
and 17 July

To
H. C.
R. C. Myllic
Dear Sir

I have the honor
to enclose you herewith my report
of the exploration of the Island
of Kahoolawe, also my account
for same. Trusting it may prove
useful to you.

I remain

Yours Respectfully

H. F. Allen

Honolulu

May 31st 1858

Walter King Esq
an Honolulu
I account of
Kahoolawe

ILLEGIBLE COPY

The documents appearing on the following page is the complete reproduction of the original document and was created during the normal course of business and, as delivered and in my legal custody at the time of filming. The following document is a true copy of the original document.

KA HUAKAI ALII
Kalani Moi Davida Kalakaua
Ma na Hono a Piliaili

I ka pas ana aku o ke Alii i nke, ke Kia-
 aina a me Sam'i Parker, makou no hoi a
 pau ni keli o ke alo, a me na keli hoo, o
 na waapa elua i ka ae-one, a maluna o ke
 alanui i-ole; hoomoe ia mai ka hale mai,
 a i ka lihi o ke kai, Kalani, Moi i hehi ai, i
 lawelawe noea ia, a makee ali' na kama-
 ina lokomakai o ia Mokupuni; a o makou
 hoi a pau, Inakaha iho la i ka pua-one e olala
 ana i ka mahana o ka la. A hale he mau
 minute pokole, hoomakaukau ia mai la na
 mea ai o ka paina kakahiaka, liliu se la
 makou e kuene like, ua kahiko ia he ka
 hale me he lau ululi o ka nahahe, a ua ma-
 kai a alohi i ka lilihi ke ike aku i ka nui
 o na mea ai ma ka pua-aina, no lakou na
 anoa, hoolau like ole o ka momona.

NO KA MOKUPUNI O KAHOLAWE

Ue minamina nui au i o'u mau makama-
 ka heluhelu o ka nupepa LAHUI HAWAII i
 ka loaa ole ia a'o kekahi kamaaina kupono
 nana e kuhikuhi mai i na wahi kaulana o
 keia mokupuni, oia au malaila; aka, me
 kuu ake hse e hoike aku i na mea i ike ia
 maloka o kona mau pohai.

A pau se la ke aina kakahiaka, liliu se
 la ke Alii a me kona mau Ukali maluna o
 na ho'ewalo a holo aku ia i nke, ma na kula
 palahalaha e waiho laula ana mai uka a kai,
 me he la he 300 eka, ku mai ana he puu, a
 pela aku ana; waiho mai ana he mau awa-
 awa kuhohou, a pela aku ma ka akau a
 me ka hema. Hookahi no pun kiekie e
 huli mai ana e nana i Molokini; oia hoi ka
 puu o Ulukou, a hookahi no hoi lae kaula-
 ma ma ka hema o Kealaikahiki, he ano poe-
 poe Iolhi (spheroid) ka waiho hua o ka mo-
 kupuni.

NA ALII ULU

O na mea nla launahale o Iuna, Memane,
 Akia Nenee, Wiliwili, Maniana (Mahiki),
 Mauu Piliaili, a Mauu Pili e ako hale ia nei,
 na ulu nui ma na lae kahakai a puni; he
 Puawa, a he Nohu.

He 20,000 hipe, he 10 ka, 6 kaaaka 2
 kane (he mau haola) a waiho (aia He-
 wai ponoi) 2 mau wahi keli; 4 hale, 2
 ilia, a he mau hanani kaa. O kona mau
 waiwai, a me ka mokupuni holookoa, ma
 malalo o ka Hui o Alani ma (Lunakanawai
 Kiohia.) Ma ke koho wale ana aku me he
 la he 20,000 eka a oia emi mai paha o keia
 mokupuni. He aina maikai a kupono no
 ka hanai holoholona, na lawa i na 100,000
 hipe e hookuu ia malaila, no na makahiki
 he 20 a oi, aole e olala, aka, e momona mau
 lakou. A he mau kahawai, punawai, wai-
 mapuna, e pilikia ole ai ka ohana he lehu-
 tohu, aole e oi mamua o ke 50, a o ka ni-
 nio no na mokupuni e mai. O ka malama
 ana o keia mau mea, aia malalo o Mr. Lewis,
 he hiole Farahi, oia ke ali' o Kahoolawe, he
 makamaka oluolu a lokomakai.

A i ka hiki pono ana ae i ka hora 11 o
 ke awakea, hoi mai la ka Huakai Alii a
 kahakai, a aloha hope me na kamaaina a
 huli hoi mai la i ka moku, a emi ae ana
 no hoi o Kilauea ia makou mai Maalaea
 ae.

A i ka pili ana mai o na waspa elua, me
 he la 2 mile mai ka mokupuni mai, hoo huli
 ae la ka ihu o ka moku i ka hikina akau, o
 Makana ke awa. Holo pili koke mai la
 makou ia Molokini, o ke kulana o kona
 waiho ana, me he la he nahaes a lapun ana;
 aole i liliu iho kaalo ana Puuolai, alawa
 aku ia au mapuna o ka ihu, e kaa mai ana
 o Ulupalakua, iuna, ka home nani o Capt.
 Makee, malalo iho o ka malumalu o na la-
 au paina o ku pece ana. A ku ka moku i
 ke awa, a pae aku la ka Huakai Alii i eka,
 liliu se la ka Moi a, me na Ukali, makou
 a pau maluna o na lio, a me na ukana a pii
 aku i ka home nani o Mr. Makee, ka Pari-
 daiso o Hawaii nei (ma ka hoohalike ana,) o
 ka hora 5 ia o ke ahiahi.

A hiki aku ia makou i na home la, me e
 ka nani, na laau o nunui a liliu, na laau hili
 e nenee ana, na pua nani popohe o na kahi-
 ko waiholuu like ole, no lakou na ala on-
 ona i hiki ko kanpaona ole ia ma ka mea
 ana, na Ipa wai nui, na wai piula pipii, na
 alanui pohai poepoe i palaina puna ia, e ma-
 okioki ana iwaena o ka uluwahi o na mala
 pua, me he la 3 eka; a hoolulu iho la ma-
 kou a pau i ka maluhi, malalo iho o ka ma-
 lumalu o na laau, a me ko ko waihanuena ala
 o na pua, a ke kohau o ka mauna Halcahala
 o kolonaho mai ana.

(Aole i pau.)



"In unum est"

"in alio est Deus"

(WEEK)

HONOLULU, POAHA,

DEKEMABA 23, 1875

(HELU 12)

KA HUAKAI ALII A

Kalani Moi Davida Kalakaus

Ma ha Hono a Pūlani.

Ma ka Ponakahi, Dek. 18, liliu ae la Kalani Moi i kona Huakai Alii Makenikai no na Hono a Pūlani; lawe no la ke Alii he maui ohua kakaikahi o kona alo pono, a me na keiki hoo waspa o ka uwapo he elima ko lakou huina.

A ma na hora poniponi o ke anoano liliu, hekan he la makou a pau ma na palekai o ke Aliiwahide o na kai ewala ka mokuahi *Kilauea*, e hana ana i ka hohohone o na leo mele Opera Germania a ka 'Bank Alii, a me ka lalanu eha o ka uwapo Aimahou i na kanaka, i paku ka maui hui o ke kala-piha, a weli o ka hoailona kapu o Kalani Moi, e na pu kunihi pahuku o ka Batari o Paowaiwa, a me ka welo haheo o ka hae Kalanuu ma ka wini o ke kai, i ka nuku o Mamala; me he la e pae mai ana ka leo o ka hana, "E ole mau ke Alii, ma kana Huakai." Ma ka hora 6 P. M. pono, haalele makou i ka nuku o Mamala, e pahili ana ka makani nani Waikiki ma ka hoao, e latio paku ana ka iha i ka hikina, o Lahaina ke Awa. Oia ai makou ma ka moana, a ka mokuahi e lawe lai ana, alawa e hana ana i na manua, he nui na maka hanoano, a na pa-umi ia ko'o hauoli, a makee alii, ma o ka lapua ana mai o lakou e hoouana Inia, ma na kamailio hoouawele ana, a o Kona Ukali o ka Huakai Alii kekahi, Samuels Parker; pola wale makou e holo maikai ana, a hiki i ka wa a ka mahina konane, ke kuni o ka pu i hoolei mai ai i kona nani piha malana iha.

A na nance a olioli mau o Kalani, na olioli a pau, i ka leo nahenhe o na pila, Accordiana, a me ka Violina, a i hoolawa loa ia mai hoi e ka hoene o na leo himeni o na keiki o Kehaulani i ka ili o ke kai, pala wale ke nahenhe, a hiki loa aku ma o na hora liliu o ke kau, hiamoe ihu la ke Alii o ka hora 11 ia. Oia kun ana ihu, no p ke oki aku la no ia, a na ke osos o ka moku i hoala mai ia makou mai ka aina moephane mai, a alawa aku la mawaho o ka pilekai, e pouliuli mai ana na kuahiwi o na Hono, ma na osos a pau ka moku. Ma ka hora 3 pono o ka wanao, ku ka mokuahi i Lahaina lele aku la na ohua, a me ka eke leta. A kuu mai la ke Kinaina J. M. Kapena i hiki ia o Ke Nahaolelua, Saml Kamohaku, a me na keiki hoo waspa o ke Awaiki, no ke Kinaina, a me ko lakou waspa pu no, ukali mai la i ka Huakai Alii.

A ma ka hora 4 o ka wanao, haalele ihu la ka mokuahi i Lahaina, ratio paku; ae la i ka hikina ahi i ka hema o Kahoolawe ke awa, a ma ka hora 7 kahiaka, kono aku la makou i ke awa o Hanokou, kokoke keia awa i ka lae Kanala ma ka hema Kealaikahiki, (na kono nui keia inoa iloko o na moolelo kahiko o Hawaii nei). Ulen like ae la na keiki hoo o na acob elub, ko Kalani Moi a me ko ke 'Lii Kinaina, kun like ihu la na waspa ilalo; A makaukau ke Alii, no ka holo ana aku ika, haalele mai la o *Kilauea* ia makou no hamaalae, a holo aku la makou i uka no Kahoolawe, a pae aku la i ke one me ke kuululu i ke kopi ia e ka hanakai, a na kakou hoi ke awa.

(Aole i pau.)

Ulapuu [in her translation Silva translates this incorrectly as "Ulapau"]. There is also one famous cape south of Kealaikahiki; the lay-out of the island is rather oblong.

Vegetation

There are forest plants upland, Mamame, Akia Nenee, Wiliwili, Maniania (Mahiki), Pilipili grass and pili grass used to thatch houses with, which grows here abundantly on the shoreline capes island-wide.

Fauna

There are 20,000 sheep, 10 horses, 6 native men, 2 white men, 2 full-Hawaiian women, 2 small children, 4 houses, 2 dogs, and a few hundred goats. This property together with the entire island are under the Hui o Alani (Chief Justice). 20,000 acres more or less have been chosen on this island. It is good land - one suited for raising animals - sufficient for 100,000 sheep to be placed there for 20 years or more; these will not grow thin but they will continue to fatten. There are streams, springs and spring water, so that the family and the others are not inconvenienced - there are not more than 50, however, their food comes from another island. The care of all of these falls under Mr. Lewis, a Frenchman who is chief of Kahoolawe; he is a pleasant and generous acquaintance.

Just when 11 a.m. had arrived, the Royal Excursion returned to the beach. Final farewells to the residents were made and we turned to the ship, the Kilauea who searching for us from Maalaea." (Ka Lahui Hawaii issue of 30th December, 1875:4:c.2)

Appendix U

King David Kalakaua's Visit To Kaho'olawe

The following is a translation by Carl Silva of an article in the Hawaiian language newspaper Ka Lahui Hawaii dated 12-30-1875 (page 4, column 2) and entitled "Ka Huakai Alii a Kalani Moi Davida Kalakaua, ma na Hono a Piilani", or "The Royal Excursion of H.R.H. David Kalakaua to the Bays of Piilani". (Silva 1983:61-62) The King was on a tour of all the islands within his realm. The "Bays of Piilani" referred to in the article's title are the bays which are visible from Lahaina, Maui, Pi'ilani being a well known chief of that island.

"At 4:30 a.m. (dawn), the steamer left Lahaina bearing to the east slightly south on Kahoolawe where there is a harbor; and at 7 a.m. we entered the harbor of Honokoa, which is near the famous cape to the south, Kealaikahiki (this name appears much in the ancient traditions of Hawaii). The paddlers on both sides - on that of the King's and on that of the Governor's were as quick and as lively as the rowboat beneath. As the King prepared to sail toward land, the Kilauea left us bound for Kamaalaea [Ma'alaea, Maui] and we set forth upland on Kahoolawe, landing upon the beach shivering from the spray of wave action as the sea in the bay was rough." (Ka Lahui Hawaii 12-23-1875:2, c.2)

"When the King, the Governor [probably Paul Nahaolelua, Governor of Maui], Sam'l Parker and all the rest of us - the court companions, paddlers of both rowboats on the shore had landed, the King stepped out onto the canvas laid from the house to the edge of the shore and was appropriately attended to by the warm, generous residents of this Island who have great affection for their King. Likewise were we enjoyably engaged on the sand dune, basking in the warmth of the sun. After a few short minutes, food for breakfast was prepared and we were ready to be served. The house with its dark leaves of the forest was aged yet, a glimpse of the abundance of food for the meal was pleasant and splendid; from them came the welcome and we were immersed in abundancy.

Relating to the Island of Kahoolawe

I am extremely regretful, my friends who read the paper LAHUI HAWAII, that I did not find a local resident who could point out the famous places of this island while I was there, but it is now my desire however to reveal the things seen by his circle of companions.

When breakfast was finished, the King and his entourage prepared to mount eight horses and rode upland to the flat plains which present a broad view from mountain to sea - 300 acres - a standing hill and such; several deep valleys on the north and on the south were seen. When one turns and looks toward Molokini, there is one high hill, namely the hill of

KE AU OKOA.

JNO. M. KAPENA.
LUNA HOOPONOPONO
DONOLULU, JANUARI 6, 1871.

HE MOOLELO KAAO

KA EHUIKIMANOOPUULOA

KE KEIKI MANO A KAPUKAPU MA LAUA O HOLI.

KA HOOKA KAUA A NA MANO.
[Harold & William Henry Uava Kaa]
HELU 7.

He ahi te laka mahe a pee nei i to ohe i oha, a e iho noa ka nei o te haka...

E he iho noa ka nei o te haka mahe a pee nei i to ohe i oha, a e iho noa ka nei o te haka...

ato, ka iana paha e huku atu hel mahe...

A mahu nei te o Moolaha. O te wahi...

...iho noa ka nei o te haka mahe a pee nei i to ohe i oha, a e iho noa ka nei o te haka...

toe pe, apopo a tepone ka la, hiki mai...

...iho noa ka nei o te haka mahe a pee nei i to ohe i oha, a e iho noa ka nei o te haka...

A he la o ahi i te Opio nei o Hilo, a i to ohe o ho la, a e nei ka te laka...

HE KAAO
-MO-
MORIONA,

KA ELEU O ITALIA.

HELU 7.

Mahepo hoo a to lakoo laua iho ohe, b...

I ka laka nei o Moriona i toia mahe...

KE AU OKOA.

JNO. M. KAPENA.

LUNA HOOPONOONO.

HONOLULU, DEKENABA 29, 1870.

HE MOULU KAAO

KAHEHIKIMANOOPUULOA.

KE KRIKI MANO A KAPUKAPU MA LAUA O HOLEI.

KA HOOUA KAUA A NA MANO. (HARU & WILLIAM HENRY DANA EOO) HELE 6.

A e e la, pane atu le ka Opie o laka...

No keia mau olelo maikai a ke Opie o laka...

Pe e la ka laka nei kamalii eua me ke...

I ka wa kapena o ka la, ua makauka...

"U hua aua ua kamalii eua me ke...

Ke hehi mai le ka laka eua me ke...

wahi kahi, o ka laka nei kamalii eua me ke...

I ka la e laka i hoike nei mai ai, ua nei...

Pe e la ka laka nei kamalii eua me ke...

I ka wa kapena o ka la, ua makauka...

Ke hehi mai le ka laka eua me ke...

Ke hehi mai le ka laka eua me ke...

Ke hehi mai le ka laka eua me ke...

I ka wa kapena o ka laka nei kamalii eua me ke...

A pe e la ka laka nei kamalii eua me ke...

A pe e la ka laka nei kamalii eua me ke...

A pe e la ka laka nei kamalii eua me ke...

A pe e la ka laka nei kamalii eua me ke...

A pe e la ka laka nei kamalii eua me ke...

A pe e la ka laka nei kamalii eua me ke...

HE KAAO MORIONA

KA ELEU O ITALI MELU 6.

I ka wa a ka mau i lobe pono ai...

He mau eua le Moriona te haka...

KE AU OKOA.

JNO. M. KAPENA.

LUNA HOOPONOPONO.

BONOLULU, DEKENABA 7, 1870

HE MOOLELO KAAO

...NO...

KAHEHIKIMANOOPUULOA

...NO...

KE KEIKI MANO A KAPUKAPU MA LAGA O HOLEI

KA HOOUKA KAUA A NA STAAO.

[HAKOIA & MA WILLIAM HENRY UAOA EAA]

HELU 1.

E olelo ana penei: Ke hua aku nei ko Kapanoa... Ke hua aku nei ko Kapanoa... Ke hua aku nei ko Kapanoa...

I hua la e kua ori se hapanoa... I hua la e kua ori se hapanoa... I hua la e kua ori se hapanoa...

Ia wa e ka hoouka kua a na staa... Ia wa e ka hoouka kua a na staa... Ia wa e ka hoouka kua a na staa...

Ia wa i olelo mai ai e Kapanoa... Ia wa i olelo mai ai e Kapanoa... Ia wa i olelo mai ai e Kapanoa...

...ia se hua... ia se hua... ia se hua...

...No se wale na... No se wale na... No se wale na...

...Aule onere... Aule onere... Aule onere...

...No se mau olelo... No se mau olelo... No se mau olelo...

...No teia mau olelo... No teia mau olelo... No teia mau olelo...

...Ia wa i hua... Ia wa i hua... Ia wa i hua...

...Kua e aku... Kua e aku... Kua e aku...

...No ka meikai... No ka meikai... No ka meikai...

...Ia e mae... Ia e mae... Ia e mae...

...A hua... A hua... A hua...

...I hua... I hua... I hua...

...I hua... I hua... I hua...

...E hua... E hua... E hua...

...A pau... A pau... A pau...

HE KAAO MORIONA

KA ELEU O ITALIA HELU 2

Ia Marlona... Ia Marlona... Ia Marlona...

Mahope... Mahope... Mahope...

Hoouka... Hoouka... Hoouka...

Ia kua... Ia kua... Ia kua...

KE AU OKOA

JNO. M. KAPENA.

L-U-N-A-H-O-O-P-O-N-O-P-O-N-O

HONOLULU, DEKEVABA 1, 1878.

HE MOOLELO KA AO

-NO-

KAEHUIKIMANOOPUULOA

KE KEIKI MANO A KAPUKAPU HA LADA O BOLEI.

KA HOOKA KADA A NA MANO.

[HARUO I HE WILLIAM HENRY UADA ECA] BELU 1.

O ka halo ake la no la o ka elole a he i... la i ke'ni hamaia, e ka pihohi mai la no...

A heu iho la ka uae o ka malihini, heelalo... so la he 'ni hamaia e al lakou nei, o ka...

Moe lakou e tahahia to, e ka hakaheko... ce is o ka pua e haka nei lakou nei, e hiki...

I ka hiki Opio a lakou i ka Pukau, no... poe ia elole hu lae he haka haka to mo...

o ka iho to ka, e ka haka haka la... e maoo e pa imes oia nei, o laka atu ano...

Ke eane mara la 'ni ke to nei mahaka... tan e me to haka lakou e al nei. I he...

F. he lae e ka honua, E he hiki e ka la i Hakaio, E he hiki e ka la i Nuuanani, I he pa...

I ka waia oia o pule oia, no e hiki la... he moana, e ka haka haka, e ka haka...

A paia mai la o ka Kauhaha nei, E i hon... nana tena ka mai nei to'ni wahi, e he...

o ka haka haka e ka haka haka nei, haka... Opio nei a lakou i ka haka haka haka...

O to ia nei oia e la no ia iohu. E wa... he se eae haka haka haka haka haka...

I. wa paia mai la o Kauhaha haka... Kauhaha nei e haka haka haka haka...

Moe lakou nei oia e ka haka haka... in o ka pua, e paia e ka haka haka...

Hika atu la ka hiki e hiki e hiki e hiki... boali, haka haka haka haka haka haka...

HE KAAO MORIONA

KA ELEU O ITALIA

I ka haka haka e ka haka haka nei, haka... he mai o haka haka haka haka haka...

Aka, e ka haka haka haka haka haka... he mai o haka haka haka haka haka...

Ale no hiki e haka haka haka haka... ealo, haka haka haka haka haka haka...

KE AU OKOA.

JNO. M. KAPENA.

LUNANALOPONONO

HONOLULU, NOVEVABA 24, 1870.

HE MOOLELO KAAO

KAHEHIKIMANOOPUULOA.

KE KEIEI MANO A KAPUKAPU MA

LAUA O HOLEI

KA HOOUKA KAUA A NA MANO.

(Bakau a Ma. William Henry Uda Esq)

HELPI.

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

poni iho la i te heiki... he mea hooheka...

Ke ponu ahi... he mea hooheka... he mea hooheka...

A pua o te la... he mea hooheka... he mea hooheka...

A po na te... he mea hooheka... he mea hooheka...

Oia nohe... he mea hooheka... he mea hooheka...

hi a te malihini... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Pana mai... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Honole... he mea hooheka... he mea hooheka...

HE KAA MORION

KA ELEU O ITA

HELU I.

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Ma mea hooheka... he mea hooheka... he mea hooheka...

Appendix T

He Mo'olelo Ka'ao
No
Kaehuikimanoopuuloa

ILLEGIBLE COPY

The documents appearing on the following page is the complete reproduction of the original document and was created during the normal course of business and, as delivered and in my legal custody at the time of filming. The following document is a true copy of the original document.

Appendix V

The U.S.S. Patterson's 1905 Survey of Kaho'olawe

The following is a typescript of a handwritten document presently held in the files of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Data Control Section in Rockville, Maryland. It provides an account of a topographic survey of Kaho'olawe undertaken in 1905 by crew members of the U.S.S. Patterson.

Department of Commerce and Labor
Coast and Geodetic Survey

O. H. Littmann
Superintendent

Kahoolawe Island
Territory of Hawaii

Planetable Survey
Executed
Season of 1904-5
by

H.W. Rhodes, Assistant
H.L. Beck Aid
J.W. Maupin Aid

Scale 1/20000

Under charge of
J.F. Pratt Assistant
Commanding U.S.S. Patterson

Descriptive Report

to accompany topographic sheet of Kahoolawe Island.

[Stamped "U.S.C.&G. SURVEY, LIBRARY AND ARCHIVES, JUN 5-1905,
ACC. No."] [page 1]

Planetable Sheet
Kahoolawe Island
Territory of Hawaii
Scale 1/20000

This island had never been surveyed by the Hawaiian Government and until now its shape and area was unknown.

(2) Under the earlier chiefs and King of Hawaii it was used for penal purposes and is said to have had a comparatively large population. The island now belongs to the Territory of Hawaii and is leased as a whole; the present leaser using it for a sheep ranch. The present population numbering about seven is composed of native Hawaiians with the exception of one Japanese. The improvements such as dwellings, etc. are all at Conradt's Cove, they are in most excellent condition and are well adapted for the purposes for which they are intended. These improvements [page 2] are built and maintained by the lesee.

(3) A Light-House, fixed white light, has been built by and is maintained by the lesee on the easterly side of Conradt's Cove. An anchorage with 12 or 13 fathoms with good bottom for this general locality, can be obtained by bringing the light in range with the easterly ranchbuilding (white house with red roof).

(4) Kahoolawe (kah-hoo-la'-ve) Island is of volcanic origin. The bluffs, rocks, and cliffs around its waters edge and all the outcropping rocks and loose stones are of lava. The latter are very thick in places. The depressions marked on the sheet are unusually well defined craters.

5 In early days the elevated portions of this island was covered with trees and bushes and there are indications that it was once better watered. A great many years ago goats were introduced on the [page 3] island. They ran wild and multiplied into the thousands; during dry seasons they gnawed the bark off the trunks of the trees and bushes which killed and eventually completely destroyed all of this character of vegetation. The cool leaves of the forest on the higher lands of the island served to condense the moisture in the heavily loaded atmosphere producing local rains and showers. The trees and shrubs covering the ground hold the moisture. Since Kahoolawe has been denuded it has become almost arid. With the exception of a few "water holes" that last for a few days after a rain there is no fresh water, (on account of the porous nature of the lava of which the island is composed), such as springs and brooks on the island. The two or three wells that have been dug are brackish, and the only water that is available for domestic purposes is the rain caught on [page 4] the roofs of the buildings and stored in concrete cisterns.

(6) The entire southern side of the island is inaccessible from the water. The bluffs being too precipitous to climb: in consequence the topography of the southerly portion had to be done from camps which were packed in on horses without pack-saddles. The lumber for the signals had to also be packed across from the north side.

(7) Smugglers Cove was so named because, during the latter[?] dynasty, opium was smuggled into the island with sailing vessels from Victoria B.C. and this was one of the favorite places for landing and hiding it.

(8) Kealaikahika Point its western extremity is one of the more ancient names in the islands its meaning being "on the way to Tahiti" for the reason [page 5] that in very early times ["the" has been crossed out] these people voyaged in fleets of canoes to Tahiti guiding their course by the stars and using this cape as a point of departure,

(9) The geographical positions of the triangulation stations plotted on this sheet are from a triangulation executed by the Patterson party during the season in which this topography was executed. The imlial[?] points of this triangulation were based on the Hawaiian Government Trigonometric[?] Survey.

(10) The greatest length of the island is east and west in direction, it being $10 \frac{7}{8}$ miles long while its greatest width of $6 \frac{5}{8}$ miles is in a northerly and southerly direstion and near its easterly end.

(11) The area of the island is about 43.86 square statute miles while the shoreline amounts to about 38 statute miles.

(12) The work of this island [page 6] was difficult for the reason that large portions of the coast was inaccessible and the landing had to be made in the surf.

(13) A table of topographic and hydrographic points determined with the planetable is attached hereto.

J. F. Pratt
Suptendt

U.S.S. Patterson
Seattle W.
April 18, 1905.

There follows a typewritten list of the various survey stations established and used during the survey. This list, entitled "Planetable Determination of Topographic and Hydrographic Positions", gives the locations of these stations as well as a brief description of them. The file also includes a photographic reproduction of the topographic map drawn by the survey.

Appendix W

The Kaho'olawe Field Notebooks Of J.F.G. Stokes

John F.G. Stokes' field notes of his two trips to Kaho'olawe are contained in a pair of small, pocket notebooks, presently held in the collection of the Bishop Museum Archives (Ms. SC Stokes, Group 2, Box 3 .15 & .16). The first of these notebooks (Book I) covers his trip to Kaho'olawe from February 25th to March 10th of 1913, during which he traveled extensively over the island identifying and mapping ancient sites. A map of the island drawn by Stokes, (also in the Museum Archives; HPF 2:8:11. Kaho'olawe), shows the route of his travels and is a useful accompaniment to the notebook.

On his second trip, from March 18th to April 14th, 1913, Stokes' concentrated his efforts on excavating the shrine site in Kamohio Bay. His second notebook (Book II) provides a detailed daily account of that excavation.

The pages of Stokes' fieldbooks often included small sketch maps of the various sites he encountered. A notation has been made wherever these occur in the text. The archaeological sites mentioned by Stokes have been identified by both the number given them by Gilbert McAllister in his 1933 book, Archaeology of Kahoolawe (McAllister drew heavily on Stokes' work), and the numbers assigned during the 1976 thru 1980 Navy sponsored archaeological survey (Hommon, 1980). Both of these publications have associated site maps. Where possible, artifacts collected by Stokes have been identified according to their Bishop Museum catalogue number. These are presently in the collections of the Bishop Museum Anthropology Department. The negative numbers of photographs taken by Stokes have also been inserted where appropriate. A list of these photographs is attached at the end of the text. All of Stokes' photographs are presently on file at the Archives of the Bishop Museum.

Book I

[The first page of the notebook contains a detailed sketch, dated "Kahoolawe, Feb. 27th, 1913", of the "heiau" (site) at Hakioawa Bay (McAllister's site 21, now site 350). Two finished maps drawn from this sketch are on file at the Archives (Stokes, roll 6).] [pg.1]

-"? Heiau in 2nd East bay [Papakanui?] on beach ["facing sea" crossed out] composed of two platforms [possibly McAllister's site 1, now site]. The lower, in front 26' wide the higher, 14' wide behind. Present meas. of heiau app. 40' wide & 45' long, but stream prob. has cut through western end, carrying away 15 ft. All meas. app. as this place is all but demolished.

In line with was & 48 ft to East is remains of another plat 10' x 18' cutaway by another stream.

Spec. Kuhei B. 2 mi W of landing among house platforms. Large rock 6 x 4 x 2 high, poised & covered with stones. 18" high, 2 gulches on ["This at old landing Kuhei Bay" has been crossed out. This is McAllister's site 46, now site] [pg. 2]

? Kealaikahiki

Inside of stone paved with smooth stones & coral rock 5'6 x 2'6

50 ft to N 150' to S, about 250' E & 50' W stones placed [The remainder of the page is taken up by a sketch of the site described above (McAllister's site 42, now site).] [pg. 3]

Smugglers Bay

Kuula, Encl. 16 x 16. Sand bottom
large rock E side near N.E. corner. [possibly McAllister's site 35, now site]

Another Kuula 100ft mauka
large rock at back, tapering seaward
1.15 w 11 mauka end
covered with large stones
below an enclosure

[There follows a measured sketch of the site previously described (possibly McAllister's site 42, now site).] [pg. 4]

Feb. 25 1913. Arrived Lahaina, 6.30 pm Freelands Hotel. Law Gay [Lawrence Gay] 10pm arranged to start 4 a.m. 26th
Feb. 26. Left Lahaina 5 am. Arrived Molokini 8 a.m. Swam ashore. Landed inside crescent towards West. Made our way to Lalilali point & travelled along crest to East point.

Inside slope steep, outer vertical. Small patch level ground near east point. Near this point & stretching to N were a number of small piles of stones placed irregularly apart 4-30 ft. The highest ones lined on ridge. Left Molokini after 10, circled the island & made Kahoolawe landing before 12.

In afternoon, walked to Puu o Moaula and then to Kanapou B. All the uplands have been blown away and the subsoil exposed. On the uplands, about an elevation of 1000 feet were scattered sparsely chips apparently from adzes, together with sea shells, Pechen [?], Cassis, Purapura, Cypraea, & on the Kanapou slope some of the cypraea were found prepared for squid hooks. Coral was also noticed. All these objects apparently had remained while the fine soil was removed by the wind. In [pg. 5] spite of a careful search, over the route travelled, nothing was found to indicate that the chips were actually from adze - making, although they seemed to have been artificially broken.

Feb 27. Went to crater overlooking N. cape, & thence to ? Hakioawa B. where 4 mst. Sch. Olga was wrecked. On S. side on low cliff was a reputed heiau [McAllister's site 21, now site 350] which was meas. & photo. [negative numbers 1203, 1205, 1206 and 1209 are photographs of the site itself. Number 3387 is a photograph of Stokes' map of the site. Stokes drafted two finished maps of this site, both are in the Bishop Museum Archives, Stokes' maps, Roll 6]. It was not an imposing heiau. About 150' to W. was a house lot of two platforms on which stood a house when the Olga went ashore. This house the capt. of the vessel is reputed to have set on fire to attract attention. To the E. about 100 ft is a small low enclosure, about 5x5, which was probably a Kuula [McAllister's site 22, now site 348A. Negative number 1210].

In this bay, Cooke & Pilsbry found shells & remained. I continued with Henry Judd, Low & Forbes, who were goat shooting, in order to look over the country.

Low found small ulumaika [possibly artifact no. B.00315, B.00316, B.00317 or B.00318] [pg. 6]

Feb. 28. Low, Pilsbry & Forbes rode to W. end of island. Cooke, Maikai & I fished. I watching coast for caves also. Several caves, but shallow. When I reached the 2nd bay to the E. [of Kuheia ?] I quit fishing & examined a platform which Cooke called a heiau. Measurements already noted [see p.2]. Judd hurt, fallen from mule. Low found fishing stone [either artifact no. B.00363 or B.00364] at ? ["Kuheia B." has been crossed out]

Mch. 1st, Cooke, Pilsbry, & Low left. Their leave-taking used up all the morning. In afternoon I went up 1st gulch to E & came down the 2nd, Cooke's heiau gulch. Examined many ["burial" crossed out] caves, but none with anything in but goat bones.

Mch. 2nd Forbes & I rode to a gulch past Ahupu ? B. to W. F. found fishing stone [either artifact no. B.00363 or B.00364] & lamp & I a bait cup [both the lamp and bait cup appear to have been catalogued as lamps, and were given artifact numbers B00365 and B.00366] on the house platforms at ? ["Kuhei B." has been written in then crossed out. In the museum catalogue, the lamps are recorded as being from "Ahupunui". The site number for these house platforms is unknown, possibly McAllister's site 50.]

About 2 gulches further on we came to a rock poised, with a regular row of stones cresting it [McAllister's site 46, now site . Negative numbers 1211, 1215 and 1216]. Examination of the interior, after removing inner stones showed a layer of ashes 1' thick under a layer of red dirt." [p.7]

A few bays further on I found a fossil deposit of shells under some old house platforms [McAllister's site 45, now site] which had been washed away partly by a freshet. Near the platform I found some fish hook files & knives of coral [possibly artifact numbers B.00367, B.00368, B.00369 and B.00370], all broken.

Forbes & I demolished the house-platform in the hopes of finding something.

Mch. 3rd. Went to the West end of the island under the guidance of Maikai. In Smugglers B. & nearby found numerous fish heiau [possibly McAllister's sites 35 and 42, now sites and], some of which were photographed [negative numbers 1213 and 1217 are photographs of the sites themselves. Negative numbers 3385 and 3386 are photographs of Stokes' maps of the sites]. It would seem that the W. end formerly supported a large fishing community. On S. end of bay nearing the goat pen [possibly McAllister's site 36, now site] found more coral fish hook files [possibly artifact numbers B.00371, B.00372 and B.00373].

On the way, stopped at a cave at the 3rd gulch from landing & tried to get into a large cave [possibly McAllister's site 47 or 49, now site or]. We worked our way to the apparent end & I found a few rotten human bones. Digging downward, I found that the cave continued & after making a hole big enough to squirm [pg. 8] through. I found another pile of bones just as rotten. It was impossible to continue further into the cave without further help.

Leaving smugglers bay, we went to the S. point, & then struck inland, trying to locate the Kahuahale of Kamohoalii, noted by Joe Emerson on map.

Mch 4. Forbes & I walked to ? Hakioawa B. along N. coast, finding several coral specimens [possibly some of artifact numbers B.00346 thru B.00354] on house lots, & hunting caves.

At this bay we found, in what I think was a burial ground two skeletons, of a woman [either skeleton number 0196 or 0197] and child [one of skeletons number 0191 thru 0195]. Cooke had seen them when collecting shells.

In the woman's skull were a number of the smaller bones, also the shank of a pearl fish hook & the remains of a bone one much decayed [possibly artifact numbers B.00357 and B.00358]. It being late, we only examined the end of the wall in which they were buried [McAllister's site 23, now site 560. Negative numbers 3545-47].

On the way back saw the lower part of an imu all but blown away. [pg. 9]

Mch 5. Rode to large bay on S. side near Puu Koa. Descended the cliff & travelled along the water's edge by swimming & climbing. Found about 20 caves, only 4 of which went in any depth. Three of these it is hoped we will be able to examine in detail. One of the latter [McAllister's site 30, now site 306] was partially paved with smooth waterworn stones. On the N side was a mound or terrace built up with an edge of similar stones. Above it to the N was a smaller terrace, and above this a third. Back of the 2nd terrace was a kind of shrine which could not be investigated for lack of time.

On the uplands, S of Puu o Moaula, Forbes found part of a coral knife [possibly one of artifact numbers B.00325 thru B.00333], & he & I each found a hammer [possibly artifact numbers B.00319, B.00320 or B.00321].

Found traces of several imu surrounded by shells & stone chips. The chips probably were the result of putting too hard stone in the imu. [pg. 10]

Mch. 6. Rode to Kanapou Bay & descended to the beach at the S. by the S. gulch. We had expected to find fossil land shells and did so as soon as we alighted at the top of the gulch. The fossil bed continued all the way to the sand-dunes at the bottom. I went around this bay as far as possible in both directions, and found numerous caves with nothing in them [negative number 576 is a photograph of a "small cave showing gypsum stalactites"]. On the S. side of the beach were 2 platforms, one higher to the S.E. of the other, enclosed with low walls [McAllister's site 26, now site 129]. Each were about 15x15 [feet ?] inside. In the lower were 60+ *Cypraea mauritania* some of which had been roughly prepared for squid hooks. A greater number were buried. At first I thought that it was a hiding place for them. The platform was either a house lot or a squid fisher's heiau. The upper platform had the S.E. corner built out level with the wall [McAllister's site 27, now site 129]. On removing this part I found nothing but fossil land shells. [pg. 11]

Mch 7 Went to 33 Bay [Waikahalulu bay] & climbed down the cliff. Followed the water's edge by climbing & swimming & examined many caves, without results to the expedition. Forbes found a cave high up on the cliff in the watercourse with one side walled up with waterworn stones. It contained many *Cypraea* shells, about 30, many of which were prepared for the squid hook. He brought 2 along. In the end of the

big bay of 33, there was apparently a fish heiau or a house platform [McAllister's site 33, now site 303]." [pg. 12]

Mch 8. Went to Hakioawa ? Bay & found a coral knife & several smaller coral specimens broken [possibly some of artifact numbers B.00346 thru B.00354]. Investigated the place Cooke told us of & found part of a bracelet of boar's tusks [artifact no. B.00361] and of a necklace of shell beads [artifact no. B.00360] with traces of two more skeletons [among skeletons number 0191 thru 0197]. On the south side of the north gulch was a skeleton bundled up & laid on its ["side" crossed out] back [among skeletons number 0191 thru 0197]. The first mentioned place was in shape. [There follows a measured sketch of the structure, site 560, near which the bones were found].
On the way over photographed the remains of an imu, 2'4' in diam [negative number 557]. [pg. 13]

Mch. 9 Packed in the morning. I went out shooting in the afternoon & got 5 goats, 4 with the first 4 shots

Mch 10. Started early in the morning in Gay's launch & went round the W. end of the island, stopping in Puu Koae Bay.

In this place I went into a cave at the head of the bay & found parts of a canoe [site 307], & then into another cave which gave no return.

Then we went to what had apparently been a fish heiau of great importance [McAllister's site 30, now site 306]. It was originally a large rock shelter in the front of which, to the N. of the middle had been set up a wooden idol and terraces of stone built up to it.

[The remainder of the page is taken up by a rough sketch of cave and terraces]. Contd. 2nd page [pg. 14]

Kaiilu, of Honokahau [possibly the name of one of Stokes informants on Maui]

Pohaku o holonae [name of stones investigated by Stokes on Maui.]

Puu Koae ["Just beyond Kohakuloa [Maui] is a steep hill rising directly from the sea, called Puu Koae." (pg. 21)]

William H.B. Lincoln ["an old half white called Lincoln who told us the name of the stones near Honokahau & also of a locality of interest at Puu Koae" (pg. 18).]

[The names of persons and places listed on this page appear related to Stokes' subsequent investigations of ancient sites on Maui, described on pages 18 to 22 of the notebook.] [pg. 15]

The terrace to the south was the largest and lowest, and was mostly inside the shelter. Near the W. end were a number of

sticks set up and two pointed stones wrapped in tapa. There were two piles of fern, which Forbes said did not come from Kahoolawe. Rubbish, consisting of pieces of sugar cane, whole and chewed up, broken stones from the roof, thick dust, shells, awa root & coral made a heap reaching to the roof. Forbes investigated this and found the head of a wooden idol [artifact no. C.03525], a sinker, a needle of fish bone & other things.

Investigated the second platform, outside which was on the talus level with the roof. At the SE corner was smooth stone set up in tapa, resembling roughly a shark. Back of this & close against the cliff was a wooden idol buried almost completely [artifact no. C.08814]. Tapa was wrapped around this up to the forehead. Back of this again on a slope falling into the recess behind were three long ala ['ala: waterworn volcanic stone] set upright. In front of them was found a piece of rotted tapa. The wooden idol [pg. 16] was practically buried in fern, and around it were a great number of *Cypraea mauritiana*. Alongside to the E were a number of sticks in the dirt, one of which had been intended for a kahili. I dug a trench across this platform towards the idol, and found many fragments of fishbones, skin, sugarcane leaves small smooth stones & part of a bone fish hook. A carved spine from ["an Echinus" crossed out] an echinoderm was found near the shark god at the corner.

Inside the recess back of the platforms, William Goodwin or Kane found several bullock's shins which had been cut down probably in process of fish hook making. Also the broken outrigger of a canoe.

Work had to be suspended at 4 pm as the launch had to leave for Lahaina.

Following around the coast to the E & N, many promising caves were ["discovered" crossed out] seen, which it would pay to investigate. Arrived Lahaina at 8.30 pm." [pg. 17]

[The remaining five pages of the journal concern themselves with Stokes' subsequent visit to ancient sites on the island of Maui.]

Book II

"Nahoikeika, Olawalu Mill
Kaulu, Kakakuloa
Lincoln, Lahaina

John Kanui

[These four entries appear to be the names of Stokes' informants and their place of residence on Maui. Nahoikeika is mentioned in Book II, page 3; "In the evening I hired a machine to go to Olowalu to see Nahoikaika who once belonged to Kahoolawe. He said he knew little of the island being young when he left. He said that there was a big cave at Ahupu B." Lincoln is described in Book I, page 18 as "an old half white called Lincoln who told us the name of the stones near Honokahau & also of a locality of interest at Puu Koae". The Puu Koae referred to here is on Maui. The identities of Kaulu and John Kanui are unknown.] [pg. 1]

March 18, 1913.

Started from Honolulu in Kilauea. One hour out, shipped a heavy sea which broke the mate's leg and that of a horse. The horse was shot and thrown overboard, and the steamer put back, landed the mate and took on another. Arrived at Lahaina at 10 pm. Freight from May's & Hall's did not come. Expected on Mikahala.

Mch 19. Saw Jim Roberts, Capt of police and borrowed a canoe from him in return for fixing it up and painting it. Spent the day between waiting for the freight from the Mikahala, and seeing how the canoe was getting on. Maikai had difficulty in getting a helper for Togo, and there being a prospect of his failing us we tentatively engaged a Japanese with a [pg. 2] larger sampan to take us at 4 am. in the morning. At about 5 pm. I sent Perry out to the steamer with a letter asking if our freight could not be put ashore, but the freight-clerk being on the steamer's boat, he said he would look it up & send it in. While we were having dinner the steamer left with the freight on board.

In the evening I hired a machine to go to Olowalu to see Nahoikaika [Nahoikeika?] who once belonged to Kahoolawe. He said he knew little of the island being young when he left. He said that there was a big cave at Ahupu B. [pg. 3]

Mch. 20. Learned that the Mikahala was at Kaanapali with a fire in her cargo and after hanging around for news concerning our freight, Mr. Dunn of Lahaina (? agent of the Il Sh Co [?]) told us about noon that we had better get another supply of material as the boat would be sent directly to Honolulu without touching the freight. I got everything needed in Lahaina except the wheelbarrow and the pick, which Gill very kindly loaned me.

Had trouble re-engaging the sampan to take us, but Jaeger handled that end admirably. The matter finally simmered down to a broken exhaust pipe which Jaeger had taken to the mill and repaired. It is settled that we start at 4.30 am. tomorrow. [pg. 4]

In the Evening, called on Mr & Mrs Schoenberg with Gill, who said that the latter had some old H'n stamps. They were at the Lahaina bank, of which Mr, Schoenberg is Mgr. M [entry ends here, five lines empty before next entry]

Mch. 21st. Left Lahaina in Asahi Maru No 2" at 7am. although on board at 5. Arrived at Makena at 12 and enquired for Kamaaina of Kahoolawe. Was told that Awaloa, the only Kahoolawe man had died two weeks before. We interviewed Mrs Awaloa, who knew nothing. Left Makena at 1 & ran into bad weather immediately. Arrived at Kahoolawe at 4.30 & landed the goods in the canoe. [pg. 5]

[The following page, pg. 6, contains a sketch map of the Kamohio shrine site giving measurements in feet of the cave and the five adjacent terraces.]

[Page 7 shows a sketched outline of the cliff face and the edge of the talus slope at the Kamohio shrine. Both these sketched were most probably used as the basis for the map of the site shown in McAllister's Archaeology of Kahoolawe, page 46.]

[Page 8 contains another rough sketch of the Kamohio site, showing the position of the terraces against the slope.]

Mch 22. The sampan stayed in the bay until the afternoon, as he engines were out of order. The owner came over in the morning to know what to do in case he could not return. I gave him a note to Gill. We made platforms for sleeping and fixed up the kitchen in the morning. Fished in the afternoon.

Mch 23. Went to the cave at the head of the bay and got out an ohia log & another piece of the canoe of which I had taken two pieces before. Measured the fish heiau in the afternoon. [pg. 9]

Mch 24th. Started clearing away the rocks from the upper platform, No. 5. Found a coral fish scraper, several fragments of fish hook files & a big bunch of opihi shells, besides a few offerings & some cut bones near the edge.

Started on platform #4 in the afternoon. Found a fish scraper. The platform was composed almost entirely of sugarcane fragments & fish bones. Also found the shank of a fish hook & an echinus spine used as a file.

Mch 25 Finished platform #4 & started on #3. The upper layer was covered smoothly with ? pili grass on the upper surface. The place where the idol stood was in a small enclosure. Found parts of a fish hook & fish files [pg. 10]

Mch 26th [The remainder of page 11 contains a detailed sketch of platform #3 and the enclosure in which the idol stood.]

Found that only the outer part of platform 3, upper layer was covered with pili grass. The enclosure where the wooden idol stood was covered first with a thick layer of fern, very dry and well preserved. Taking the part in front of the idol and to the twin gods, under the fern was a pavement of 39 *Cypraea maurit.* underneath which was a pavement of beach-worn flat stones. The twin gods were wrapped together at the top with tapa, and a small horizontal stone lay between them [negative number 59483]. Following along the E border of #3, we came to another smooth stone wrapped in tapa blanket by two other smooth stones unwrapped on top of which were dried fish offerings. To the W. of the wooden idol was (?) another stone wrapped in tapa.

Back of the wooden idol & stretching to the bundles of sticks was a thick layer of ohia lehua twigs & leaves, underneath [pg. 12] which was the layer of fern.

The sticks seemed to be bundled in tapa, and there were 2 bundles (corrected later 27th) standing and it seemed there was a 3rd lying down to the E.

Around the wooden idol were many sticks lying down, and close to the idol, many fish offerings & coral.

There was a piece of coral in front of each of the two stick bundles standing.

In the S.W. corner of the idol enclosure was a flat piece of wood used as a fire stick, and a round fire stick stuck under the wall of the cave to the W. of the idol.

The S. of the idol enclosure was composed of 2 stones, about 4 inches thick, resting in the pili grass which extended from the outer part, just inside.

The upper part of the shank of a bone fish-hook, with the Ka [canoe bailer], was found in front of the idol in the debris [pg. 13] below the layer of fern.

There was a little sugar cane & several bundles of taps [tapa?] inside the idol enclosure, a lot of bananas around the idol, and several coconuts. There did not seem to be much awa.

A large stone had slid down at the N.E. corner from the talus.

The stick bundles & the 3 smooth stones at the N end of the platform in the cave have yet to be investigated.

March 27th. It was found that the stick bundles really consisted of a fence of sticks with tapa wound round and between them, & apparently continuing back to the triple stone gods. Between these tall sticks & the triple gods were short twigs of lehua, standing originally, apparently with

their leaves. Lying down all round the tall sticks was a thick [pg. 14] layer of fern. Back of the triple gods, the cave was seen [negative numbers 59484-5].

After clearing away the fern layer, it was found that the enclosure was paved with smooth stones, and in the middle, & alongside the wooden idol was a natural stone, boomerang shaped, used as an offertorium, on & around which were quantities of offerings of fish, bananas, coconuts. It would seem that the wooden idol was an after-thought & that the offerings before mentioned were an overflow from the stone offertorium. Hook point found in fish debris. On going deeper, a layer of pili was noticed, so, as we were down about 2 ft below the upper surface of outer no 3, I decided to return to this part.

When starting on no 3. from the outer edge, we had encountered a fresh-looking layer of ? pili grass, in which were found a few hooks & fragments of fish files. Clearing [pg. 15] off this layer had left a level surface of what looked like dirt with a few sharp stones fallen from the roof.

We now started in to sift this dirt & found it to be composed of a mat of pili grass, dust, ashes apparently & a few offerings of fish, awa chewings, cane, bananas, opihi, broken purpura & cypraea.

In the dirt 7 shanks (broken) of fish hooks were found & 49 coral fragments of sharpeners.

It is remarkable that no perfect hooks have been found so far.

This layer was not finished at nightfall. Under the ledge, several fragments of cut bone were found.

Several fragments of fire sticks were found. [pg. 16]

Mch. 28. Finished the third stratum of the 1st layer outer platform 3 at noon & found fish hook shanks, one point & several files. There was a noticeable number of purpura & cypraea maurit shells in fragments, which suggested that perhaps the shell points of the pahiaku [bonito hook] were made of these shells.

Found fire-sticks, & a small tuft of red feathers in fragments. There was a diminution of fish-offerings. Found a file from an echinus spine.

Started in with the 4th stratum of the same layer in the afternoon & noticed an increase in fragments of bark. Found a small perfect fish hook, & 2 idols from echinus spine.

Will start on the 5th stratum tomorrow. All the strata except the 1st stopped short of the boundary line of the idol enclosure. [pg. 17]

Mch 29

Platter 2'4 x 1'8 x 1 1/4"-3" roughly flat.

Finished the 5th stratum of the first of plat 3 outer layer & found an ala [dense waterworn volcanic rock] pavement. Under this pavement found an irregular pavement of rough stones

with an probable (?) offertorium of above measurements under the boundary of the division.

The ala pavement might well constitute the dividing line between the first & second layers. & correspond with the ala pavement of the idol enclosure.

The stratification of the second layer was very irregular and consisted of rough stones filled in with grass & offerings. Fish hooks & files became rarer, and the fish offerings more numerous. In the upper stratum, a small bone piercer was found, and in what might [pg. 18] be called the second stratum, a large piercer of bone. In this second stratum, cooked fish in ti-leaves began to appear, and were soon frequent, also splinters of bone from making fish hooks. The ti-leaves became so frequent that we discontinued saving them.

All the strata of the 2nd layer seem confused & it could appear that this layer, about 15" thick was built up of offerings & large stones. Hala leaves began to be frequent.

In what might be called the 3rd stratum of the 2nd layer we found two rat skulls.

What looked like an offering of charcoal was found. [pg. 19]

Mch 30. Started in the canoe to go to Puu Koa island, but as the sea was too rough, we stayed in the bay & fished for a while. I came back about noon & washed my clothes, while the other two went out fishing again.

Mch. 31. Finished what might be called the second stratum of the 2nd layer & started in with the 3rd stratum, running right through the platform in both cases. The 3rd stratum consisted of debris mixed in with the remains of an iliili pavement with a lot of particularly decayed pili grass. There was nothing showing under the ala pavement where the idols stood to indicate any preparation for their installation. In the 3rd stratum we found a fish scraper, & the remains of a number of echini under [pg. 20] the place where the triple gods stood. When cleaning up this last place, the stones began to tumble into the cave below, showing that the cave had been covered over by the falling talus. In the middle of the whole platform was a large rock wedged against the wall of the cave, around which the offerings were plentiful. This may have been the cause of the first use of this platform for offerings, but we will know more of this later.

The fish hooks & files found, were mostly around the edges, indicating perhaps that they had fallen in from above.

Another lot of charcoal was found on the side opposite that other lot.

The 3rd stratum was not finished. Work was interrupted through our efforts to signal a sampan which was fishing at the mouth of the bay. We [pg. 21] finally attracted

attention, & arranged to send Mr Jaeger to Lahaina for more cases & water.

April 1st

[The remainder of the page is taken up by a sketch show an arrangement of stones, possibly on platform 3. Attached to this sketch are the notes; "Platf. about 5'6" wide now." and "Bottom 3 ft below original surface."] [pg. 22]

Being the 1st of April, the Japs before mentioned fooled us and did not come for Mr. Jaeger. However as a very heavy wind was blowing, we did not blame them.

Finished the third stratum of the 2nd layer ending 3 ft below the original surface. This, combined perhaps with the 2nd stratum seemed to run under platf 4, & did extend out as layer 1 of platf. 2. (Later found incorrect)

Cleared away some of the talus threatening platf. 3 & 4 [There seems to have been some confusion in Stokes' mind, for the number 4 has been written in over the number 2. This happens with every such entry on this and the next two pages. The reverse is also true] , & found a coral file & what may have been a stone knife.

Started in with platf 4 & found that it contained nothing practically except around a large stone, which was probably a portal stone of platf 3. We had left a portion of platf 3. immediately adj. patf [platf ?] 4, and on clearing up the base of the portal stone, we ran into a great quantity of ashes & finally located an old fire place filled with ashes just inside platf. 3. [pg. 23]

It is possible that we have at last found the original purpose of the spot. There were a number of offerings around the portal stone, & some large stones have fallen from the talus on to platf. 2 (? 4) since these offerings were made. Back of the portal stone, level with stratum 2 was a large piece of shin bone, prepared for fish hooks.

On following down into what should have been platf. 4, we found a bundle of tapa wrapped in a mat which we packed without opening [this may be the human bundle burial wrapped in tapa and matting shown in photographs 2002-3236].

It would appear that platf 4 really did not go lower than the level of layer 1 of platf. 3.

I plan tomorrow to remove layer 1 of platf 2., & after taking a picture of the fire-place, to remove the portal stone [no picture of this fire place was found among Stokes' existing photographs]. Another stone, helping to brace it up, was removed before. [pg. 24]

April 2nd Found that stratum 3 layer 2 of platf 3 really continued a little further out, cleared this & continued to clear around the portal stone. Will have to add another stratum to layer 2 in order to take in the scrapings shown by the removal of large stone.

Removed the portal stone & scraped around it. While clearing the talus to the east to make room for it, Perry found another echinus spine god.

Started in to clear layer 1 of platf 2 & stratum 1 will include the rubbish & offerings on top, also from in front of the portal stone - a somewhat arbitrary division.

In clearing stratum 2 of layer 1 plat 2 we found nothing but charcoal & charcoal powder. It would seem that fire had caught a large pile of offerings after platf. 3 had been built, and the fire very probably [pg. 25] caught some of the offerings on top of platf. 3 as we found in layer 1 of the same, traces of fire. It would be well to examine the canvas found in this layer to see if the brown stain is from fire or rust. Stratum 2 of platf 2 was not finished in the afternoon, but about 6 inches of charcoal was removed.

Some of the stones on the cave side of platf. 3 had been placed there, near the south end. The others undoubtedly rolled there from the talus. [pg. 26]

April 3. Went down to about 2'6 in platf 2 through Stratum 2 in charcoal & dust. It is a puzzling matter to decide what this charcoal was for. It does not extend into platf 3 & is not paved, although the outer edges are held up by the smooth stones of the wall. Platf. 3 still shows distinct paving around & under the fireplace. It should be mentioned that the ashes around this fireplace were white probably from large firewood. There was no distinct traces of ash in platf. 2 among the charcoal.

About 6 inches above the burned level of platf. 2, near the front edge was a little lot of lime 12 x 9 x 3

Unburnt offerings were found around the edge of this platf. [pg. 27]

April 4. While sifting out the dirt of plat. 2. I noticed our sampan in the bay, the "Asahi Maru No 2.". We got out the canoe & sent Mr Jaeger to Lahaina with freight prepared for the other sampan

Afterwards, Perry and I continued the clearing of plat. 2. & finally came to what seemed like a pavement or some kind of division. It seems now that platf. 2 continues into the ~~area~~ and will have to be cleared more on that side.

There is a large rock at the S.W. corner of p. 2, between ps. 1 & 2 with a vertical V cut on which were found a quantity of unburnt offerings. Such offerings have been found right along on the S & W edges of the platform

The plentiful supply of charcoal has diminished & coral files have begun to appear again. What are found are [pg. 28] much blackened and are almost impossible to distinguish. No fine points are found, either because they cannot be seen, or because they have been burned up.

Shipped today the siftings packed on Mch 31

1 small box
 5 Kerosene cts[?]
 3 " cans
 2 sacks

Mr Jaeger also took a small box containing the films & fish-hooks & files. If he hears from his wife that he is wanted on Kauai, he will not return & may send someone in his place.

The wind has been blowing very strongly since 1st & the Jap said he had a worse trip today than a fortnight ago.

Of water, we had 12 gallons left, 3 men having used 48 gallons in 14 days. The Jap gave us 8 gallons more [pg. 29]

April 5

[The upper portion of this page is taken up by a sketch map showing the dimensions and relationship of platforms 1 and 2.]

Cleared platf. 2 to the N. E. & found that the offerings soon ceased. They were few & were probably an overflow from the platform. When we got down to from 3 - 3.5 ft below the surface of this platform, we found a somewhat irregular pavement of smooth beach stones, & it looked as though it might have contained 2 fireplaces. This pavement was about 2 ft higher than [pg. 30] the bottom of the platform. On removing the pavement, we found a rats skeleton & part of his fur. He seems to have been crushed by the talus caving in.

The pavement marks the division of layers 1 & 2. We cleared & sifted for about 2 ft from the edge of str. 1 layer 2 & found the usual offerings, without so many fish bones. The rear part of the platform seemed to be mainly talus material, but we will find this out later.

On re-examination of the first measurements, new ones were taken to be found on previous page.

April 6th. Decided to sift the main floor of the cave, called the Hall, in order to form an idea of the work yet to be done. Built a third run-way for the barrow, - Jaeger [pg. 31] & Perry had built 2 above. Sifted some of the dirt in front part of the Hall, and found many coral files and a few parts of hooks. The red dirt was from 3 - 8" thick and contained some [?] specimens & many traces of a dog. Under this was a layer of dust, charcoal & the usual fragments, of about 8". Then came some grass & below what seemed to be a good pavement of smooth stones. Layer 1 will take in all down to the pavement; (Str. 1 the red dirt).

In front of the bottom pf pl. 2 was a narrow ledge, and in sifting the red dirt on top, a broken hook altered as a piercer or [unknown word] idol was found. It is possible that this has slipped down from above.

Cleaned the face of the wall of pl. 2 & a lot of stones from the Hall.

At the entrance, sifted Str. 1 & 2 together for a few feet, and then about 80 sq. ft. of str. 1 alone [pg. 32]

Ap. 7. Sifted some dirt from the steps of the Hall.

Cleared most of the stones from the Hall leading to a small cave opp. the entrance & got into the cave. On the way in found on the surface a pearl shell makau [fish hook], broken of course, some other broken hooks and many coral files - this was in the main Hall, near the entrance of and in the cave. The cave had many smooth beach-worn stones and is in reality the continuation of the Hall which has been partially blocked by the raising of the floor level.

Then cleared the stones & rubbish thrown on the floor of the Hall from pl. 1 by Forbes, & sifted the rubbish, finding only 1 coral file, but a great number of petrel bones & feathers.

Sifted about 7' sq. of the 2nd stratum layer 1 of the Hall and found a few hooks and many files, & traces of fires. [pg. 33]

Took a flashlight of the Hall in the evening [this appears to be a flash photograph, which may be negative number 59487]

Ap. 8

[The remainder of the page is taken up by a detailed sketch of the Hall. pg. 34.]

Started in to clear off the material from the front steps of the Hall, down to the stones. At about 10 am Gay's boat arrived with water and a small box of supplies. Told him to return next Monday or Tuesday, 14th or 15th.

The sea was very calm today.

In the afternoon, finished the clearing of the steps and cleared the material resting on the pavement of the top step, and photographed the entrance [possibly negative number 59486].

Then started in with the upper & back part of pl. 1.

After I wrote the above & was sorting specimens at 9.15, a sooty petrel flew at the light & landed above Perry's head. He caught it, wounded on the head, & I skinned it. A similar bird flew at the light on Ap. 1 [pg. 35]

April 9. Started in with the back of pl. 1, which had been undisturbed.

Perry first cleaned up the E half, & found an offering of about 1800 pipipi shells. In this half were a number of bone cuttings from fish-hooks, but no hooks. There were a few files.

On the second half West, there were two pieces of coral, the first a poecilloproa about the middle of the back, & the other a porites. Found two bundles of human hair.

When we started with the main part of pl. 1, on the E side, we found an ala stone god in position. Above it at the back was an offering in ti-leaf laid on grass, and alongside it, E side a smaller offering, laid on a bundle of grass, the bundle being still tied. The idol was wrapped in tapa, and set in bits of beach worn coral

The main platform was composed [pg. 36] of rocks filled in with small smooth stones.

The siftings from this portion contained no hooks and very few files. The fish bones and opihi shells were plentiful.

The petrels had been nesting around here & Perry found an addled egg.

We found fresh tracks of a sea bird on the S. side of the Hall - probably the petrel we got last night.

Examined an ancient watercourse about 400 ft to the S. of our small bay, which was probably running when [sic.] the island was wooded. There was a cave underneath it, some of the large boulders of which looked green from dampness, although we found no water. About 150 ft to the N. was a pool of water within reach of the sea spray. The water was brackish only. At the first place, it was [word unknown, "was'nt" ?] be possible to climb up the cliff. [pg. 37]

April 10. Examined the middle cave in the morning

Sifted the material on the pavement of pl. 1. Under the V stone Perry found the point of a very fine barbed hook and a piece of fish net. Among the stones at the back of pavement to the W. I found a small hook, minus a point. Other fragments & some files were found in the siftings. Found some offerings on the W. end of the platform.

Planning to lower the level of the Hall floor before completing platform 1. I scraped up the remaining red dirt on the main part of the floor, and did not complete its sifting by nightfall.

There was a heavy rain in the afternoon and several rocks rolled into the sea from the points enclosing the bay, a couple plunging into the sea where I swim. No stones fell from the vertical cliff above the talus, and [pg. 38] no rain fell anywhere near the platforms. I went along the coast to see how much water fell at the place mentioned yesterday, & found none in the cave, and little outside. There was another gulch 50 ft to the N. where more water fell. There was a very heavy fall of water at the head of the big bay and another opposite our bay. The water looked muddy brown.

Found an auriculella in the sweepings of the Hall floor.

After clearing the pavement of pl. 1, found that the S. W. corner rounded, 2' inside our previous measurement.

Ap. 11. Another heavy rain and two falls of stones on the talus.

Finished sifting the surface dirt of the main part of the Hall floor, cleared the stones from the edge of the floor [pg. 39] on the south & outside the cave opposite the entrance. The siftings, not finished at nightfall, did not materially differ from those of the rest of the floor, but the number of hooks, bone chips and files was very much greater. Along the southern edge Perry found an echinus spine which had been trimmed [?] at the end. Later when

sifting I found the end of it beautifully carved as an ancient [unknown word] idol.

Ap. 12

3rd layer

[The remainder of the page is taken up by a measured sketch of the Hall floor. pg. 40]

Sifted the sweepings under the Southern edge of Hall floor until 1 pm, and then left them in order to complete pl. 1.

Removed the idol from pl. 1 & sifted the 3rd layer, which includes the pavement & the part next underneath. Had not completed the sifting by night. Perry found two perfect hooks near the outer edge 1/3 [?] from the West end. Found some human hair near the middle stone at the back, on the E side.

Cleared out a lot of material from the holes under V rock & to the back of the idol. Birds had been nesting here.

Above, around and below the pavement were abundance of iliili, and beachworn rounded coral masses - whole coral was found in places. Under the god the offerings seem to continue [pg. 41]

Ap. 13th Finished the sifting of the 3rd layer, 1st platform in the morning.

Sifted the 4th layer, which consists of a platform of smooth stones mostly 6" above the floor. This platform stopped short of the position of the god.

Cleared some more material from under the V rock, between 1st & 2nd platforms. It would seem that this space really belongs to pl. 2, which apparently is part of pl. 1.

As time was getting short we scraped up most of layer 5, running from the level of the floor to 9" below & consisting of a platform of rough [?] stones & a few iliili, sifted out the dust & large stones & bagged it for picking in Honolulu.

Sifted the dust similarly of the balance of the Hall sweepings under the the S. edge.

Found that the bottom layer [pg. 42] of pl. 1 had a fire-place, back against the rough stone wall holding the talus and in the W shelter of the V rock

The V rock, & the large stones resting on it are the important parts of the place.

It occurred to me, suggested by this fireplace & the burned stones we found on all the platforms, that pla. 1 was started first as a fire-place, & offerings made around the same built the 5th layer. The fireplace continues during the 4th & at the third, was removed to the bottom of pl. 3. After this began to be built up, the fires were made irregularly on pl. 2 & in front of pl. 3. The fish were not cooked over the fire, which was only for the purpose of heating stones, which were then placed on the platforms with the fish in ti-leaves. Some of the fires in pl. 3 may have

been started by overheated stones. I have got to [pg. 43] satisfy myself in this point.

I found the remains of an iron hook when cleaning for the 4th layer, at the edge of the floor. Probably from the floor. A fragment of cloth was found in the siftings.

Ap. 14. As Gay was expected to arrive with his launch today, we packed everything & then went on to sift the dust out of the material in pl. 2, leaving the picking to be done in Honolulu. Gay did not arrive. Bag 1, contains material from the first foot of the level at the time [?], & bag 2, another 6 inches. There was a stone on pl. 2 alongside the V rock, around and under which offerings were plentiful. Bags 3 & 4 contain the material around and under this rock, V rock & the stones supporting the latter. In a hole under one of these stones, two files & a fish line were found. In front, & perhaps [pg. 44] belonging to the floor I found an almost perfect slender file, 3 1/8" [? perhaps 5 1/8"] long. The top of the point was missing. In this vicinity I also found a large knee joint.

For experimental purposes a hole was dug in the floor, in front of pl. 1, for 2 ft, & the talua material met [?]. The same conditions were found as in the 7 x 7 section of the floor, viz, a thick layer of grass, then fire.

Fires had been numerous on the E part of pl. 2 as far as gone today.

Started in to sack the material on the stone steps & found they [?] ran two rows of smooth stones, on top of rough rocks. Sifted the first row & found it & the second similar. Grass under the stones & cakes of ash behind. Under the second row were a few offerings -

Pl. 2 is built in talus.

END

Appendix X

J.F.G. Stokes' Kaho'olawe Photographs

The following is a list of the photographs taken by John F. G. Stokes during his two visits to Kaho'olawe in early 1913. All photographs are presently in the collection of the Bishop Museum Archives. The numbers shown are the Museum's negative numbers, those in parentheses are either Stokes' original numbers, or McAllister's 1930 numbers (M₁). Those numbers marked by an asterix * already have copy negatives, all others do not.

<u>No.</u>	<u>Photographer</u>	<u>Subject</u>	<u>Book</u>	<u>Page</u>
576(12)	Stokes	"Kanapou Bay, Kahoolawe. Small cave showing gypsum stalactites. 1913"	17	6
577(13)	Stokes	"Remains of an imu bottom, Kahoolawe. 1913. Fig. 3, p. 12, O.P. V3 (Flora of Kahoolawe)"	17	6
1203(169)*	Stokes	"Heiau near Hakioawa Bay, Kahoolawe. 1913. Looking Northeast, makai. McAllister's site 21, now site 350.	17	59
1205(170)	Stokes	"Heiau near Hakioawa Bay, Kahoolawe. 1913." Looking Northeast, makai. McAllister's site 21, now site 350.	17	59
1206(171)	Stokes	"Heiau near Hakioawa Bay, Kahoolawe. 1913." Looking Northwest, across gulch. McAllister's site 21, now site 350.	17	59
1209(172)	Stokes	"Heiau near Hakioawa Bay, Kahoolawe. 1913." Looking Southwest, mauka. McAllister's site 21, now site 350.	17	60
1210(173)	Stokes	"Koa makai of the heiau near Hakioawa Bay, Kahoolawe. 1913." Looking Northwest, across the mouth of the bay. McAllister's site 22, now site 348A.	17	60
1211(174)*	Stokes	"Poised stone in the middle of the north coast of Kahoolawe. 1913." Looking South (?), mauka. McAllister's site 46, now site .	17	60
1213(175)*	Stokes	"Koa at Hanakauaea [Hanakanaea] southwest end of Kahoolawe." McAllister's site 35, now site _.	17	60
1215[6?](176)*	Stokes	"Posed stone on the middle of the north coast of Kahoolawe." Looking Northwest, makai. The same or a similar photo in Forbes, 1913:13. McAllister's site 46, now site _.	17	60
1215(177)	Stokes	"Posed stone on the middle of the north coast of Kahoolawe, probably used as a koa. 1913." Closeup. McAllister's site 46, now site .	17	60
1217(178)*	Stokes	"Koa at Hanakanaea, southwest end of Kahoolawe. 1913." McAllister's site 35, now site .	17	61
2002	Brigham	"Skeleton of supposed ancient Hawaiian wrapped in kapa found by Mr. Stokes on Kahoolawe in Sept. 1914." From site 306, Kamohio shrine?	6	133
2003	Brigham	"Skeleton of supposed ancient Hawaiian wrapped in kapa found by Mr. Stokes on Kahoolawe in Sept. 1914." From site 306, Kamohio shrine?	6	135
2004	Brigham	"Skeleton of supposed ancient Hawaiian wrapped in kapa found by Mr. Stokes on Kahoolawe in Sept. 1914." From site 306, Kamohio shrine?	6	132

2005	Brigham	"Kapa bundle with Hawaiian skeleton, before being opened found by Mr. Stokes on Kahoolawe." From site 306, Kamohio shrine?	6	134
3236	Brigham	"Skeleton found on Kahoolawe by Mr. Stokes in 1914." From site 306, Kamohio shrine?	6	135
3385	Stokes	Photograph of Stokes' map of "Ko'a at Kealaikahiki, Kahoolawe." McAllister's site 44, now site .	3	50
3386	Stokes	Photograph of Stokes' map of "Ko'a at Hanakanaea Bay, Kahoolawe." McAllister's site , now site .	3	47
3387	Stokes	Photograph of Stokes' map of "Unnamed heiau, South side of Hakioawa Valley, Kahoolawe." McAllister's site 21, now site 350.	3	48
3545(480)	Stokes	"Old burial place at Hakioawa Bay, Kahoolawe. 1913." McAllister's site 23, now site 560.	18	24
3546(481)	Stokes	"Old burial place at Hakioawa Bay, Kahoolawe. 1913." McAllister's site 23, now site 560.	18	25
3547(482)	Stokes	"Old burial place at Hakioawa Bay, Kahoolawe. 1913." McAllister's site 23, now site 560.	18	25
15472(M1)	McAllister	"Lace-like tapa fragmrnt, showing zigzag or herring bone design of the whole piece. Also note perforations [perforations?] of different size. Kahoolawe." From site 306, Kamohio shrine.	49	66
15473(M2)	McAllister	"Tapa "water-mark", formed by rows of parallel lines at right angles to each other." From site 306, Kamohio shrine.	49	66
15474(M3)	McAllister	"Elongated, water-worn stones wrapped in tapa and leaves, which were probably considered sacred" From site 306, Kamohio shrine.	49	67
15475(M4)	McAllister	"Elongated, water-worn stones, which were probably "akua" stones wrapped in tapa (see 3 above). Chalk marks on two indicates depth to which they were standing in earth." From site 306, Kamohio shrine.	49	67
15476(M5)	McAllister	"Bundle offerings. The one on the left contains a sharp, thin basalt flake wrapped in leaves. The one on the right was a tobacco leaf wrapped in tapa. (see 6 below.)" From site 306, Kamohio shrine.	49	68
15476(M6)	McAllister	"Bundle offering which consisted of a tobacco leaf wrapped in two heavy tapa fragments. The scrunched up dark mess in the lower left hand end is the leaf. The bundle as it appeared unopened is shown in 5 above." From site 306, Kamohio shrine.	49	68
15478(M7)	McAllister	"A bundle offering of leaves, grass, fern, fish bones, coconut husk, sugar cane and a little tapa." From site 306, Kamohio shrine.	49	69
15479(M8)	McAllister	"Two bundle offerings, the one on the left consisting of tapa and flora (unopened) and the one on the right a gourd with one side broken which has been filled with tapa, fish-jaw and bones, small pieces of basalt and a sugar cane stalk, all of which is visible through the opening." From site 306, Kamohio shrine.	49	69
15480(M9)	McAllister	"Sticks wrapped in tapa and leaves." From site 306, Kamohio shrine.	49	70
15481(M10)	McAllister	"Fire making sticks. Those on the right, called <u>aulima</u> were held in the hand and rubbed rapidly to and fro in a groove on a piece of softer wood, called <u>aunaki</u> , shown on left." From site 306, Kamohio shrine.	49	71
59483*	Stokes	"Kahoolawe. Archaeological material." Shrine at cave, etc." Site 306. Twin akua stones in situ.		"Geography. Kahoolawe"Folder

59484*	Stokes	"Kahoolawe. Archaeological material." Shrine at cave, etc." Site 306. Three akua stones and sticks prior to excavation.	"Geography. Kahoolawe" Folder
59485*	Stokes	"Kahoolawe. Archaeological material." Shrine at cave, etc." Site 306. Three akua stones and sticks after excavation.	"Geography. Kahoolawe" Folder
59486*	Stokes	"Kahoolawe. Archaeological material." Shrine at cave, etc." Site 306. Overall view of cave and terraces.	"Geography. Kahoolawe" Folder
59487*	Stokes	"Kahoolawe. Archaeological material." Shrine at cave, etc." Site 306. Upright stone inside cave(?).	"Geography. Kahoolawe" Folder

Appendix Y

Wooden Images From The Kamohio Shrine Site

Complete Image:

A notation concerning this image was entered in the Ethnological Catalogue, held at the Anthropology Department of the Bishop Museum. It reads:

CATALOGUE NUMBER	ORIGINAL NUMBER	SPECIMEN	MATERIAL	DESCRIPTION	LENGTH OR HEIGHT
33St10-A1	8814	Idol	wood	[drawing]	43 1/2

WIDTH OR DIAMETER	THICK- NESS	WEIGHT	ACC. NO.	LOCALITY
8	3		1913 06	Kahoolawe, Kamohio Bay, "Shrine"

REMARKS	RECEIVED: FROM WHOM	HOW	DATE
Photo 925	J.F.G. Stokes	C	Mar. 1913

The following information is from a card on file in the Department of Anthropology, Bishop Museum.

"C.8814
Idol, wood
T18

(J.F.G. Stokes) C. 1913.

33 St 10-A2 7-18-'68
HH cs.23 4/77

A

Kahoolawe,
Kamohio Bay Shrine

photo
Neg. #925
PRCC #2413 8/83"

Dr. Adrienne Kaeppler, Curator of Oceanic Ethnology at the Smithsonian Institute, has been attempting to identify the various woods used in the crafting of Hawaiian images. She writes that; "Concerning the wood of the two Kaho'olawe figures, my notes say the following:

BM C8814 identified as Rubiaceae"

The genus Rubiaceae is commonly referred to as the coffee family.

Head of Wooden Image:

A notation concerning the image was entered in the Ethnological Catalogue, held at the Anthropology Department of the Bishop Museum. It reads;

CATALOGUE NUMBER	ORIGINAL NUMBER	SPECIMEN	MATERIAL	DESCRIPTION	LENGTH OR HEIGHT
? 3525		Image head	wood (Myoporum sandwichense?)	[drawing]	6 1/2"
WIDTH OR DIAMETER	THICKNESS	WEIGHT	ACC. NO.	LOCALITY	
4"	3"		1913 06	Kahoolawe, Kamohio Bay, "Shrine"	
REMARKS	RECEIVED: FROM WHOM	HOW	DATE		
	J.F.G. Stokes	C	Mar. 1913		

The following information is from a card on file in the Department of Anthropology, Bishop Museum.

C 3525		B
frag e	IMAGE head of wood - Myoprum sandwichense ?	
		H.I.
	J.F.G. Stokes (C).	Kahoolawe
		Kamohio Bay Shrine
HH cs.23 - 4/77		Photos: L 16,15 & 16
318 B	8/76	19248 - 15,16

Dr. Adrienne Kaeppler, Curator of Oceanic Ethnology at the Smithsonian Institute, has been attempting to identify the various woods used in the crafting of Hawaiian images. She writes that; "Concerning the wood of the two Kaho'olawe figures my notes say the following: BM C3525 has been tentatively identified as Aleurites." The Aleurites is the kukui, or candle nut tree.

Appendix Z

Kaho'olawe Ranch Personnel

The following is a preliminary list of the individuals who may have worked and lived on the island of Kaho'olawe as part of the ranching activities there.

Aina, Jack ["Jack" Aina Kailipalauli (Purple Skin)]: Foreman at the Kahoolawe Ranch from 1917 to around 1922. Aina appears to have been on the island, working for Eben Low during at least the later part of the Forest Reserve period. (reference to this can be found in a letter from C. Judd to Eben Low dated June 20, 1917 in the files of the Department of Land and Natural Resources, Division of Forestry and Wildlife) His brother, Lewai, worked for Louis von Tempski at the Haleakala Ranch. (Inez Ashdown's personal photo collection, copy at the State Historic Preservation Office, p.12).

Akina, Alexander B.: Alexander Akina was the third and youngest son of Benedictus Auhana Akina who worked for the Kaho'olawe ranch between (at least) 1899 and 1905. His mother was Hannah Pae, "a full-blooded Hawaiian". Alexander was born on Kaho'olawe April 27, 1904. "The family left Kahoolawe when Alexander was a year old because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) After leaving the island the family appears to have moved to Kihei, Maui. In 1955 Alexander Akina was described in an article in The Honolulu Advertiser as "a big time fisherman who is well known in Maui. He owns about 20 acres of land at Kamaole Beach Lots at Kihei." (The Honolulu Advertiser 8/4/1955:A4:c.2) His wife at that time was Violet Akina.

Akina, Anthony: Anthony Akina was the second son of Benedictus Auhana Akina who worked for the Kaho'olawe ranch between (at least) 1899 and 1905. His mother was Hannah Pae, "a full-blooded Hawaiian". Like his brothers John and Alexander, Anthony was born on Kaho'olawe. His family left the island around 1905, "because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) After leaving Kaho'olawe the family appears to have settled in Kihei, Maui. Anthony died some time before 1955.

Akina, Benedictus Auhana: Resident ranch manager on Kaho'olawe during the years 1901-1902 (possibly more), when B.F. Dillingham Company Ltd. held the lease. (W.F. Dillingham Letters from Kaho'olawe: 1901-1902). "Auhana" is mentioned regularly in the ranch ledgers from July 1899 to July 1902. (Kahoolawe Ranch Ledger 1899-1901) An article in The Honolulu Advertiser for August 4th, 1955 states that "Benedictus Auhana Akina, was half Hawaiian and half Chinese; he was a foreman on a sheep ranch owned by Eben Lowe [sic] on Kaho'olawe." (The Honolulu Advertiser 8/4/1955:A4:c.2) The article also states that Akina was married to Hannah Pae, "a full-blooded Hawaiian" and had three children; John, Anthony

and Alexander B. Akina, all of whom were born on Kaho'olawe. "The family left Kahoolawe when Alexander was a year old because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) That would have been in 1904, for Alexander was born on April 27, 1904. It would appear from all of this that Benedictus Auhana Akina worked on Kaho'olawe for the ranch from 1899 (and possibly before) to 1905. After leaving the island the family appears to have moved to Kihei, Maui.

Akina, John: John Akina was the eldest son of Benedictus Auhana Akina who worked for the Kaho'olawe ranch between (at least) 1899 and 1905. His mother was Hannah Pae, "a full-blooded Hawaiian". Like his brothers Anthony and Alexander, John was born on Kaho'olawe. His family left the island around 1905, "because his mother became very ill." (The Honolulu Advertiser 8/4/1955:A4:c.2) After leaving Kaho'olawe the family appears to have settled in Kihei, Maui.

Conradt, Christian C.: Purchased lease of Kaho'olawe from B.F. Dillingham Co. in 1903 with the intention of raising sheep on the island and commercially fishing its offshore waters. (Maui News, 1/16/1904, p.3, c.3). He sold the lease in 1906 to Eben P. Low. (Judd, 1916, p.119).

Cook, E.: In 1866, E. Cook was a young girl living on Kaho'olawe with her family. Her father (I. Cook) was an American working as a shepherd for E.H. Allen. Her mother was a Hawaiian woman, probably not a native of Kaho'olawe. She had one brother, I.E. Cook. E. Cook was less than 15 years old when the census was taken in 1866. (Census schedules in AH file, "Lahaina 1866").

Cook, I.: An American resident on Kaho'olawe in 1866. In the census of that year he is listed as being a married male over 40 years of age with a Hawaiian wife and two children, a boy and a girl. Cook apparently worked as a shepherd for E.H. Allen who then owned the lease of the island. (Census schedules in AH file, "Lahaina 1866").

Cook, I.E.: Born after 1851, I.E. Cook was a young boy living on Kaho'olawe with his family during the census of 1866. His father, I. Cook, worked as a shepherd for E.H. Allen who then controlled the lease of the island. I.E. Cook's mother was Hawaiian, though probably not a native of the island. He had one sister. (Census schedules in AH file, "Lahaina 1866").

Cook, Mrs.: A Hawaiian woman, the wife of I. Cook, who was recorded as living on Kaho'olawe during the census of 1866. Mrs. Cook, a woman of between 15 and 40 years of age, is listed as having two children, a boy and a girl, both under 15. Her place of birth is not recorded. (Census schedules in AH file, "Lahaina 1866").

Cummins, William H.: A resident of Wailuku, Maui who took over the lease of Kaho'olawe from Elisha H. Allen in 1880 with his partner Albert D. Courtney. (State Land Management Office-Record of Leases:I). In 1884 he is mentioned as proprietor of the "KAHOOLAWE STOCK RANCH. (McKenney Directory Co. 1884: 337).

Daniels, W.H.: In 1884, Daniels is noted as being the manager of the "KAHOOLAWE STOCK RANCH. (McKenney Directory Co. 1884: 337).

Deverill, Alfred: Listed in the 1894-5 City Directory as "rancher, Kahoolawe". (Husted 1894-5, p.371).

Gay, Thomas William: Evidently acted as the on island manager for Randall Von Tempsky's cattle ranch on Kaho'olawe in 1889. (Postmaster General-Incoming Correspondence: 11/15/1889).

Hillebrand: "Brother of D." who in 1859 was hired by E.H. Allen "to go to Kahoolawe and take care of the sheep". (R.C. Wyllie Private Col.: 5/16/1859). He appears to have accompanied William Webster on his inspection of the island. (R.C. Wyllie Private Col.: 5/15/1859).

Kaaihue, Kalua: An eighteen year old Hawaiian boy who was marooned on Kaho'olawe for three months in 1910. The boy, a shepherd working for Eben Low, was "forgotten" on the island by the ranch foreman, Maikai. After waiting for months at the ranch, he moved to "Hakiawa" to flag down passing ships. He was rescued by the fishing boat "Maui Maru". (The Sunday Advertiser, 8/28/1910, p.1, c.4).

Kalaeiva: A Hawaiian ranch hand who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1901 and 1902. He is mentioned in the ranch ledgers as being payed on April 16th 1901, July 1901 and October 1901. (Kahoolawe Ranch Ledger 1899-1901)

Keouihana: A ranch hand who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1899 and 1900. Kimeona is mentioned in the ranch ledgers as being payed on July 1899, April 1900 and September 1900. (Kahoolawe Ranch Ledger 1899-1901)

Kimeona: A Hawaiian man who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1899 and 1902. Kimeona is mentioned in the ranch ledgers as being payed on July 1899, April 1900, July 24th 1900, September 1900, January 28th 1900, July 1901, October 1901 and July 1902. (Kahoolawe Ranch Ledger 1899-1901)

Kimoeko, Keanini: Captain of the sampan "Heeia Maru", which was owned by the Oahu Shipping Co.. He died of injuries sustained when a small boat he was rowing was tossed up onto the beach at Kuheia, and he was crushed beneath it. The accident occurred on January ___th, 1919, when Kimoeko was unloading supplies for the ranch. He died two days later of internal injuries. (Maui News, 1/24/1919, p.1, c.2). Kimoeko was buried on the ridge above Kuheia near the ranch foreman's house. (David Pedro, pers. comm.).

Lewis: "a Frenchman who is chief of Kahoolawe; he is a pleasant and generous acquaintance." This description is given by a journalist for the Hawaiian language newspaper "Ka Lahui", who accompanied King Kalakaua on his visit to Kaho'olawe in 1875. (Ka Lahui Hawaii, 12/30/1875, p.4, c.2).

Low, Eben P.: Low: Purchased the lease of Kaho'olawe from C.C. Conrard in 1906. (Judd, 1916, p.119). Low is described

as "a well-known citizen of Honolulu, one of the city supervisors." (The Sunday Advertiser, 1/14/1912).

Luka: A Hawaiian woman who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. between 1899 and 1902. Luka is mentioned in the ranch ledgers on July 1899, July 1901, October 1901 and July 1902. (Kahoolawe Ranch Ledger 1899-1901)

MacPhee, Angus: Leased Kaho'olawe for ranching from 1917 to 1941 when the island was taken over by the U.S. Military. From 1920 on he leased in partnership with Harry Baldwin. MacPhee was born in Wyoming, August 9th, 1874. He arrived in Hawaii in December of 1907, and in 1908 took a job with the Ulupalakua Ranch on Maui. (Inez Ashdown personal photo collection, copy in State Historic Preservation Office).

Maikai: Bronco buster and foreman of Kaho'olawe Ranch in 1910, when it was under lease to Eben Low. (The Sunday Advertiser, 8/28/1910, p.1, c.4). Charles Forbes, in his Note on the Flora of Kahoolawe and Molokini (Forbes, 1913:9), writes that "Mr. Maiki, the caretaker, tells me that with his son he has shot many pigeons which had corn in their crops, and hence, had probably flown across the channel from Kula, Maui." The "Mr. Maiki" Forbes refers to is most likely Maikai.

Mortensen, Hans: Mortensen appears to have been hired by Christian Conradt to work on the sheep ranch that Conrad ran on Kaho'olawe. An article in The Honolulu Advertiser of July 24th, 1955 states that; "He took his wife and four children to Kahoolawe in 1902...He stuck it out for three years. The other members of the family [children]who lived on Kaho'olawe were Olivia (Mrs. John C. Cluney), Clara (Mrs. Clara Willis) and Hans Mortensen Jr. [and Carl N. Mortensen]. All now live in Honolulu." (The Honolulu Advertiser 7/24/1955:A5:c.1)

Noah: A Hawaiian man who worked on Kaho'olawe for the B.F. Dillingham Company Ltd. in 1901. Kimeona is mentioned in the ranch ledgers as being payed on January 1901 and July 1901. (Kahoolawe Ranch Ledger 1899-1901)

Pickard, Tom: A possible resident on Kaho'olawe in 1903. (Maui News, 5/23/1903, p.4, c.3).

Togo: A Japanese laborer on Kaho'olawe in 1910, when the ranch lease was owned by Eben Low. (The Sunday Advertiser, 8/28/1910, p.1, c.4).

Wallace, Robert: Apparently the manager of the Kynnersley-Von Tempsky interests on Kaho'olawe in 1888. (Int. Dept. Land File: 3/5/1889).

Appendix AA

Ranching Structures On Kaho'olawe

The following is a descriptive list of the various ranching structures built on the island of Kaho'olawe, with the exception of those constructed at the ranch headquarters within the valley of Kuheia.

Hakioawa

Well: This stone-lined, masonry curbed well, 18 feet in depth, was dug by the Kynnersley Brothers at some time before 1892. (Stearns 1940:130) It appears to have provided water suitable for stock until about 1900. (Stearns 1940:131) The well has recently been cleared out and rests today in a fenced off garden area on the soil flat just back of the Ohana camp.

Windmill: This windmill appears to have been used to pump water from the well. It was in disrepair in 1939 when Stearns visited the island. (Stearns 1940:130) No trace of it survives today.

Troughs: One of more drinking trough for stock were formerly located in Hakioawa. They were apparently supplied with water pumped up from the well by the windmill. (Stearns 1940:130)

Structures: A small, wood framed house formerly stood in a fenced compound on the valley floor in the southern gulch, near where the Navy camp is located. A smaller wooden shed stood at the foot of the southern slopes just below site 350 heiau . It is also possible that there was a thatched structure at the foot of the southern slope just below site 358 heiau . All of these structures are visible in a photograph taken of the valley at some time in the late 1890s (Bishop Museum Neg. No. CP104,221). These structures had disappeared by the time J.F.G. Stokes visited the bay in 1913. It is possible that they were burnt to the ground back in 1906 when the schooner Olga went ashore off Hakioawa. Stokes writes in his notebook that; "This house the capt. of the vessel is reputed to have set on fire to attract attention." (Stokes 1913:I:6) A stone edged foundation (site 481, feature E?), situated on the valley's central ridge just up slope of the structures shown in the 1890s photograph, also appears to date from the ranch period. Around this small, sunken foundation are scattered sheets of iron and other historic artifacts, suggesting that it may have served as a shed.

Trail: A stone curbed road/trail led up the southern slope of the central ridge from the site of the old ranch structure to the crest of the ridge. The remains of it are still visible today.

Wiliwilipeapea

Reservoir: A 400,000 gallon cement cistern, formerly roofed over and fed by a cement flume, was built in this gulch during the Baldwin & MacPhee era. (Stearns 1940:129) A map on file in the Hawaii State Survey Office [Case 10, hole 50] records the presence of a "Reservoir" in this area. This notation appears to have been added to the map, possibly by T.T. Dranga, a collector of land snails who visited Kaho'olawe in 1925. (his collections are recorded in the Malacology Notebooks in the Malacology Department of the Bishop Museum).

Hanakanaia

Goat Pen: In his listing of archaeological sites present on Kaho'olawe in 1931, McAllister describes a "(?) Goat pen, in the dry stream bed, southeast end of Hanakanaea Bay. Foundation stones of an inclosure 60 by 130 feet. A roadway appears to run from this structure up the slope to a "tank" [the cistern at Wiliwilipeapea] which is slightly more than a mile away. The inclosure, which is hardly more than a line of stones, is undoubtedly what remains of the goat pen formerly located at the south end of this bay. The roadway adjoining is modern." (McAllister 1933:53) This pen does not appear to have been located during the 1976-80 archaeological survey of the island.

Ahupuiki

Corral: A large, stone walled enclosure stands on the valley floor against the western slope of Ahupuiki gulch (Site 670, feature C). This structures appears to have been a holding pen for livestock. A gate, the rotted wooden posts of which are still visible, stands at its eastern end, suggesting that sheep were driven down the gulch and corralled into the enclosure.

Working Area: Adjacent to this corral is a walled in area which appears to have been a working are (Site 670, features A & B). A small terrace set along its western edge may have at one time supported a shed. Bottle glass was found in this area.

Pump: Our only evidence for the existence of this pump comes from a map of Kaho'olawe, presently held at the Hawaii State Archives [117.1-KAH-4]. This map, a copy of the 1911 Territory survey map of the island, includes a number of place names written in with an orange grease pencil. A noted in the lower right hand corner indicates that these are "Names by C.C. Conradt". Christian Conradt held the lease for Kaho'olawe and raised livestock on that island from 1893 to 1906. One of these penciled in names reads "ahupu iki (Pump)". This notation, however, has been placed west of Ahupuiki, near Kalama bay. A number of other place names on this map are mislocated, and it seems likely that the note is more accurate than its placement, and that there was a pump at Ahupuiki some time between 1893 and 1906.

Ahupu

Well: A 33 foot deep well was dug by the Kynnersley Brothers at Ahupu some time before 1892. (Stearns 1940:130) Angus MacPhee reported that he drank potable water from the well in 1917. (Stearns 1940:131) The water was probably pumped up by hand, as part of a pump shaft was found in the valley by members of the 1976-80 archaeological survey.

Windmill: The existence of this windmill is suggested by the notation on a map of Kaho'olawe, presently held at the Hawaii State Archives [117.1-KAH-4]. This copy of the 1911 Territory survey map of the island, includes a number of place names written in with an orange grease pencil. A noted in the lower right hand corner indicates that these are "Names by C.C. Conradt". Christian Conradt held the lease for Kaho'olawe and raised livestock on that island from 1893 to 1906. Among these penciled in names is one which reads "ahupu nui (old wind mill)". Conradt appears to be suggesting that a windmill (probably used to draw water from the well) once stood at Ahupu. No trace of the windmill survives today.

Houses: Along the western side of Ahupu gulch lie the remains of a number of structures which appear to have been part of a ranch house complex. The stone foundations of these building (Site 123, features B,C,D,E,F,G,H,I,J,K,U) cover the floor of the gulch at the foot of its western slopes. They have a very "European feel" and do not resemble traditional Hawaiian house terraces. A number of historic artifacts; including bottle glass, ceramics, a glass button and an iron pump shaft, were found amongst the foundations. The presence of these artifacts suggests the site was a living area for the ranch, and may have been the original ranch house area set up in the 1850s. W.H. Allen, in his 1858 report to R.C. Wyllie (Appendix R), had suggested that Ahupu was a good landing.

Trail: A stone curbed road/trail leads up the southern slope of Ahupu gulch from the area of the ranch house to the ridge crest. It probably originally continued across the ridge and down into Ahupuiki to the site of the holding corral.

Flume: This stone and cement flume was build by McPhee to channel water into the cistern he had set up on the flats at Ahupu (Site 123, feature X). The flume feeds off the stream. It ends inland of the cistern, but remnants of a wooden flume which formerly linked it to the cistern are still visible.

Reservoir: The crumbled remains of a 600,000 gallon cement cistern stands on the valley floor at Ahupu (Site 123, feature W). (Stearns 1940:129) It was build during the McPhee & Baldwin era. The presence of this "Reservoir" is noted on a map in the Hawaii State Survey Office [Case 10, hole 50]. The notation on this map appear to have been added by T.T. Dranga, a collector of land snails who visited Kaho'olawe in 1925. (his collections are recorded in the Malacology

Notebooks in the Malacology Department of the Bishop Museum). It is also shown on the U.S. Geological Survey map of 1926. **Trough:** A cement water trough stands just seaward of the cistern, and was probably originally fed by it (Site 123, feature V).

Kaulana

Well: Harold Stearns reports the existence of a ranch well built by Von Tempsky and formerly equipped with a pump somewhere within the valley of Kaulana. (Stearns 1940:130) A map in the Hawaii State Survey Office [Case 10, hole 50], marks the location of an "Old well", towards the back of Kaulana gulch. Its location appears to have been marked on this map by T.T. Dranga, a collector of land snails who visited Kaho'olawe in 1925. (his collections are recorded in the Malacology Notebooks in the Malacology Department of the Bishop Museum).

Papaka

Water Tanks: Two 10,000 gallon wooden tanks formerly stood in Papaka bay; one along the eastern edge of the beach and the other out on the eastern point (Site 180, Features D & E). They appear to have been built during the time that Angus MacPhee operated the Kaho'olawe ranch. Iron piping connected the two. They were used to hold water brought over by boat from Maui. (Stearns 1940:129) Both are plainly visible in a photograph of the bay taken by E. H. Bryan in 1931 (Bishop Museum Neg. No.16586). The remains of the tank on the beach (Feature D) are still visible, but the one at the point (Feature E) has been reduced to a pile of iron hoops. One of these water tanks (the one situated out on the point) is marked as "Water Tank" on a map in the Hawaii State Survey Office [Case 10, hole 50]. The notation on this map appear to have been added by T.T. Dranga, a collector of land snails who visited Kaho'olawe in 1925. (his collections are recorded in the Malacology Notebooks in the Malacology Department of the Bishop Museum). It is also shown on the U.S. Geological Survey map of 1926.

Trough: A cement drinking trough lies just west of the surviving tank. It appears originally to have been fed by the two tanks, but now is almost completely buried by sand.

Papakaiki

Corral: On the floor of Papakaiki gulch, just west of the stream, stands a stone walled corral (Site 187, feature A).

Shed?: Adjacent to the corral are the remains of what may or may not have been a ranch structure (Site 187, feature B). All that remains are a few stone alignments and some midden. No historic artifacts were found at the site.

Appendix AB

The Chants Of
Harry Kunihi Mitchell

Deep Chant of Kaho'olawe
by Harry Kūnihi Mitchell

To those who read the newspaper Ka Makani Kahaukane:

Here written below is an ancient chant pertaining to the island of Kaho'olawe. I heard this chant from the lips of my ancestors in the days of my youth. This is an old chant from the beginning of creation. Perhaps some of you have heard this chant. Please, out of your generosity, send a story to this newspaper. Because, we are Hawaiian, and this is a Hawaiian newspaper, and so we, the young, can better understand and appreciate our language and culture, and the knowledge of our ancestors.

Here are the names of Kaho'olawe, from the beginning of time,

1. Kohemalmalama - To your left and lit up.
2. Kanaloa - One of the four major gods
3. Hineli'i - Light rain
4. Kahiki Moe - Where the sun sets
5. Kaho'olawe - To take and to embrace

The meaning of this mysterious chant is hidden, but I will try to interpret it for you, the natives of Hawai'i.

Introduction: Deep Chant pertaining to the island of Kaho'olawe
Introductory Call: "Ūina", Listen to the conch shell.

1. Dawn is breaking.
2. Two double-hulled canoes are sighted.
3. The men cheer from the canoe.
4. Land is sighted.
5. To your left it is like heaven all lit up.
6. We dedicate this island to Kanaloa.
7. God of the shallow and deep ocean.
8. We are running in an erratic current.

9. The wind is blowing from all directions.
10. The chief's child is crying.
11. The island of Molokini is shaped like the navel of Kanaloa.
12. The channel between Molokini - Kanaloa and Maui Kahiki Nui is shallow.
13. Dust is spreading over Mount Moa'ula.
14. Gathering place of the kahuna classes to study astronomy.
15. Stone of deep magic of Keaweiki.
16. The wind is chilly.
17. Light rain is falling.
18. The sun is setting towards Kahiki.
19. The glow after the sunset is like the colors of the rainbow.
20. The world seems to be standing still.
21. We shall no more labor on the ocean.
22. My thoughts are enlightened towards God.
23. My love for this land will always be deep within my heart.
24. I love the knowledge and power of my ancestors.

Your Humble Servant.

Harry Kūnihi Mitchell

Oli Kūhohonu o Kaho'olawe Mai nā Kūpuna Mai
na Harry Kūnihi Mitchell

E nā makamaka heluhelu o Ka Makani Kahaukāne:

Eia i kākau 'ia ma lalo nei he oli kūhohonu e pili ana iā Kaho'olawe. He oli kēia i lohe pepeiao 'ia i ku'u wā 'ōpio. He oli kahiko loa kēia. Ua lohe paha 'oukou i kēia oli. E 'olu'olu 'oukou, mai ko 'oukou lokomaika'i mai, e ho'ouna mai e kekahi mo'olelo i kēia pepa. No ka mea, he Hawai'i kākou, a he nū pepa Hawai'i kēia, a hiki nō paha iā 'oukou ke 'ike i ka mana o nā kūpuna.

Eia nā inoa o ka moku o Kaho'olawe mai kinohi mai:

1. Kohemalamalama.
2. Kanaloa
3. Hineli'i
4. Kahiki Moe
5. Kaho'olawe

Oli Kūhohonu Kāpilipili Ho'ohihia e Pili ana i ka Moku 'o Kaho'olawe
Kahea: Ūina. Kaulona i ka pū waikaua

1. Wehewehe mai nei kahi ao
2. Kū mai nā wa'a kaulua
3. Pūē ke kanaka mai ka wa'a mai
4. Kūkulu ka iwi o ka 'āina
5. 'Ailani Kohemalamalama
6. Ho'ohiki kēia moku iā Kanaloa
7. Akua o ka moana 'ili, moana uli
8. Ke holo nei me ke au kāhili
9. 'Ōhaehae mai ka makani
10. Alala keiki pua ali'i
11. Ka piko hole pelu o Kanaloa
12. Kahua pae 'ili kīhonua Ehua
13. Puehu ka lepo o Moa'ula

14. Pu'uhonua mo'okahuna kilo pae honua
15. Pōhaku 'ahu 'aikūpele kāpili o Keaweiki
16. Kūalilua ka makani ke hae nei
17. Kāwele hele nei o Hineli'i
18. Napo'o ka lā i Kahiki Moe
19. Nue mai ke ao Lanikau
20. Kāpū mai ka honua kūpa'a loa
21. Pau ka luhi 'ana o ka moana
22. Mana'o hālana pū i ke Akua
23. He aloha pili kau no kēia 'āina
24. Aloha nō ka mana o nā kūpuna

Aloha Piha me ka Ha'aha'a,

Harry Kūnihi Mitchell

The Spring Waters of Kamohio on Kaho'olawe

I am revealing the story I heard from my Kūpuna Kealoha Kūlike about the Priest Kahuna Kamohio and of his knowledge of his ancestor's teaching of creation and of the spring waters on the east end of Kamohio Bay on Kaho'olawe.

Revelation

1. From the source from heaven above
2. The eyes of the God Lonoka'eho who stands on the rainbow
3. Whose knowledge comes from the creation of Tahiti
4. Born from the Kahuna class of Moa'ulanuiākea
5. With deep knowledge of his ancestors' teaching
6. And from the east bend of Kamohio Bay
7. Spring forth the flower waters of Kanaloa
9. Which is hidden high in the cliff
10. It is cool and refreshing to drink
11. The trail leading to the springs is dangerous to traverse
12. The Pillar rock above is like a red owl
13. The presence of the god Wākea towards the land brings good feelings
14. The heavens declare the tabu on Kanaloa - Kaho'olawe
15. The rain is creeping over the land and looks reddish
16. The wind is stirring up white caps on the ocean
17. The wind is blowing from three different directions
18. The ocean is covered with whitecaps
19. It's beginning to get dark over the land
20. The evening star is slowly appearing
21. Follow by stars from West-South-North and East
22. I love this island of Kanaloa - Kaho'olawe

Me ke aloha

Harry Kunihi Mitchell

Nā Wai Puna o Kamohio no Kaho'olawe

Ke hō'ike nei wau i ka mo'olelo kib honua mo'okahuna kumapa'a Po'o Ki'eki'e
o Kamohio, ka mole o ke ^{kumu} uli o nā kūpuna no Kanaloa Huli Honua ka pae
moku 'o Kaho'olawe.

Uina Ha'i

1. Mai ke kumu o Lani Kau
2. Ka maka o Lonoka'ehokūānuenuē
3. E pili i ke kumu o Kahiki
4. Ke kumu o Moa'ulanuiākea i hānau 'ia
5. Kumu uli pa'a o nā kūpuna
6. Mai ke kihi o ka hono 'o Kamohio i hikina
7. Ka wai puna pua o Kāne
8. Me ka wai he'e o Kanaloa
9. Nā wai wili lua ke kau nei
10. Kaulilua i ka pu'u ke 'apu iho
11. Nihi pali ke alo o nā wai
12. Kūnananana ka pōhaku kau pueo 'ula
13. Mai ke alo o Wākea ho'ohaulani moku 'i'o
14. Kū hā'ililani kapu o Kanaloa
15. 'Ulalena ka ua ke nihi nei
16. Kūkū ka 'ale o ka makani
17. Hololua holopili holokake
18. Kūākea ka 'ili o ka honua
19. Mōlehulehu ke alo o ka honua
20. Hele nāhe ka hōkū ke kau nei
21. Mai Komohana - Kūkulu-hema - Kūkulu-'ākau - Hikina
22. Naue rai ke aloha no ka 'āina Kanaloa - Kaho'olawe

Me ke aloha

Harry Kūnihi Mitchell

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