

**Final–Cultural Impact Assessment for the Kamakou Preserve,
Kawela and Makakupa‘ia Ahupua‘a, Kona District, Island of
Moloka‘i, Hawai‘i**

TMK: (2) 5-4-003:026



“Nani ka lala pali o Kaunuohua” (The slanting cliff of Kaunuohua is beautiful) (Lohiau 1861).
Pelekunu Lookout, the mountain Kaunuohua is to the right. *Photo by Steven Eminger.*

Keala Pono 

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Management Summary

A cultural impact assessment was completed for The Nature Conservancy's 2,774-acre Kamakou Preserve on the island of Moloka'i, County of Maui, State of Hawai'i. The preserve encompasses the *mauka* portions (above approximately 3,000 feet, ~900 m, elevation) of two adjacent *ahupua'a*, Makakupa'ia and Kawela, in the Kona District of the island. The cultural impact assessment consists of background research on land use, *mo'olelo*, and previous archaeology in the area, as well as a site visit summary and an ethnographic survey with three interviews.

Kamakou was and continues to be a special place, with a diversity of flora, fauna, and other natural resources present. Evidence of cultural resources is harder to come by, however, as no formal archaeological surveys have taken place in the preserve. It can be assumed that Hawaiians frequented the area for its abundance of natural resources. Bird hunting, wood harvesting, and plant gathering were likely uses of the area. In the historic era, the preserve was utilized for sandalwood harvesting, hunting, as collecting grounds for botanists and biologists, and for water resources. Today Kamakou is still used for gathering of plants and for hunting. The Nature Conservancy plans to install an ungulate control fence to add to the current fences in the preserve. Ongoing management of the area includes activities such as weed suppression and animal control. Results of this study indicate that the cultural impact of The Nature Conservancy's present activities in the preserve is negligible.

Contents

Management Summary	i
List of Figures	v
List of Tables.....	vi
INTRODUCTION	1
ENVIRONMENTAL AND CULTURAL BACKGROUND	2
Environment	2
Cultural Background.....	14
Place Names	14
‘ <i>Ōlelo No ‘eau</i>	19
<i>Mele</i>	22
Traditional Land Use.....	39
Historic Period Land Use	42
Previous Archaeology	57
KAMAKOU PRESERVE SITE VISIT	58
Road’s End	60
Return Over the Ridge.....	65
ETHNOGRAPHIC SURVEY	69
Cultural Impact Assessment Standards	69
Methods	69
Consultant Background	70
William “Billy” Akutagawa	70
Penny Rawlins Martin.....	71
Joseph “Joey” Joao, III.....	71
Topical Breakouts of Oral History Interviews.....	71
The Past: Pre-Contact Kamakou	73
The Past: Post-Contact Kamakou.....	75
The Present.....	78
SUMMARY.....	85
Cultural Resources, Practices, and Beliefs Identified.....	85
Effects of the Proposed Project/Community Input and Concerns	85
Confidential Information Withheld	86
Conflicting Information.....	86
Proposed/Potential Physical Alterations and/or Isolation/Alteration of Resources.....	86
Recommendations/Mitigations	86
GLOSSARY	88
REFERENCES	95
APPENDIX A: GUIDELINES FOR ASSESSING CULTURAL IMPACTS.....	99
APPENDIX B: A BILL FOR ENVIRONMENTAL IMPACT STATEMENTS	107
APPENDIX C: ACT 50	111

Contents

APPENDIX D: AGREEMENT TO PARTICIPATE	115
APPENDIX E: CONSENT FORM	119
APPENDIX F: TRANSCRIPT RELEASE FORM	123
APPENDIX G: INTERVIEW WITH BILLY AKUTAGAWA.....	127
APPENDIX H: INTERVIEW WITH PENNY MARTIN	139
APPENDIX I: INTERVIEW WITH JOEY JOAO	157

Figures

Figure 1. Map of the Kamakou Preserve showing existing and proposed fence lines	1
Figure 2. The Kamakou Preserve showing boundary, prominent peaks, roads, trails	3
Figure 3. View of the east Moloka‘i mountains from the Nature Conservancy office.	3
Figure 4. Location of Kamakou Preserve on Moloka‘i showing bordering owners	5
Figure 5. Kamakou Preserve’s vegetation zones and natural communities	5
Figure 6. Endangered birds found in Kamakou	9
Figure 7. The ‘i‘iwi (<i>Vestiaria coccinea</i>). Lithographs by Frederick William Frohawk.....	10
Figure 8. <i>Partulina mighelsiana</i>	12
Figure 9. <i>Partulina proxima</i>	12
Figure 10. <i>Partulina redfieldii</i>	13
Figure 11. <i>Partulina tessellate</i> , with 16 and 18 from Makakupa‘ia.....	13
Figure 12. <i>Perdicella helena</i>	14
Figure 13. Government survey map of the project area (Monsarrat 1886).....	15
Figure 14. Another of Mansarrat’s maps (1895).....	15
Figure 15. Historic-era map by Dodge et al. (1897).....	16
Figure 16. American Sugar Company map (Lindgren 1900).....	16
Figure 17. Portion of a 1924 USGS map.....	17
Figure 18. Portion of a 1993 USGS map.....	17
Figure 19. Location of Hanakalilolilo (Borcherding 1906).....	18
Figure 20. Sandalwood pit, Ka Lua Moku, in the Moloka‘i mountains.	46
Figure 21. Primary non-native overstory trees within the Moloka‘i study area	48
Figure 22. Descriptive statistics for vegetation in the project area	49
Figure 23. Kamoku Pool (Cooke 1949:34)	53
Figure 24. Kamoku Cabin 1915 (Cooke 1949:12).....	53
Figure 25. The Kamoku cabin (Cooke 1964).....	55
Figure 26. Hoa, or Black Mamo (<i>Drepanis Funerera</i>), drawn from a Moloka‘i specimen	55
Figure 27. The Kawela Intake (Cooke 1949:32).....	57
Figure 28. View from the Nature Conservancy vehicle of road conditions	58
Figure 29. Road conditions in the Kamakou Preserve as observed during the site visit	59
Figure 30. Trail route of January 19, 2011 site visit	59
Figure 31. Detail of trail route shown in previous figure	60
Figure 32. Misaki after leaving the road and heading down the initial descent of the trail.....	61
Figure 33. Fractured stone probably from building the switchback trail	61
Figure 34. First bridge encountered crossing the west fork of Kawela gulch	62
Figure 35. Misaki entering the hand-dug tunnel between east and west Kawela gulches.....	63
Figure 36. The dry end of the tunnel.....	63
Figure 37. Exiting the tunnel and looking back into the tunnel at the entrance in the distance	64
Figure 38. Second bridge encountered. This one crosses the east fork of Kawela gulch.....	64
Figure 39. East Kawela Stream looking down (south) from the cement bridge.....	65

Figures

Figure 40. Misaki heading up the switchback trail over the ridge	66
Figure 41. Pu‘u Kolekole in the distance and the island of Lanai beyond	66
Figure 42. View from the top of the ridge between east and west Kawela gulches	67
Figure 43. Misaki descending the trail on the west side of the ridge	67
Figure 44. Returning over the first bridge crossing the west fork of Kawela gulch.....	68
Figure 45. Billy Akutagawa (right), with Keala Pono ethnographer Mina Elison (left)	72
Figure 46. Penny Martin.....	72
Figure 47. Joey Joao.....	73

Tables

Table 1. Kamakou Preserve Place Names from Early and Recent Maps.....	19
Table 2. List of Organizations and Individuals Contacted for Oral History Interviews.....	70

Introduction

At the request of The Nature Conservancy (TNC), Keala Pono Archaeological Consulting, LLC conducted a Cultural Impact Assessment for the Kamakou Preserve on the island of Moloka'i. TNC is considering adding an ungulate control fence to the network of existing fences in the preserve (Figure 1), and this study was designed to identify cultural impacts associated with TNC's management of the area, including installation of the proposed fence.

The report begins with a description of the project site and an historical overview of land use, Hawaiian traditions, and archaeology in the area. The next section provides details of a site visit to the preserve. Summaries of three interviews are presented next, followed by the Cultural Impact Assessment. Project results are summarized and recommendations are made in the final section. Hawaiian words are defined in a glossary, and appendices at the end of the report present documents associated with the ethnographic survey and full transcripts of the interviews.

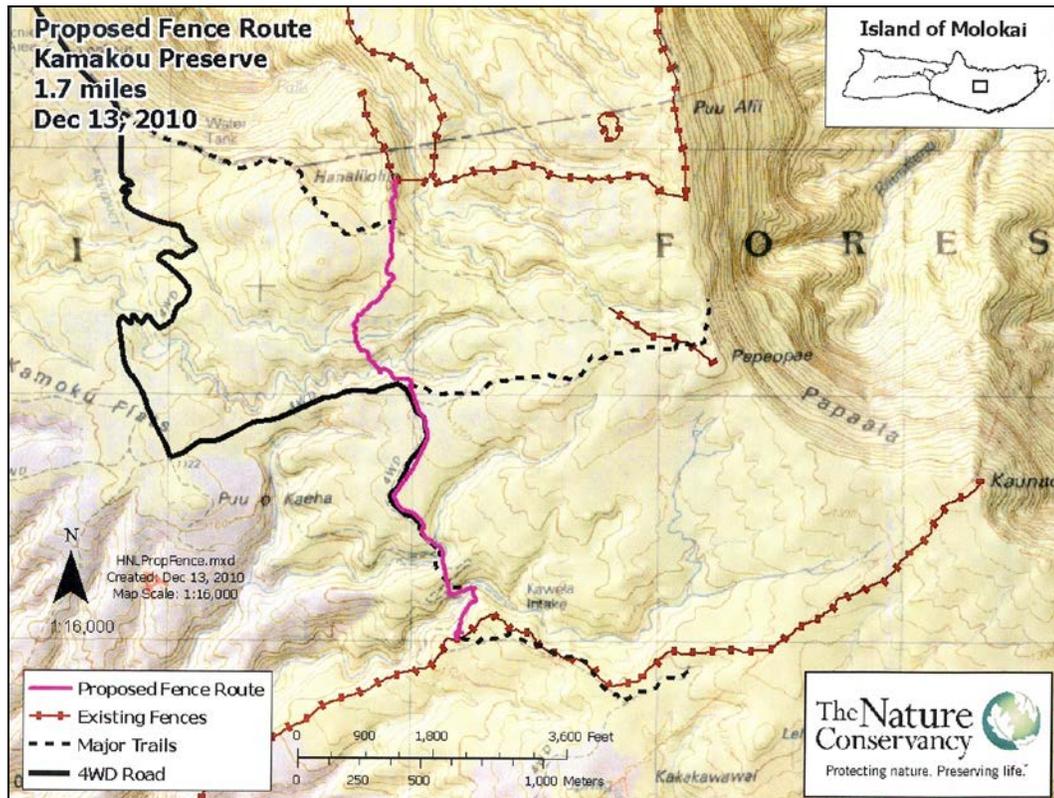


Figure 1. Map of the Kamakou Preserve showing existing and proposed fence lines.

Environmental and Cultural Background

Located in the uplands of the Moloka‘i mountains, little material evidence exists for traditional use of Kamakou. The area is rich in natural resources, however, and it was undoubtedly a place where Hawaiians came for bird catching, wood harvesting, gathering of plants, and as a thoroughfare into Pelekunu Valley. ‘*Ōlelo no ‘eau* and *mele* illustrate that Kaunuohua was a storied and beloved peak. In the historic era, the preserve was used for sandalwood harvesting, hunting, as collecting grounds for botanists and biologists, and for water resources.

Environment

The Kamakou Preserve is located in the east Moloka‘i mountains and encompasses the *mauka* portions (above approximately 3,000 feet, or 900 m, elevation) of two adjacent *ahupua‘a*, Makakupa‘ia and Kawela (Figure 2). The preserve takes its name from the highest peak on Moloka‘i, Kamakou (4,970 feet, 1,514 m), which lies just outside the preserve to the east (Figure 3). The highest peak within the preserve is legendary Kaunuohua (4,535 feet, 1,382 m), marking the easternmost boundary.

The Kamakou Preserve is owned by Moloka‘i Ranch and contains 2,774 acres (1,123 ha). This area was previously part of the State’s Moloka‘i Forest Reserve “under a surrender agreement with the landowner, Moloka‘i Ranch, Ltd.” (TNC 2006:6). In 1982 TNC obtained a permanent conservation easement over the area from Moloka‘i Ranch. The Nature Conservancy’s *Long Range Management Plan, Fiscal Years 2007–2012* includes details regarding this easement:

This easement ensures the Conservancy’s rights to manage the preserve for the benefit of native species and ecosystems, and prohibits a wide range of potentially unsuitable activities by the landowner. The document also reserves certain rights for the landowner, including the right to enter and inspect, and to harvest surface water from the established water development systems, which may be expanded within clear limits described in the easement. (2006:6)

In 1995 the Kamakou Preserve entered the State’s Natural Area Partnership Program (NAPP), a program that “aids private landowners in the management of their native ecosystems” (TNC 2009:3). One of the qualifications for participation in this program is that the lands have been “permanently dedicated to conservation” (Hawaii Revised Statute 195-6.5). The Nature Conservancy’s conservation strategy is to “reduce feral ungulate damage, limit the spread of non-native, habitat-modifying plants, and prevent wildfire” (TNC 2006:6).

Access to this mountainous area is via an unpaved road, by foot, or by helicopter. This main access road is part of the State of Hawai‘i Na Ala Hele trail and access system as established by a Memorandum of Understanding with the Department of Land and Natural Resources. Within the preserve itself are jeep roads and foot trails in differing states of repair. The Pēpē‘ōpae Boardwalk, begun in 1985 and completed in 1990, provides low-impact pedestrian access through the bog and native forest. Other infrastructure includes a small cabin owned by the State Division of Forestry and Wildlife (DOFAW) near Pu‘u Kolekole, ungulate control fences, and a water intake and pipeline owned by Moloka‘i Ranch. According to TNC, the preserve is generally freely open to the public.

Designated areas of the preserve are open for public hunting, hiking, and for educational and cultural activities. During times of extreme fire hazard, unsafe road conditions, or herbicide spraying in accessible areas, portions or all of the preserve may be closed to the public. (2006:6)

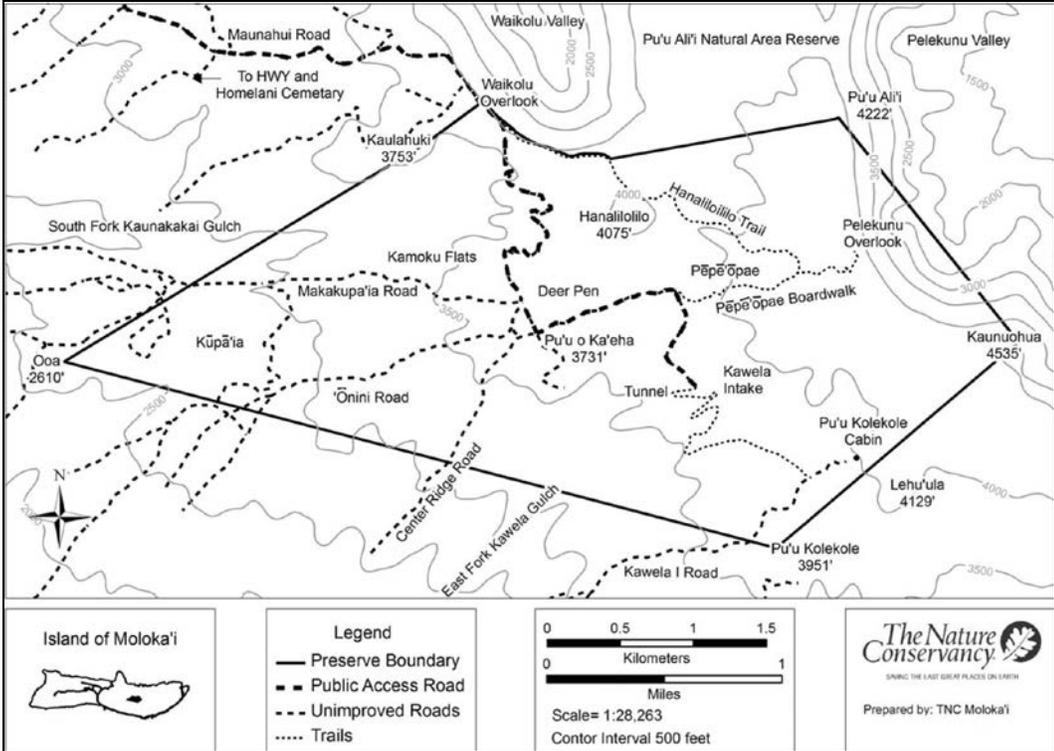


Figure 2. The Kamakou Preserve showing boundary, prominent peaks, roads, trails and other features (TNC 2006:3).



Figure 3. View of the east Moloka'i mountains from the Nature Conservancy office and baseyard.

The preserve “consists of native rain forest, bogs, and shrublands, with several hundred acres converted in the past to planted pine or Eucalyptus stands” (State of Hawaii 1987:2). Five protected natural areas partially surround the Kamakou Preserve while the remaining western side borders State of Hawai‘i Forest Reserve land (TMK 2-5-4-003-025) (Figure 4). TNC lands and the lands surrounding it are zoned conservation.

The five protected natural areas include state-owned Pu‘u Ali‘i Natural Area Reserve (NAR), the Kalaupapa National Historical Park, the common lands of Kawela Plantation, the Kamalō-Kapualei Watershed Project, and TNC’s Pelekunu Preserve.

Wentworth et al. describe the Moloka‘i summit area as a “high volcanic dome...deeply dissected” with “conspicuous tabular areas of sloping bog which represent remnants of original constructional surfaces” (1940:8). They go on to say that these areas “have been reduced but little by weathering and slope wash” (1940:8). The rainfall in this zone averages 120 inches or more (305 cm), while the lower, leeward, reaches of the preserve receive only about 60 inches (153 cm) or less annually (Juvik and Juvik 1998). Bryan provides a detailed description of the environment as observed in the early 20th century:

For various reasons the wet bog forest at the head of Waikolu and Pelekunu valleys is conceded to be the most difficult collecting ground in the Hawaiian Islands. It is situated at a sufficient elevation to be drenched by almost continuous rains, and as a result the verdure is always most luxuriant. Under foot, at all times, is a perfect quagmire up to one's knees. Overhead the tangle of vines, aerial roots, ferns, bushes, and standing and fallen trees—all completely overgrown with moss and slime—are so woven together as to produce an almost impenetrable jungle. Great palis drop down perpendicularly for hundreds of feet. Narrow, fissure-like, forest-hidden valleys, running in all directions, add to the difficulty of getting about, while numerous vine-covered well-like holes, often a hundred or more feet deep, play no small part in furnishing an ever present source of real, though hidden, danger to one working in the region. Add to all these and a hundred other material things the discomforts of the cold drenching rains, the dripping forests, and the dense—oftimes bewildering—clouds of fog that envelope everything, and there would seem to have been little omitted that would add to the discomfort of the collector. (1908:45)

There are ten natural community types found within Kamakou Preserve’s five vegetative zones (Figure 5). These include the rare ‘Ohi‘a Mixed Montane Bog community and the Montane Wet Piping Cave which is unique to Moloka‘i (TNC 2006:5):

- Zone A. Mosaic of: ‘Ohi‘a Mixed Montane Bog (Pēpē‘ōpae and Pu‘u Ali‘i Bogs)
‘Ohi‘a/Mixed Shrubland Montane Wet Forests
‘Ohi‘a/‘Olapa Montane Wet Forests
‘Ohi‘a Montane Wet Shrublands
Mixed Shrub Montane Wet Cliffs
- Zone B. ‘Ohi‘a/Uluhe Lowland Wet Forests
Uluhe Lowland Wet Shrublands
- Zone C. ‘Ohi‘a Lowland Mesic Shrublands
- Zone D. Pine-Dominated Forests and Savannahs
- Zone E. Alien-Dominated Shrublands and Grasslands

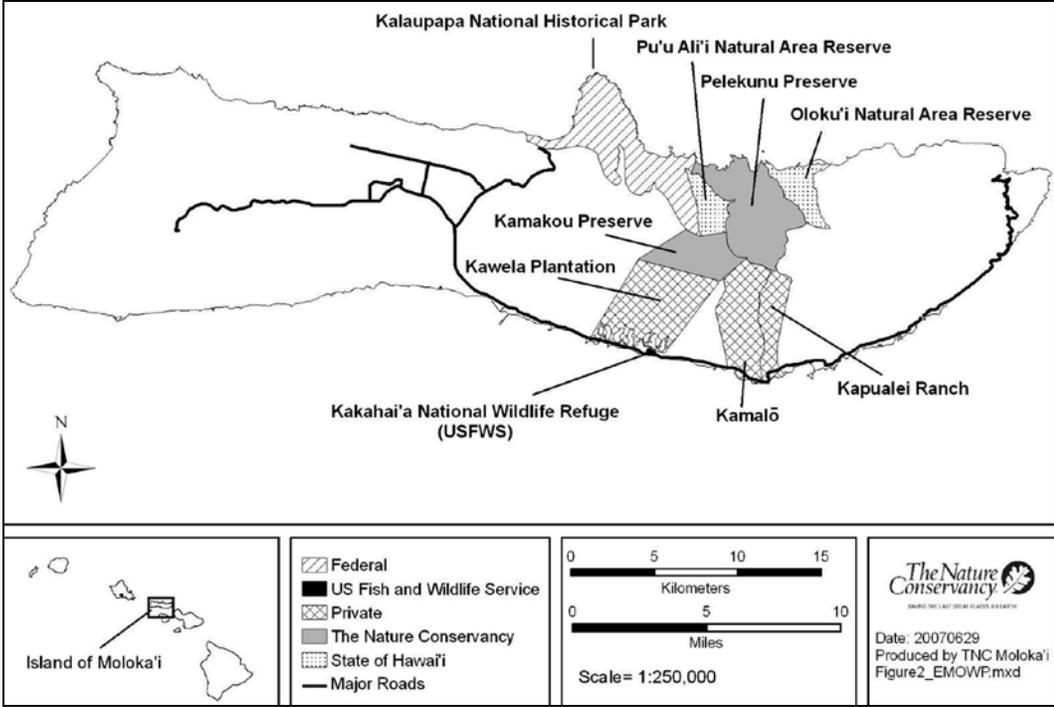


Figure 4. Location of Kamakou Preserve on Moloka'i showing bordering owners (TNC 2009:5).

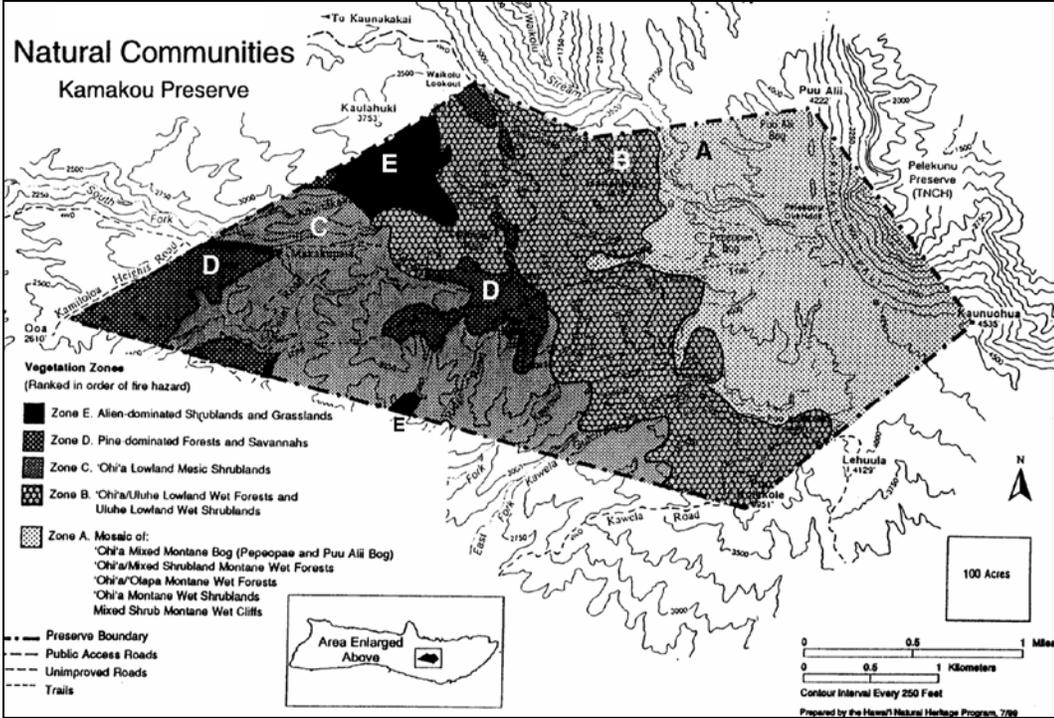


Figure 5. Kamakou Preserve's vegetation zones and natural communities. (TNC 2006:7).

TNC's 1987 Conservation District Use application gives a simpler listing of the common habitats:

1. Wet forest, dominated by tall ohia trees, near the cloudswept mountain summit.
2. Bogs with dwarf ohia on moss hummocks, within the wet forest region.
3. Mesic (moist) forest, to leeward, where deeper, drier soils host many fern, shrub and tree species not found in the wet forest.
4. Dry scrubland, on ridges in the mesic zone, composed of shrubs of ohia, aalii, pukiaawe and a number of rarer species. (State of Hawaii 1987)

These habitats are described in more detail by Sohmer and Gustafson:

Rain Forest

The Hawaiian rainforests are characterized by high rainfall that usually ranges from 150 to 300 or more inches per year. During the winter months the rainforests are often enveloped in rain clouds for long periods of time. Periods of heavy rain are interrupted by periods of mist. During the remainder of the year the morning hours are often clear. The afternoons and nights, however, are usually given to clouds and rain. Hawaiian rainforests occur at elevations from about 450 to 1,700 m (ca. 1,350–5,100 ft). They are found above mixed mesic forests. ... The Hawaiian rainforest is dominated by 'ōhi'a (*Metrosideros polymorpha*)...

The forest presents a dense tangle of branches and rotting logs, which often makes movement difficult. Along with mixed mesic forests, rainforests contain the greatest diversity and largest proportion of of unique species...

Hawaiian rainforests are perhaps not as altered as other native ecosystems, but they are the habitats that are being most adversely impacted at the present time. The problem is primarily due to invasion by feral animals, especially pigs that root up plants like *Astelia menziesiana*, lobelioids, and tree ferns. In areas opened up by pigs, weeds, such as guava and blackberry, quickly replace native species.

Bog

Hawaiian bogs form in relatively level montane areas where rainfall exceeds drainage. They are usually underlain by a layer of light gray impervious clay. ...

The vegetation of Hawaiian bogs generally consists of irregular hummocks of cushion-like, low shrubs, sedges and grasses. Occasionally, larger shrubs or even small trees occur, especially along the bog margins or on raised hummocks. ... The woody component of bogs consists primarily of species that are common in other vegetative zones but exist in dwarfed form in bogs...

Until recent decades, Hawaiian bogs remained relatively pristine. However, they are becoming increasingly degraded by the activities of man and his introduced animals. Trampling by hikers creates areas of mud and standing water not found in the natural state. The most serious problem is the relatively recent invasion of bog ecosystems by feral pigs. Pigs uproot bog plants to eat the succulent roots or copious earthworms. They seem to particularly enjoy eating the hearts of tree ferns and the flowers of endemic lobelioids. Fencing projects help to some degree, but pigs must be removed from these fragile Hawaiian ecosystems if there is to be any hope at all for their continued existence.

Mixed Mesic Forest

This is the most species-rich of the vegetation zones in the islands, occurring from about 750 to 1,250 m. ...These areas have less rainfall than the rainforests, but do not suffer extended dry periods. Formerly they were open-canopy forests consisting of a diverse mixture of trees and shrubs. It is often difficult to clearly demarcate where the dry forest ends and mixed mesic forest begins. Along with rain forests, mixed mesic forests harbor the majority of endemic species in virtually all of the larger genera...

The mixed mesic forests, although existing in some areas in much the same form as they probably did before man, have been seriously degraded in the last 100 years.

Dryland Forest and Shrub

This was at one time a diverse vegetation, but there is little of this remaining in Hawai'i. Most of the area that would have once been covered with this vegetation is now largely given over to grazing of cattle and sugar and pineapple agriculture. These areas have been extensively burned during the Polynesian period. Dryland forest ranged from about 200-300 m to about 900 m in elevation. It is difficult to define upper and lower elevational limits of this vegetation. It occurs primarily on the leeward sides of the main islands...

About 22% of the total indigenous species in Hawai'i occur in this zone, but there are only several endemic species. (Kay 1994:147–152)

In 1908 Bryan noted the remarkable absence of *koa* trees in the Moloka'i mountains:

In general it might be said that the forests of the island are characteristically timbered with the common native trees of the group, save for the striking exception of the Koa (*Acacia*) which is entirely wanting in the Molokai mountains. The Ohia (*Metrosideros*) is everywhere the most conspicuous, and, to the ornithologist, the most important tree. (1908:45)

Nālani Wilson, in *View From a Mountain*, writes about the plants that have evolved in a symbiotic relationship in the forests of Moloka'i:

Kamakou is home to primarily native and endemic plants and trees like the 'ōhia lehua, which on Moloka'i is the *kinolau* – embodiment – of Laka, the goddess of *hula*. The 'ōhia lehua trees stand tall, bursting with blossoms of salmon, yellow and red. The native 'ōlapa tree quivers like the gentle movements of a dancer in the misty breezes. The native forest is layered with plants, trees and mosses living symbiotically – harmoniously in balance. They feed and shelter each other like the people of the island. This is how the forest of Kamakou has evolved to live and thrive. (2005:32)

Another perspective is detailed by George Cooke, who moved to Moloka'i in 1908 to take over the management of Moloka'i Ranch. He describes how the native forest has grown up where open grassland had been previously. It was his belief that the native forest promotes watershed development:

My acquaintance with the Molokai forest reserve began in 1899, when, as a schoolboy on vacation, we camped in tents in a little valley south of Waikolu, at a place called Kamoku. While hunting, we traveled over the land in the forest reserve. Ridges that were then covered with Hilo grass are now covered with a volunteer growth of native trees,

bushes and ferns. The same ridges that we were able to gallop over are now so swampy that they may be traversed only on foot and with great difficulty. I have seen the return of much growth of the native forest. I believe that more water is conserved in the forest now than when I was there as a boy. (Cooke 1949:62)

Of the 40 rare plant types found so far in the preserve, 23 are listed as endangered (a list of these plants can be found in Appendix 2 of TNC's *Long-Range Management Plan*, 2006). According to the Hawai'i Natural Heritage Program, rare is defined as "species that exist in fewer than 20 populations or less than 3,000 individuals worldwide," while the U.S. Fish & Wildlife Service defines endangered as "an animal or plant species in danger of extinction throughout all or a significant portion of its range."

Since 1960 only five species of native forest birds have been seen within the Kamakou Preserve and only two of these are seen regularly, the 'apapane (*Himatione sanguinea sanguinea*) and the 'amakihi (*Hemignathus virens wilsoni*). The other three bird species are acknowledged as being endangered by the state and/or federal government and include the oloma'o, or Moloka'i thrush (*Myadestes lanaiensis*), the kākāwahie, or Moloka'i creeper (*Paroreomyza flammea*), and the 'i'iwi (*Vestiaria coccinea*) (Figure 6).

Sheila Buff writes that "only a few olomaos survive today as endangered species in remote regions of Molokai, including the Nature Conservancy's Kamakou Preserve" (Frohawk 1989:52). The oloma'o was last seen in 1988 just east of the preserve in Kamalō (TNC 2006:2).

Scott Barchard Wilson, an ornithologist sent to Hawai'i by Professor Newton of Cambridge University to study the birds there, discovered the kākāwahie sometime in 1887 or 1888 and describes obtaining specimens on Moloka'i during that time:

It (the kakawahie) is peculiar, as far as I can judge, to the island of Molokai, and I only procured three specimens during my stay, all at Kalae; it may not, however, be safe to consider it rare, as my host easily obtained the native name for me, thus showing the bird to be known to the aborigines. I met with all three examples on the same day, killing a male and a female at the same shot. It was in one of those penetrating mists, which fortunately we did not often experience in the Sandwich Islands, that I had started early in the morning from Mr. Meyer's residence, accompanied only by a native boy, and until noon the day was clear; in the afternoon, however, the mist gathered and a cold rain began to fall; soon we were completely enveloped, and my native, well acquainted with the forest as he was, lost the way. While we were wandering about and searching for the trail, I heard a curious sound—a continued *chip, chip, chip*, not unlike the sound of chopping wood when heard at a distance—which at first I did not think could belong to a bird; soon, however, I was undeceived, as a flash of brilliant orange colour passed us in the fog; when, on trying to follow it up, the continuous metallic note enabled me to get within range and I fired, bringing down two birds, which proved to be male and female. Soon afterwards I shot another of the bright-colored males. We had by this time hopelessly lost our way, and the consequences might have been serious; so we were extremely glad to hear revolver shots at no great distance, which proved to be fired by Mr. Meyer's sons, who had come in search of us. The name applied to this bird in the Hawaiian language means firewood; but whether this is given to it from the note, which, as remarked above, resembles the sound of chopping wood, or from the brilliant flame-color of its plumage, I am unable to say. (Frohawk 1989:112)



Figure 6. Endangered birds found in Kamakou: *oloma*‘o, bottom bird in the left illustration; *kākāwahie*, bottom two birds in the right illustration. Lithographs by Frederick William Frohawk c. late 19th century (Frohawk 1989).

According to the Hawaiian dictionary *kākāwahie* literally means “wood chopping” (Pukui and Elbert 1986). The *kākāwahie* has not been seen since 1963 (TNC 2006:2).

Two 19th century lithographs depict the ‘*iwi* (Figure 7). The left illustration shows “immature birds at various stages” (Frohawk 1989). The spotted yellow plumage changes to red as the bird ages and the bill deepens in color to red. They are sitting on the branch of a flowering *uulei*. On the right are two adults and a juvenile. The adult at the top left is a male and the adult at the bottom right a female. They are perched on a vine called the *nuku* ‘*iwi* (‘*iwi*’s bill) or *kā*‘*iwi* (the ‘*iwi*) (*Strongyodon lucidum* or *Strongyodon ruber*).

In describing the ‘*iwi*, Sheila Buff mentions the importance of the feathers to Hawaiians:

The richly colored red breast feathers of the *iiwi* were the primary feather used to make the robes worn by native Hawaiian chiefs and priests. Because of this the bird is often in Hawaiian myth and folklore. (Frohawk 1989:132)



Figure 7. The 'i'iwi (*Vestiaria coccinea*). Lithographs by Frederick William Frohawk c. late 19th century (Frohawk 1989).

The differences in juveniles and adults is striking, and the fact that Europeans mistakenly thought that they represented different species may be readily evidenced by either their journals, field notes or differing nomenclature. Such a conclusion can not so readily be made for the Hawaiians, however, and Buff does not explain the source behind her conclusion that Hawaiians thought the immature 'i'iwi were of a different species than the adults:

Immature birds of this species differ markedly in appearance from the adults, to the extent that native Hawaiians and early European observers thought they were another species altogether. The natives apparently did recognize that the birds were related, calling the immature birds iiwi popolo or iiwi polena. (Frohawk 1989:132)

She goes on to describe how the 'i'iwi were easily caught by hand:

The iiwi is an unsuspecting bird, and was often caught by the expedient of holding a bunch of flowers and grasping the beak of the bird when it trustingly came to feed. (Frohawk 1989:132)

A single young 'i'iwi was seen in Kamakou Preserve in 1996 and three were recorded during the Moloka'i Forest Bird Project survey in 2004 (TNC 2006:2).

Finally, five rare snail species have been documented within the Kamakou Preserve. They are commonly called achatinellid land snails and include *Partulina mighelsiana* (Figure 8), *P. proxima* (Figure 9), *P. redfieldii* (Figure 10), *P. tessellate* (Figure 11) and *P. helena* (Figure 12).

P. mighelsiana is described as:

Shell ovate-coniform, smooth, opaque, glossy; snow-white variegated with ashy streaks. Spire conic, the apex rather acute, suture somewhat margined. Whorls 5 1/2, convex, the last encircled with a blackish line (sometimes doubled) below the middle. Columellar fold strong, tooth-like, chestnut colored at the base. Aperture semi-oval, brown-margined; peristome simple, acute. Length 17, diam. 8 mm. (Tryon et al. 1912–1914:77)

P. proxima has several varieties, with the second one described found in Pelekunu:

Color chestnut-brown, striped and mottled irregularly with darker brown and white; columella and inner edge of aperture purplish red. In another variety the stripes are tawny yellow on a white or slightly coffee-tinted ground. Another form has close hair-like lines, of brown, cream, and pale lilac, in harmony with growth-lines, over the whole post-embryonic shell. It is glossy... Length 26.5, diam. 15.5, aperture 14 mm. (Tryon et al. 1912–1914:32)

P. redfieldii is characterized by the following:

Shell sinistral, elongate, conical, striated longitudinally, color light fawn passing in to deep chestnut, paler above, plain or with transverse chestnut bands with obscure undulation upon the third whorl only; a white band also tranerses the suture, whorl 6; suture well impressed, slightly margined. Aperture subovate; columella brown, flat and twisted; lip slightly reflected, the color of the columella. Animal as long as the shell, grayish above, sprinkled slightly with brown, tentacles of the same color, mantle slate, bottom of foot of a greenish gray. Length 21-25, diam. 13-14, aperture 10.5-13 mm. (Tryon et al. 1912–1914:38–39)

P. tessellate is described as:

Shell sinistral, ovate-oblong, solid, with minute decussating striae, color white or fawn-colored, variously striped or not with black and chestnut bands, upper whorls always tessellated with black and white; whorls convex, the last somewhat inflated; aperture white or roseate, ovate, effuse below; columella short and broadly callouse; columellar lip broad and slightly reflected. Length 1 to 1.1 inch; breadth 0.6 inch. (Tryon et al. 1912–1914:28)

P. helena is a rare form:

Shell sinistral, ovate-conical, with finely decussating striae; rufous, alternating with broad longitudinal zigzag white lines covering the entire shell; the last whorl often encircled by a white band. Length 0.5, breadth 0.22 inch. Newcomb states that *A. helena* 'is extremely limited in its locality, which has been twice carefully searched by myself without discovering larger specimens, dead or alive, that approached it in form. Several of the specimens contained young in the oviducts.' It was taken 'within the coil of the Ti tree leaf, as it starts from the trunk.' Length 0.5, breadth 0.22 inch. (Tryon et al. 1912–1914:16–17)

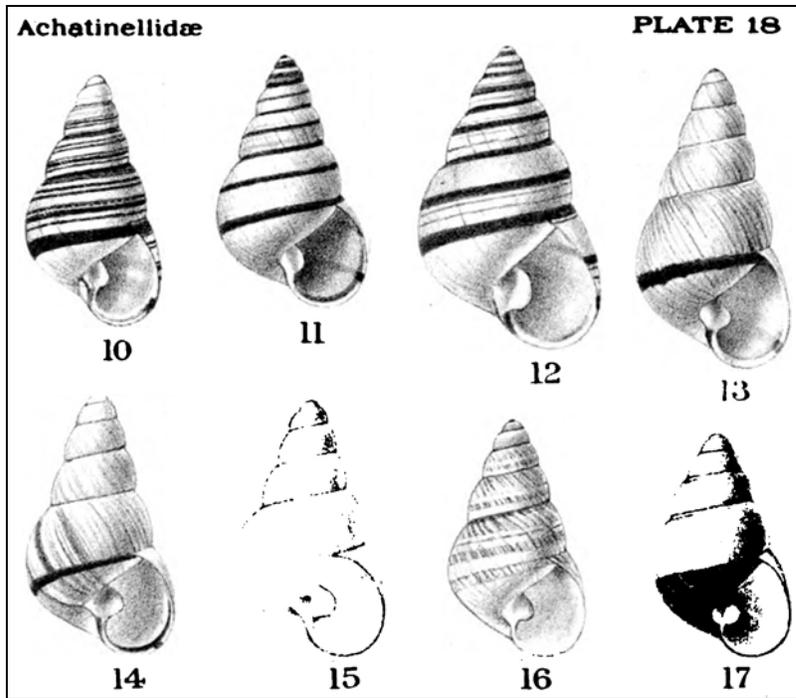


Figure 8. *Partulina mighelsiana* (Tryon et al. 1912–1914:77).

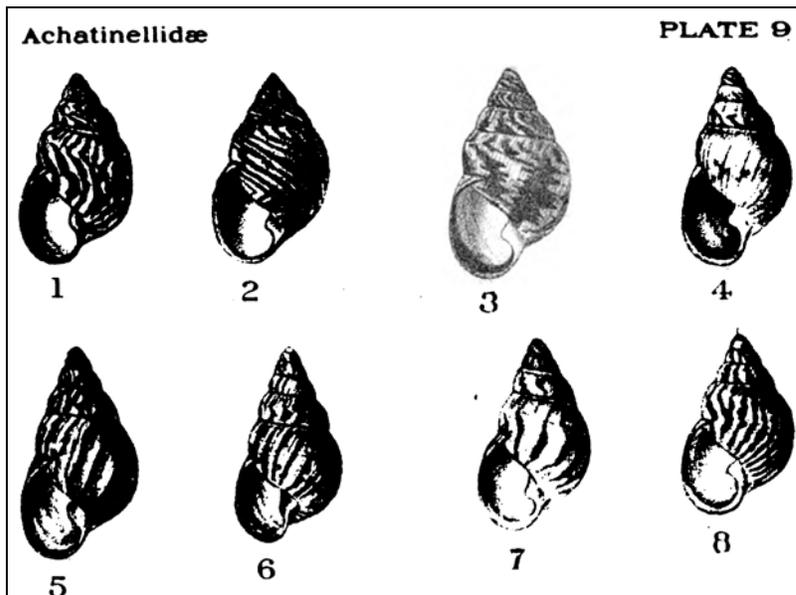


Figure 9. *Partulina proxima* (Tryon et al. 1912–1914:32).

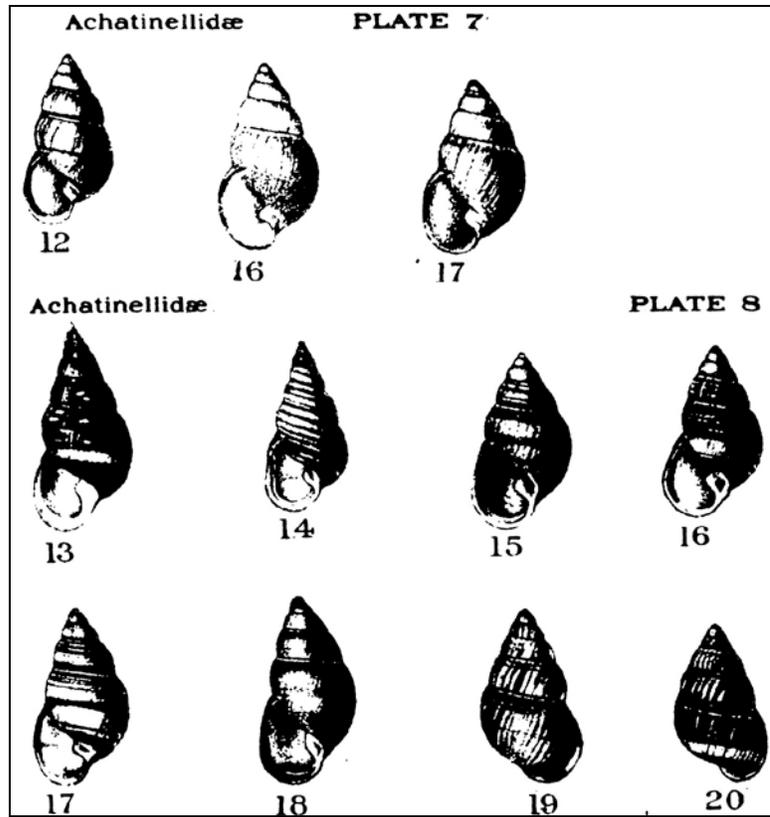


Figure 10. *Partulina redfieldii* (Tryon et al. 1912–1914:38–39).

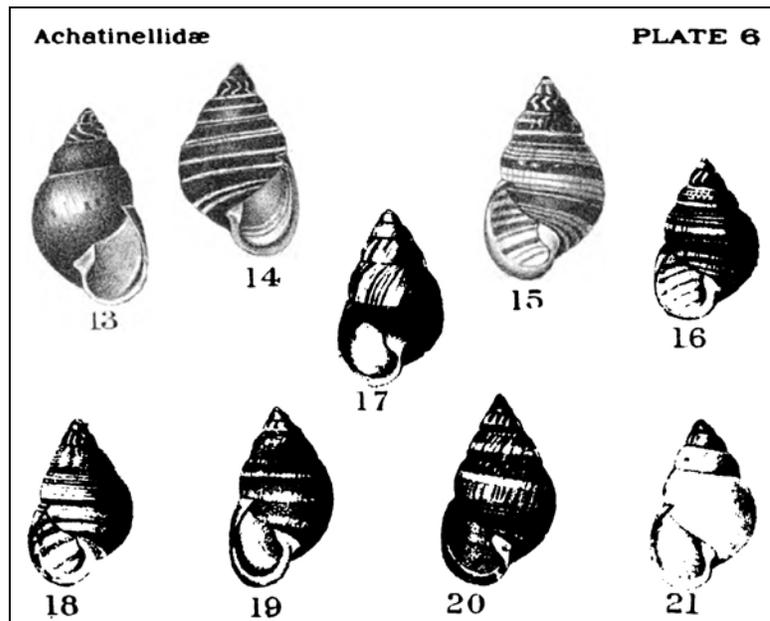


Figure 11. *Partulina tessellate*, with 16 and 18 from Makakupa'ia (Tryon et al. 1912–1914:28).

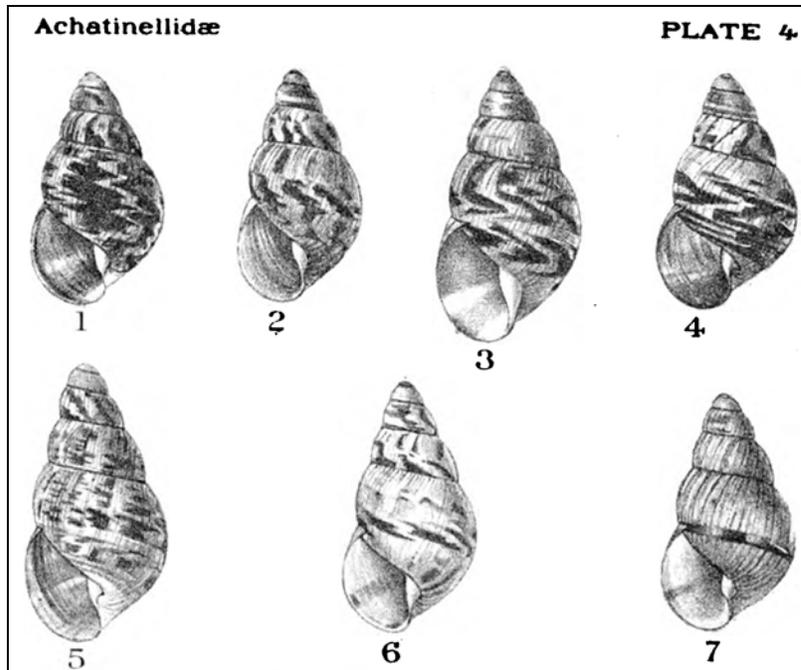


Figure 12. *Perdicella helena* (Tryon et al. 1912–1914:16–17).

Cultural Background

The region occupied by the present day Kamakou Preserve is not generously documented in historic literature. There is mention of specific localities within the preserve by early scientists engaged in various studies and specimen collection, but very little mention is made in earlier accounts aside from references to the general area of “the mountain,” or “the forest.” The only *mo‘olelo* associated with the preserve are in connection with the mountain peak Kaunuohua (including ‘*ōlelo no‘eau, mele, kanikau*, etc). The two *ahupua‘a* within which the preserve is located were large awards in the Māhele, but no mention is made in the testimony of the mountain areas. No archaeological studies have been conducted in the preserve and there are no known archaeological sites within its boundaries. Indeed, the only recorded archaeological site within the whole of the forest reserve is an historic-era earthen pit used to measure shiploads of sandalwood at a lower elevation to the west. This is not to say that archaeological sites do not occur within the preserve; there have not been any studies to identify them.

Place Names

Place names often shed light on traditional views of an area and can provide important contextual information. Figures 13–18 show maps that depict place names in the vicinity of the project area. These include two historic-era maps by Monsarrat (1886 and 1895), a map by Dodge, Willis, and Kanakanui (1897), Lindgren’s map for the American Sugar Company (1900), and USGS quadrangles from two years (1924 and 1993).

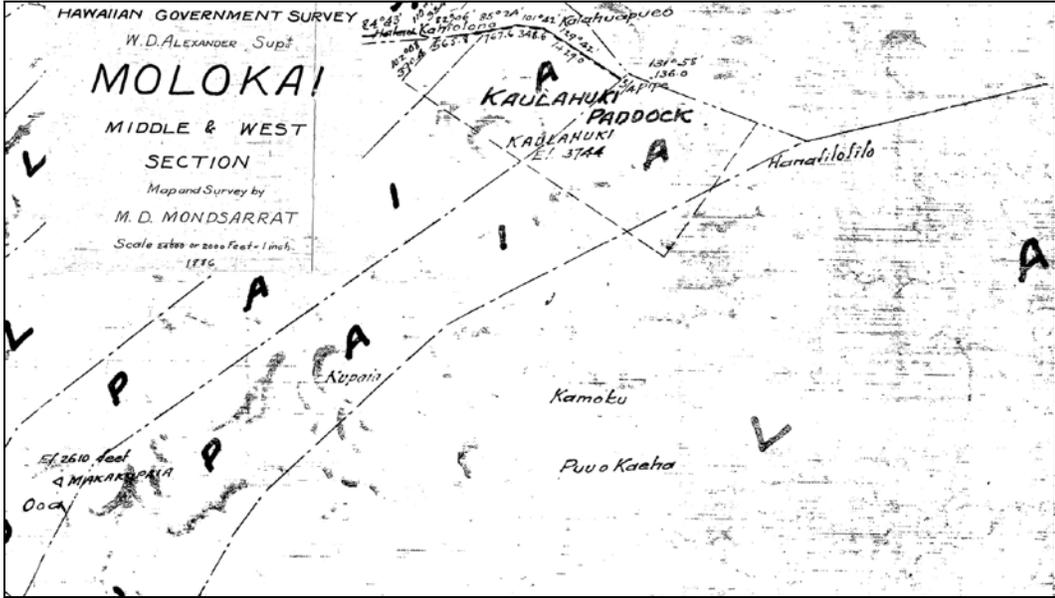


Figure 13. Government survey map of the project area (Monsarrat 1886).

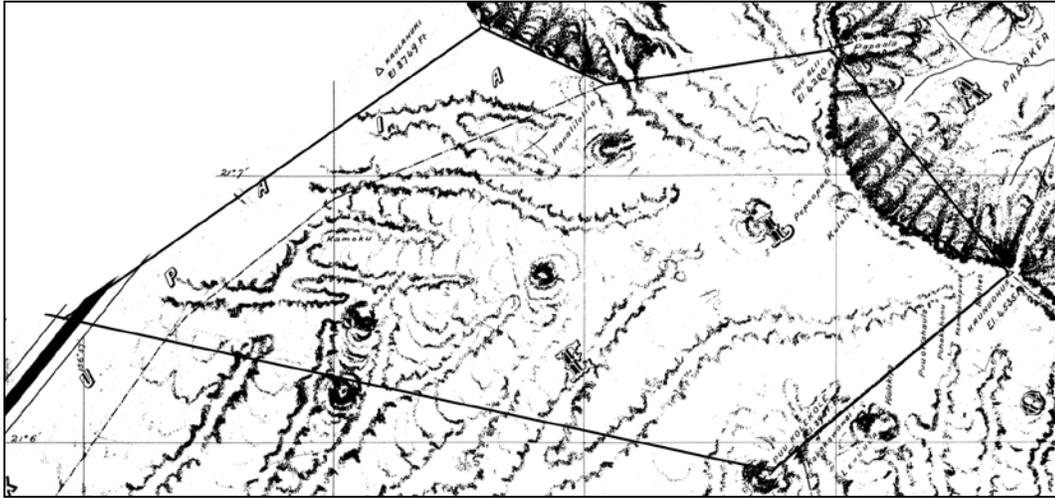


Figure 14. Another of Monsarrat's maps (1895).

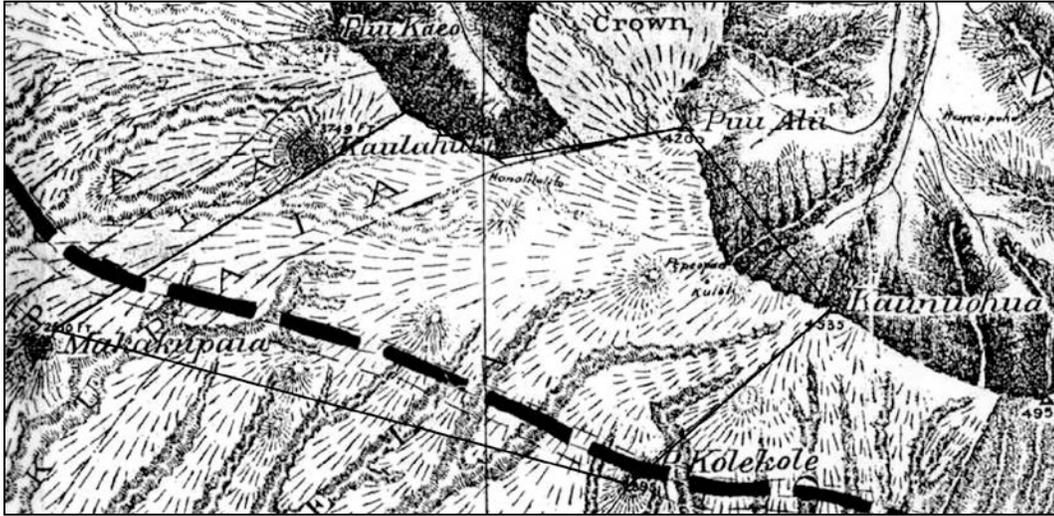


Figure 15. Historic-era map by Dodge et al. (1897).

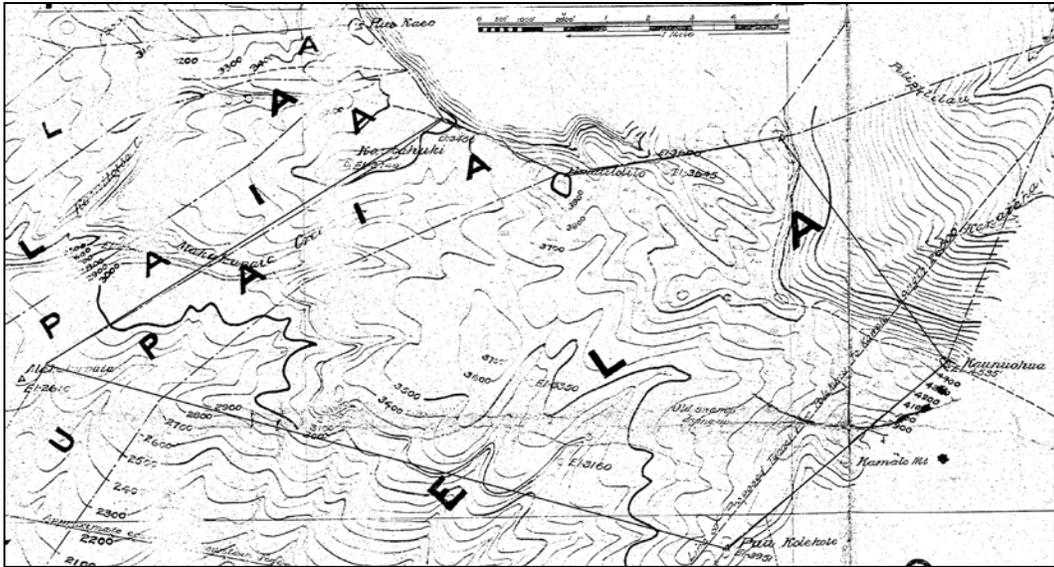


Figure 16. American Sugar Company map (Lindgren 1900).

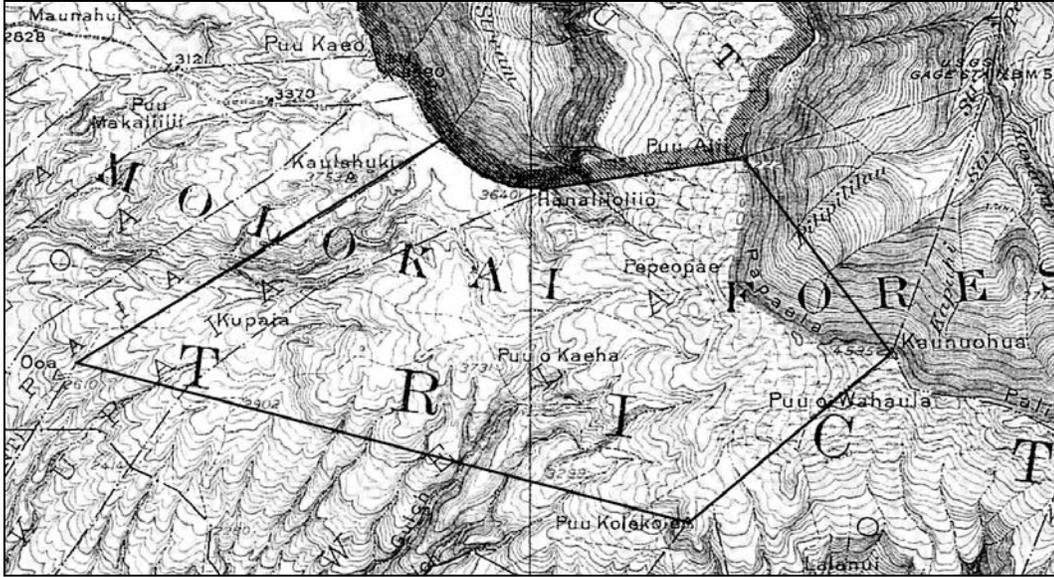


Figure 17. Portion of a 1924 USGS map.

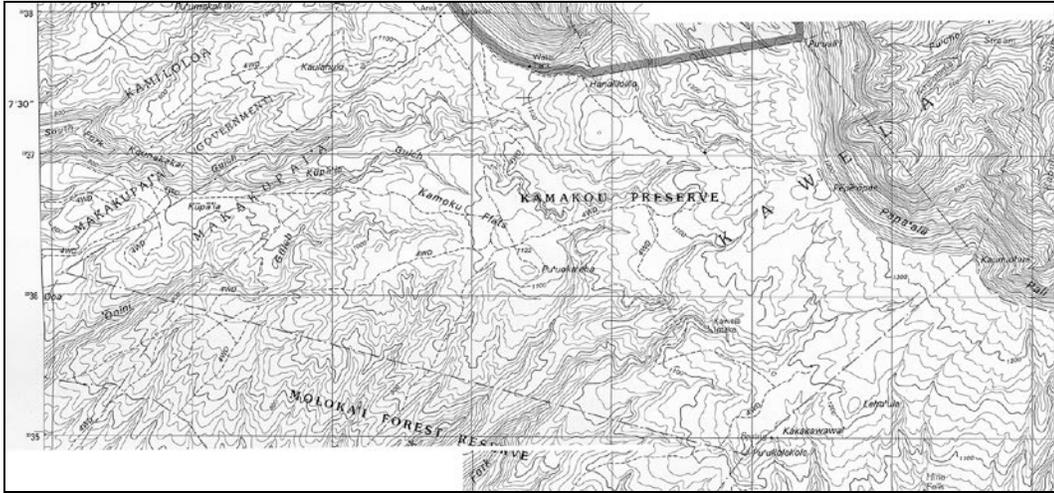


Figure 18. Portion of a 1993 USGS map.

A list of names was compiled from these maps and their meanings are presented alphabetically below. These include general place names, peaks, a cliff, and a swamp. Following the place name list, Table 1 summarizes this information.

Hanalilolilo

Hanalilolilo is a *pu'u* and trail in the forest above Waikolu. The name translates to “disappearing place,” for as you approach the hill it appears to be receding (Pukui et al. 1974). The place is labeled as Hanakalilolilo on a 1906 map (Figure 19).

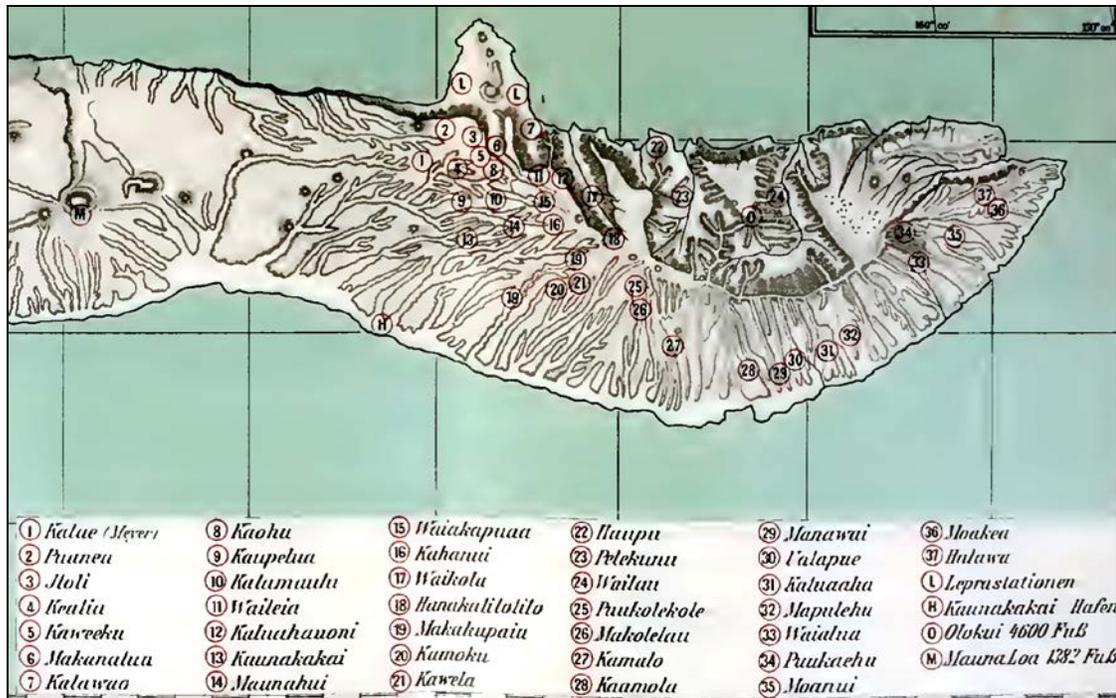


Figure 19. Location of Hanakalilolilo (Borcharding 1906).

Kakawawai

Kakawawai is a place name appearing on only Monsarrat’s 1895 map and then on the 1993 USGS topographic map. It is located just to the east of Pu’ukolekole and outside the boundary of the Preserve. No translations could be located in any of the reference texts searched.

Kamakou

Kamakou is the highest peak of East Moloka’i (Stearns and Macdonald 1974:3). The term *makou* refers to the native herbs of the genus *Ranunculus* (upland) or *Peucedanum* (lowland), now rare on Moloka’i. The parsley-like leaves appear in sets of threes on the plant, are quite asymmetrical and deeply lobed, resembling very much the shape of the three adjacent *pu’u* (Waha’ula, Uapa, and the greatest, Kamakou) (Ed Misaki pers. comm.). *Peucedanum*, or *makou*, is an endemic flowering shrub whose root was eaten in traditional times by the very young and the elderly as medicine (Kaaiakamanu 2003:72–73). The last seen upland *makou* (*Ranunculus*) on Moloka’i was in the Kamakou Preserve nearly four years ago (Russell Kallstrom, pers. comm.).

Kamoku

Kamoku, or Kamoku Flats as it has come to be known, is an area of relatively flat land below Pu’uoka’eha in the Moloka’i forest. These flats separate or divide Kaunakakai and Kawela drainages at or near their uppermost reaches. While Andrews translated Kamoku as “the district division” in 1922, Pukui and Elbert later translated it as “to break, cut, as land” (1986). It has also been translated as “the divide.”

Table 1. Kamakou Preserve Place Names from Early and Recent Maps

Monsarrat (1895)	Dodge, et al. (1897)	Lindgren (1900)	Borcherding (1906)	USGS (1924)	USGS (1993)
Hanalilolilo	Hanalilolilo	Hanalilolilo	Hanakalilolilo	Hanalilolilo	Hanalilolilo
Kakawawai	---	---	---	---	Kakawawai
Kamoku	---	---	Kamoku	---	---
---	---	---	---	---	Kamoku Flats
Kaulahuki	Kaulahuki	Kaulahuki	Kaulahuki	Kaulahuki	Kaulahuki
Kaunuohua	Kaunuohua	Kaunuohua	---	Kaunuohua	Kaunuohua
Keanakaluapuaa	---	---	---	---	---
Kialakipa	---	---	---	---	---
Kuloli	Kuloli	---	---	---	---
---	---	---	---	Kupaia	Kūpā‘ia
---	---	---	---	---	Kūpā‘ia Gulch
Lehuula	---	---	---	---	Lehu‘ula
Maheo	---	---	---	---	---
---	Makakupaia	Makakupaia	Makakupaia	Ooa*	Ooa
---	---	Old swamp drying up	---	---	---
Papaala	---	---	---	Papaala	Pāpa‘alā
Pepeopae	Pepeopae	---	---	Pepeopae	Pēpē‘ōpae
Pohakuhonu	---	---	---	---	---
Puu Alii	Puu Alii	---	---	Puu Alii	Pu‘uali‘i
Puu Kolekole	P. Kolekole	Puu Kolekole	---	Puu Kolekole	Pu‘ukolekole
Puu o Kaeha	---	---	---	Puu o Kaeha	Pu‘uoka‘eha
Puu o Wahaula	---	---	---	Puu o Wahaula	---

*In same location as Makakupaia previously.

Kaulahuki

Kaulahuki is a well-known peak which lies outside of the Preserve boundary to the west. “A hauling rope” is the literal translation given by Andrews (1922:646) for Kaulahuki. Andrews goes on to say that it is a “Mountain, Central Range, Molokai.”

Kaunuohua

The high peak located at the head of Pelekunu Valley, Kaunuohua is abbreviated as Unu-o-hua in some sources (Pukui et al. 1974). The two translations of the name appear to be based on different spellings and pronunciations. Andrews gives “kā‘u-nu-o‘huā” as the pronunciation in his dictionary, which he translates as “the family conference” (1922). Ka-unu-o-Hua, as shown in *Place Names of Hawai‘i* on the other hand, is literally translated as “altar of Hua” (Pukui et al. 1974).

Kawela

Kawela is an *ahupua'a* land division on Moloka'i and is translated as "the heat" (Andrews 1922, Pukui et al. 1974).

Keanaluapuaa

Keanaluapuaa appears as a place name on Monsarrat's 1895 Government survey map, but not in any of the dictionaries or books on place names. Monsarrat shows this place to be in the Moloka'i mountains below Kaunuohua and along the eastern boundary of the present day Kamakou Preserve. Translating as "pit/cave of the pig," numerous lava tubes, both intact and collapsed, are present near Kaunuohua. TNC staff have reported pigs who appear to have fallen and died in these pits.

Kialakipa

Not appearing in any reference materials on Hawaiian place names, Kialakipa is only represented on Monsarrat's 1895 Government survey map and is below Kaunuohua and along the eastern boundary of the present day Kamakou Preserve. Perhaps it is an extension of what we know today as the Lehu'ula/Kamalō trail/quarry road, from the Kamalō quarry which terminates around Lehu'ula Peak. The Lehu'ula road/trail might be an *ala hookipa*, a path for travelers to use to visit the opposite side of the island.

Kūloli

The place name Kūloli appears only on late 19th century maps of Moloka'i. Kūloli is a high area between Kaunuohua and Pēpē'ōpae and is literally translated as "having no wife, children, or relatives" (Pukui et al. 1974). Also translated as "standing rotten," this is perhaps a reference to a bog, such as Pepeopae or another adjacent bog, or the general soaked nature of vegetation in that area.

Kūpā'ia

Kūpā'ia is the name of a ridge and gulch which extend into the Kamakou Preserve. "Hewed out" is the literal translation (Pukui et al. 1974).

Lehuula

Lehuula is located just outside the east boundary of the Preserve. It first appears on Monsarrat's 1895 Government survey map and then is absent until 1993 when it is again shown on the USGS topographic map of the area. The definition given by Andrews (1922:364) for Lehuula is "dust and dirt when carried by the wind, having a reddish appearance."

Maheo

Maheo appears as a place name only on Monsarrat's 1895 Government survey map and is shown as being below Kaunuohua and along the eastern boundary of the present day Kamakou Preserve. No translation, interpretation, or reference was found in any of the sources searched.

Makakupa‘ia

Makakupa‘ia is the name of two *ahupua‘a* land divisions in leeward Moloka‘i. The two land divisions were distinguished as “Government Makakupa‘ia” and “*konohiki* Makakupa‘ia,” “big Makakupa‘ia” and “small Makakupa‘ia,” as well as “Makakupa‘ia 1” and “Makakupa‘ia 2” as shown on modern tax maps. The translation for Makakupa‘ia given by Andrews is “sentinel-like eyes” (1922). While there is a listing in *Place Names of Hawai‘i* (Pukui et al. 1974) for Makakupa‘ia, no translation for the name is given.

‘Ōnini Gulch

‘Ōnini Gulch extends from the southern shoreline of central Moloka‘i up into the Kamakou Preserve. ‘Ōnini literally means “breeze” (Pukui et al. 1974). This definition is expanded upon in the *Hawaiian Dictionary* as “a slight breeze, puff of wind” (Pukui and Elbert 1986). Andrews gives a fuller definition, “a very slight breeze like that which occasions a ripple after a calm...applied only to a gentle wind when it covers the sea with ripples: *he onini makani*; the first beginning of a sea breeze; a puff of wind” (1922).

Ooa

Ooa is a place name that first appears on Alexander’s 1886 Hawaiian Government Survey map of Moloka‘i in the area of the peak called Makakupa‘ia (elevation 2,610 feet). No translation, interpretation or reference was found in any of the written sources searched.

Pāpa‘alā

Pāpa‘a-lā is a *pali*, or cliff, at the back of Pelekunu Valley which runs along the boundary of the Kamakou Preserve. Pāpa‘a-lā is translated as either “sunburn” (Pukui et al. 1974) or similarly “the hot season; a time of no rain when all is parched with the sun” (Andrews 1922).

Pēpē‘ōpae

Pēpē-‘ōpae is the name of a peak at the back of Pelekunu Valley, as well as a bog in the Kamakou Preserve. It translates to “shrimp crushed” (Pukui et al. 1974), but how this may relate to the places it names is unknown.

Pōhakuhonu

“Pohakuhonu” appears as a place name only on Monsarrat’s 1895 Government survey map (no diacritical marks were used in spelling place names on any of his maps). Pōhakuhonu is shown as being below Kaunuohua and along the eastern boundary of the present day Kamakou Preserve. While *Place Names of Hawai‘i* identifies the location of Pōhakuhonu as being a gulch on the Halawa USGS quadrangle much farther east, the translation would be the same for either locality and is given as “turtle stone” (Pukui et al. 1974).

Pu‘uali‘i

Pu‘uali‘i is a 4,222 foot mountain peak at the back of Pelekunu Valley and translates as “royal hill” (Pukui et al. 1974).

Pu'ukolekole

Pu'ukolekole is a peak in the Moloka'i mountains along the upper east border of Kawela ahupua'a. In *Place Names of Hawai'i*, the translation of Pu'ukolekole is given as "scarred hill" (Pukui et al. 1974). However, in the *Hawaiian Dictionary* (Pukui and Elbert 1986) the meaning of *kolekole* is given as "red, as red earth," with an example of its use being "*kole ka 'āina*," or "the land is bare and red."

Pu'uoka'eha

Pu'uoka'eha is a 3,732 foot-high peak in the Moloka'i mountains adjacent to, and to the east of, the Kamoku Flats. Pu'uoka'eha translates to "hill of the pain" (Pukui et al. 1974).

Pu'u o Waha'ula

It is interesting to note that a peak as high as Pu'u o Waha'ula (4,827 feet) appears on only two of the maps found for this study, namely Monsarrat's 1895 Hawaiian Government Survey and the 1924 series USGS topographic map. Literally translated, Pu'u o Waha'ula means "hill of red mouth" (Pukui et al. 1974). It is possible that Monsarrat placed this incorrectly, as there is no hill in this location along the eastern Kamakou Preserve boundary. Pu'u O Waha'ula, in later USGS maps, refers to the westernmost peak in the set of three (east to west, Kamakou, Uapa, Waha'ula).

'Ōlelo No'eau

There are three *'ōlelo no'eau*, or poetical sayings, regarding the peak named Kaunuohua in the Kamakou Preserve. No *'ōlelo no'eau* were found for Kamakou in general or for any other places within the preserve.

A aloha wale ia ka hoi o Kaunuohua, he wahi puu wale iho no ia.
If love can be bestowed to Kaunuohua, which is only a hill.
If a hill can be loved, how much more can you be loved. (Judd 1930:54)

A aloha wale 'ia ka ho'i o Kaunuohua, he pu'u wale no.
Even Kaunuohua, a hill, is loved.
If a hill can be loved, how much more so a human? (Pukui 1983:3)

Ke ahu a Kaunuohua i kaulu pali.
The heap of Kaunuohua on the slope of the cliff.
A humorous reference to the scrotum. (Pukui 1983:180)

Mele

This contemporary song was written by the late John Ka'imikaua and performed by Raiatea Helm (2004). It mentions the mountain namesake of the preserve, Kamakou, as well as the area's misty nature and fragrant *maile*. These are strong images that when experienced are not easily forgotten. John Kaimikaua explained his *mana'o* regarding the song to Raiatea as written in the liner notes of her CD (Helm 2004):

This mele speaks about a type of *maile* that grows in the Kamakou Forest Reserve on Moloka'i, called Kaluheha. The beauty and scent of this *maile* is compared to the beauty and scent of a woman. It describes how its scent lingers on your bosom, even after being removed. Like the lingering scent of your lover, that lasts throughout the day. It is a soothing and comforting memory.

Ku'u Pua Kukui O Kamakou

Aia i ku'u lei pua kukui
Kau 'olu i ka wēkiu o Kamakou
He lei onaona lua 'ole
A he lei a na'u i aloha.

*There is my kukui blossom lei
Placed upon the top of Kamakou
An incomparable fragrant lei
A lei that I love*

Hui

Ku'u lei pua kukui
Lei ha'aheo o Molokai

Chorus

*My kukui blossom lei
Proud lei of Moloka'i*

'Olu'olu ho'i au i ka 'ikena
'O ku'u mea wehi i ka ua
Ne'e mai e mehana kāua
He lei papahi i ka poli.

*I am pleased at the sight
Of my lover in the rain
Move closer and let's embrace
A lei to adorn the bosom.*

'A'ohē lei e a'e o ka uka
I wili 'ia me ka maile Kaluheha
Ke aloha o ka maile Kaluheha
He lei hiwahiwa no Lanikāula.

*There is no other lei of the uplands
Entwined with the maile Kaluheha
The love of the maile Kaluheha
A cherished lei from Lanikāula.*

Hā'ina 'ia mai ana ka puana
'O ku'u lei pua kukui
'Ohu'ohu 'ia e ka ua noe
He lei wehiwehi no Moloka'i.

*The story is told
Of my kukui blossom lei
Shrouded by the misty rain
An adorning lei of Moloka'i.*

In 1973 Reverend Dennis Kamakahi wrote this song set in Molokai's forested region with mention of Kamakou, mist, rain and wind. These are all elements not uncommonly encountered in any experience of the area. Performed by Justin Young, the following *mana'o* was found in the liner notes of his CD:

High above Kalaupapa in the forest of Pala'au, the forest is very quiet except for the sound of the wind through the trees. The passing rain drenches the forest like a lover who has reached the ultimate climax. The pelting wind is like the breath of the mist (woman) and the 'iwa bird (man) in the act of love. (Yamasato and Young 2000)

Ua, Ua Hō'e'ele

Ua, ua hō'e'ele
I ka nani o Kalaupapa
Me ka makani ka'alina
Me ka makani ka'alina
(Repeat)

*Rain, drenching rain
In the beauty of Kalaupapa
With the pelting wind
With the pelting wind*

Ilaila ka noe a'ō Kamakou
Ua nihi i nā pali
Me ka makani ka'alina
Me ka makani ka'alina
(Repeat)

*There is a mist (woman) of Kamakou
Creeping rain on the cliffs
With the pelting wind
With the pelting wind*

Ilaila ka manu a'ō Wailau
I ke kai mālielie
Me ka makani ka'alina
Me ka makani ka'alina
(Repeat)

*There is a bird (man) of Wailau
In the calm sea
With the pelting wind
With the pelting wind*

Ha'ina 'ia mai ana ka puana
O ka ua hō'e'ele
Me ka makani ka'alina
Me ka makani ka'alina
(Repeat)

*The story is told
Of the drenching rain
With the pelting wind
With the pelting wind*

He Mele No Kawaikini, or A Song for Kawaikini, written by S. Lohiau, appeared in the Hawaiian language newspaper *Ka Hoku o ka Pakipika* in 1861. Kaunuohua is mentioned in association with other place names on Moloka'i, "Nani ka lala pali o Kaunuohua..." (the slanting cliff of Kaunuohua is beautiful). Although this is a long *mele*, the full text is presented so as not to take the references out of the original context and to provide opportunity for further study. The Kaunuohua reference has been highlighted to make it obvious to readers.

He mele no Kawaikini.

Kiekie Maunaloa kahela i ka makani,
Haki iluna ka oiwi pali o Hualalai,
Oni mai Maunaloa me Kaliilikaua,
Na lae ohia makani o Kiniahiku,
Hiolo ka leo o ka laau, nei ka leo o ka
pohaku,
Kawewe ka ua i ka pali o Hooilo,
Nakeke ku la i ka papa o Uwolehu,
Kai hakui lua lalo o Kilauea,
Kai popoi mauka o ke ahi alaka,
Huli kakala ka nalu o Puaakanu,
Ke holo la i ka lala o Kahualoa,
I na kakua ale poi a la awaawa,
O kuu moana au i Wahinekapu,
Ka lipo naele ohia o Kaliu,
Kahea ka leo o ke kai kua mauna,

Ka ohia leo nui maika o ka pohakau,
E wawalo ana i mauna Kualoiloi,
He kai kuaau lehua ko Panaewa,
He ua kahiko hala ko Keaau,
Ke kahiko mai la i ka papa o Malio,
He ua kiawe lehua ko Hopoe,
Popohe i ka la ka pua wai Koolihilihi,
Wahine kahee manai kui lehua o Ohiaokalani,
Lani poi mai la uka o Oluea,
E huli mai ana ka ua me ka makani,
Owili ka ua kalae hala o Koolau,
Mama ke keiki ahai lauaha,
I holo aku e makaikai e nana ia Kalua,
E mahalo ana i ka nani o Kahooku,
Hooma mai i na papa lau ohia o Papalauahi,
Me na wahine i Kalaakamalama,
Kukuohi ka nahele o na Kiakaunu,
I na awala makani a ka puulena,
Malalo maluna ma ka lae lehua o Kuianalei,

I kui lima ia ka hala o Halaaniani,
 He haili ano aloha ka la o Kukalaula,
 Na ka noe ohu kolo o na Mauna,
 I hu no a paa luna o na Kuahiwi,
 Kaumaha luna i ka Hekuwawa,
 Make maele i ke anu a Kahooku,
 Ua neki wale i ka ino o ka ua
 nahunahu,
 I ka pilikia haiki a Kaauwea,
 I ahona Omaolala i ka ua Awa,
 I ka nui makemake ia e Kekuawahine,
 I hoolana mai ka pua Ohelopapa o
 Kalua,
 Ka puukiuki wai o Akanikolea,
 I puapua mai ka nani o na Mauna,
 Hihia lua na lehua o Moeawakea,
 Okalakala ka lae ohia o
 Kaunukupukupu,
 He keiki kupueu kolohe na
 Hinaaimalama,
 Ke wahi la i ke kuahu kapu a Lono,
 Naha ka hihia pea kapu o Poliokeawe,
 O wa o hanini mai auanei
 Mokuaweoweo,
 Ke hoale mai la e ale luna o Kaheawai,
 Upai ka ehū makani o Puukoae i ka lai,
 Kau me he iwa la pohaku o Hanalei i
 ka makani,
 Ka hoohaha a na kuahiwi la i ka malie,
 E apo nei ia luna o Huehue,
 E hii nei ia Hainoa i ka makani,
 A makani moe lehua ke hau ka hele
 Mauna,
 Awiwi ka hele i ka uka o Haliukua,
 Lili luna Poliahu i ka ua o noe,
 He ua noe pau pili hau no Lilinoe,
 Paa na hale ohu makahi o Kukahauula,
 I ka hoolale a ke kehau makani olalo,
 I na hoe kauli a Kauamalana,
 I paia maia a maloeloe ka hau o Lihue,
 Lapuu kela i ka pua o ke Koolau,
 I huli mai e apo ke anu o Kupakoili,
 I pue aku a hala ka loa o Pohakuloa,
 Hala ka auwea makani o Kapueuhi,
 E hao mai ana ka ua, hao mai ka

Omakawai a ka awaawa,
 Hao mai la ke anu i ka uka o Kaelehaio,
 Hao ka moani i na lae makani o Puaenaena,
 Hulei lua i ke kai na lae hala o Paiae,
 Pipii ka ihu o Kumukahi i ka makini,
 Wehewe pono ka lako i ke kai o Haena,
 Kiekie Haupū, ke poo o na mauna,
 Nani ka lala pali o **Kaunuohua**,
 Ke kui ia mai la e Honokikiopua,
 Hono na umauma pali o Malelewaa,
 Ka oiwi hemolele o ke alo o ka pali,
 Pahee ke alo pali o Haihala i ka makani,
 Kupu no a kiekie iluna o Mauna Loa,
 Ka akelakela o na lehua o Kaana,
 I ku ia mai ke iu me Papalauahi,
 He like wale no ka hono o na kuahiwi,
 Ke nana iho ia Maohelaia,
 He nani ke kula pili o Kalaeloa,
 Ka molalalale i apua Kalamaula,
 I ka hoomea e ke kiu alani makani o Lehua,
 Miki mai la ke kai a ke Kioea,
 I ka lana no a ka pua Akulii.
 Hoolale ke o a Kalailuahine,
 E akahēle oe e lawelawe malie,
 E lana auanei ke kaha o Iloli,
 I ka hoamāhui ia e ke Kaeleloli,
 Loli malie i ka lai ka ia o Kalaau—e,
 A pa lehua noe ke kai o Hilia,
 A Hilia au ike i ke lai o ke Kaaō,
 E lawe ana ka Ikioe makani olalo,
 Makaukau ka hele a ka Waiolohia,
 Aohe nana wale iho ia Luahinehaele,
 I ka pau o ka manaō ia Nininiwai,
 Owai la kona kuleana o laila,
 E i aku o Makuakaahewahewa,
 Aloha wale na lehua o Waiakoloa,
 E hehia nei e ke Kumumaomaō,
 Ka oio hele la i Kaliu—la,
 Keiki hele la i ke kaha o Punakou—e,
 O ka hookohu no kau a ka mea hale,
 E kuhi ana no oe he oiaio,
 Maanei kaua e ke aloha—e.

Honolulu, Oct. 12, 1861. S. LOHIAU.
 (Lohiau 1861:1)

Appearing in the same paper about a month later that year was another *mele* containing a reference to the mountain Kaunuohua in the Kamakou Preserve. In the section pertaining to Moloka'i (highlighted), S.K. Kuapu'u (1861) writes "O kipa hewa ke aloha iā Kaunuohua, he pu'u ia..." (Lest love mistakenly "visit" Kaunuohua, it's just a hill).

KA HOKU O KA PAKIPIKA.

He mau rula maikai no kekahi i malama ia e ko Hawaii nei mai ka wa kahiko mai no a ke nee nei no. Eia kekahi oia mau mea, "o ka noho kahu ana no kekahi alii," a he aha kana hana imua o kona alii, eia, o ka malama i ke kapa o ke alii, ka ai, ka ia, ke kahili, ka lomilomi, ka hauleuku, ka malama ipu kakele, ke kiai i ka po i ke ao, ka mililani, ka hoomikioi, ka hii, ka hapai, ka hookapukapu. A heaha hou iho ua hana? Eia, aia a ike oe ua maikai, kuu alii, kuu haku, kuu milimili, kuu lei ai, kuu hanai, alaila e haku auanei ua kahu la i mele no kana alii, a punahele oe i ke alii, alaila, e ku auanei keia olelo, penei. "Moe malie i ke kai o ko Haku." Eia malalo nei he wahi mele no "Ka Hoku o ka Pakipika."

Hanau kalani kau ka HOKU
PAKIPIKA,
Kau ka Hoku paa ke alakai o na moku,
Kau o Helekela, he Hoku i ka palena o
ka Aina,
Uwe wale mai o Kaawela i ke anu,
Ka Hoku o ka Pakipika ka'u olioli,
Ka Nu Hou aloha a ka Hawaii,
Ka pua kamahao e kau nei,
I ohaoha kona kino me ke onaona,
E ke koena o ke kua i Kuamoo,
Hawaii moku nui eia ko milimili,
Milimili ka laau newa i ke kai,
I lohia lima ia o Kau e ke A-e,
E ai okana aku ana ia Kona,
E ai ku ana ia Kohala,
E ai ili ana ia Hamakua,
E ai ahupuaa ana ia Hilo,
Manuahi wale mai ka lua o Kilauea,
E ai kalana ana ia Puna,
Kapu aku la ka ulu lehua o Panaewa,
I lei kahiko no ka Hoku Pakipika,
Ke hea mai nei o Maui ia oe,
Ke ani peahi mai la iluna o Haleakala,
Na laolao kanaka ou mai ke kua o
Iao,
O ke ala apuupuu i Molokai,
O ka piina ikiiki o Lanikaula,
E hele oe e ke aloha ia ia e hele mai,
Eia mai ka Hoku o ka Pakipika,
Ka pua mailoko ae o oukou,
E ike ia kakou hookanaka,
O kipa hewa ke aloha ia Kaunuohua,
he puu ia,
E ka mokupuni o Oahu, e kilohi

oukou,
Eia ka Hoku Pakipika ke kau nei,
Ke haawi mai nei kona mau kukuna i
ka ike,
A nona kekahi malamalama o ka
poeleele,
Mai makau oukou i ka ua Awa,
Mai puiwa oukou i ka lapa a ka
uwila,
Eia mai ka Hoku Pakipika,
Ke alo aku la i na pohaku paapaaina
o Iukuwa,
Aole ona makau i ke anu, me ke
koekoe,
A ke hea mai nei oia ia kakou,
Owau no ka hookele a ka Hawaii,
Aole o lakou panana mamua,
O Kaiahua kanaka holo moana,
O kana pule holowaa o Huano,
Hamama ka waha i ka moana,
Aloha ino ka wahine, me ke keiki,
Huli ae la nana i ka Hoku aina,
Hai ke ola no ka Hoku,
Ka Hoku Pakipika, aloha oe,
O Kauai kela he moku ua lewa i ke
kai,
Ua ku ki'a a ka po ia Liamaloa,
Ua oni wale i ke anu o Ainaike,
E ao o ike mai e Kalamamaihiki,
Elua hana i holo i ka manao,
Ua pili pono ka la i Papaenaena,
Ku mai kaena ke'hu kai olalo,
Akahi ke ana ka luhi wale i ke kai,
I ka hunahuna ehu wai o Kikiaola,
E kiki ana ka auwai a ka Melehuna,

E wili ana ka wai ula me ka wai kea,
 Hooniponipo ka wai i Mahaihai,
 Haina ae la e oe ka maka oia pua,
 O ka upolu a ka lau o ka Inia i ka
 makani,
 Makani mai nei luna o Kaala,
 Aala no oe i pili ia me ke aloha,
 E ka Hoku o ka Pakipika aloha oe,
 Ke peahi mai nei ka Niihau o kaua,
 Ke kikii mai la iluna o Kaali,
 E walea ana i ke ahe a ka makani
 Naulu,
 Ka Hoku Pakipika ka lakou kani a,
 I makee ai a ka naau lia ka po,
 I huli ai a ka manao wela loko,
 Auhea oukou na kanaka Hawaii,
 Ke keiki a kakou ua hanau,
 Ka elele a kakou holo ka hana,
 Ka Hoku o ka Pakipika he inoa,
 E o no oe i kou inoa e
 Kahanohanomakaokalani,
 Ka Hoku Pakipika e kau nei,
 Nana ia ou hoa holoholo o ka wa
 kamalii,
 Puka ka la i Kumukahi, ilaila oe,
 Komo ka la i Lehua pau kou palena,
 Ano mai ke ahiahi, aia oe i Anaki.
 Kau mai la ke ahi o Kamaile,

Hahai ae no e like me Aahoaka,
 Ka ukali a ke ahi me ka Auhau,
 Ka-kaiele hewa i ka pali o Nualolo,
 Iho mai ke ahi anuanu i na pali,
 Ke kakoo loa a ke ahi hele i ke kai,
 Haaheo mai ke ahi a ka papala,
 Hele huhu ke ahi me ka momoku,
 Pua ka auhau welo i na pali,
 Ua unua e ke kai ke one o Luhi,
 Ua molale ke kumu pali o Kalalau,
 Hikikii lua i ke one o Hoohila,
 Pau pono na opilua a ka makemake,
 Okipau ka hana i ke one kani o
 Nohili,
 Ka houhene-uhene a hano ka leo o ke
 kai,
 Haawali e mai ka Puukolu,
 Newa hoona i ka malu o ka ohai,
 Ka Hoku Pakipika i ke'hu a ke ao,
 Akahi au a ike ia Kaunalewa,
 Ua nani ua iliwai like ia e ka liula,
 Ua oluolu pono o Lehua i ke kai,
 Ka Hoku Pakipika he inoa,
 E—o—no, mai Hawaii a Niihau.

S. K. KUAPUU.
 Honolulu, Sepatemaba, 19, 1861.

This name chant written by J.W.E. Lono (1862) contains a reference to Kaunuohua.

HE INOA NO KEAOPOLOHIWA.
 Keapolohiwa he inoa—la,
 O Kapuakoolau he makua—e,
 E hoi ka lai i ke kaona—la,
 I ke kai hone o Mamala—e,
 Malama moku no oiala—la,
 Kapena poe no hoi au—e,
 E pii na kela omua—la,
 Ua nui ka huini o hope—e,
 I walea na ona o luna—la,
 I ka hula a ka poe hanohano—e,
 E hana mau oe i laki—la,
 I ku ko liki pau paka—e,
 E ake hoi au e pili—la,
 Me Kaunuohua i ka pali—e,
 Haina ka inoa i lohe—la,
 O Keaolipolipo he inoa—e.
 J. W. E. LONO.

In the Tale of Hi‘iakaikapoliopole (*Ka Hoku o ka Pakipika* 1862), Kaunuohua is mentioned as a cliff at Moloka‘i. Fornander translated “A Molokai nui a Hina, A Kaunuohua he pali” as “On famed Molokai of Hina, is Kaunuohua, a cliff” (1919–1920).

HE MOOLELO NO HIIAKAIKAPOLIOPELE.

Helu 8.

Ma ia hana ana a Malaehaakoa ma, makemake loa o Hiiakaikapoliopole, i aku ia Wahineomao, ai malie auanei oe i kau wahi ai, alaila, ai malie loa iho la o Wahineomao i kana wahi mea ai, ke hula la no laua la.

E o e mauna i ka ohu ka pali,
Kaha ka leo o ka ohia uwe,
Ike au i ke ahi ai ala,
Ka luahine moe nana,
A Papaenaena wai hau,
A waa ka uhi, ilaila pee mua,
Pepepe waena, o pepe ka muimui,
O kihele ia ulu, Kamakahakaikea,
O Niheu kalohe, kumaka kaha la,
Elieli kau mai.
A Molokai nui a Hina,
A Kaunuohua he pali,
Hapuu ke akua liliu,
Puka mai Pele ke akua nui,
Me Haumea me Hiiaka,
Me Kukuena me Okaoka,
O ka a ke ahi iki e—a,
He onohi no Pele,
Kanakaokalani la—e,
Elieli kau mai.

In the following tribute for the six year-old child of John Kipi and Mrs. Mere who had recently passed away, S. Paaluhi (1867) wrote “a aloha ia la hoi o Kaunuohua he puu ia.” This is obviously a version of the *‘ōlelo no‘eau* that shows how deeply a person may be loved.

Make i aloha nui ia.

E KA NUPEPA KUOKOA E; Aloha oe:

Ua make iho nei he keiki i aloha ia e ka lehulehu ma ke kino, oia hoi o Lodana Alapai, i ka la umikumamahiku o Novemaba nei. M.H. 1867. Ua lawe aku ke Akua i kana o ka uhane, ua hala ka huina o na makahiki wahi a Ioba, ua hoi aku ia i ka poli kawau o ka honua, a me ka hale makamaka ole. Ma ka hekuawa o Wailuku nei kona wahi i make ai.

Ua hanau ia ia ma Makapala i Kohala Akau, Hawaii, i ka makahiki 1861, Mei 14, na John Kipi a me Mrs. Mere, penei kana olelo i kona wa e ola ana, “E pule oukou no‘u, e papa, e mama, a me na lehulehu o kuu kino, e hoomanao oukou i ka Makua Mana Loa ma ka lani no‘u.” Kupanaha ka naauao lua ole o ke keiki i ke kauleo mai i ka papa e pule

nona, oiai hoi, eia no keia keiki i ke kulana naaupo, he eono no makahiki a oi aku, pela auanei na pokii o‘u, mamua o kona pilikia ana, e hoomanao aku ia i ke Akua, oia hoi kuu lahui aloha o Hawaii nei. A make aku la ia, ulu kana mau hana pono, pela i olelo ia ma Halelu 92:12. E ulu no ka poe pono e like me ka laau Pania, a pela aku, mamua o kona hoolewa ana, ua kameo mua ia ae makou na keiki kula kahuna, a me kekahi mau keiki o Lahainaluna, a me na keiki puhi ohe o ua malu Hekuawa nei, eia nae, ua ane kanalua iki no kahi manao no ia mea, huli ae la a‘u a kilohi iho la i ka Ledina ike o ko‘u mau maka ma ka Baibala, ike iho la eu ana Kekahuna 7:2. Ua oi aku ka maikai o ka hele ana i ka hale o ke kanikau mamua o ka hele ana i ka hale ahaaina lealea.

Hoolewa ia kona kino kupapau ma ka Poalua, hora 3 ahiahi, a ua hoonono ia ka huakai penei: Mau keiki hookani pahu, eha poe keiki puhi ohe, no Lahainaluna, na keiki kula kahuna, na keonimana, na lede iho o ka aoao palupalu me na hupa e kaiue kolani ana; ua kai aku a komo ma ka luakini laa o ke Akua ma Wailuku nei, ua haiolelo no o Rev. Kakina a pau ka halawai, hookuu ia ke anaina holookoa me ka maluhia no, ia makou nae e kai huakai ana, ua hoopulu ia iho na kuluwaimaka a ke aloha o ka lehulehu holookoa. Hoomanao ae la au i kekahi lalani mele a ka poe kahiko penei no ia:

“Kulu ka waimaka uwe ka opua.

He waimaka pu-a ia ia na ke Koolau,

Eia ua aloha la ke aloha nei,

E aloha ae ana i kuu pua laha ole ua lilo.”

O ka uwe kanikau kumakena mai a na makua me ke aloha no, a aloha ia la hoi o Kaunuohua he puu ia, he hua ka hoi keia mai loko aku.

S. PAALUHI.

Kula Kahuna, Wailuku.

Another very similar version of the same ‘ōlelo no‘eau appeared in an obituary for Mary Kaluli in *Ka Nupepa Kuokoa* in 1868. This version was written “a aloha wale ia ka hoi o Kaunuohua he puu ia.”

MAKE I ALOHAIA.—Ua palapala mai o F.R. Kahao ia makou i ka make ana o Mary Kaluli ma Heeia, i ka la 29 aku nei o Iulai, a ua nui ko lakou aloha ia ia, nawai la hoi e ole ke aloha, a aloha wale ia ka hoi o Kaunuohua he puu ia, pehea hoi kakou e aloha ole ai ia kakou iho.

In 1875 this article, “Na Anoai o ka La,” appeared in the Hawaiian language newspaper *Ka Lahui Hawaii*:

Na anoai o ka la.

Heaha ka mea i like ai ke keiki kolohe me na hua helu 8,000 ma ka helu Hawaii? No ka olelo ia‘na, Mano-mano kahi keiki kolohe?

I hea kahi e hui aku ai na maka? I Kou, e like me ka olelo, Hui aku na maka i Kou.

Owai ka aina i like me Kaneiahuea? O Kaupo, e like me ka olelo ana, Kaupo Kaneiahuea?

I ka popoki e uwe ana i kana mau keiki no ka pololi, maalo ae la ka iole, pane mai la ka popoki, “E ka iole, e malama oe i a‘u mau keiki a hoi mai au, na‘u e uku aku ia oe.” Pane aku la ka iole, “Ua oluolu loa au e malama.” I ka popoki no a hala aku, o na keiki o ka iole noho ana iloko o ke aa. He miki no ka! ka iole i ka hemahema, i hoi mai ka hana aole na keiki, huhu loa ka popoki me ka hoomakakiu mau i ka iole a hiki i keia wa.

Heaha ka mea paa loa e moku ole ai i na waikahe he nui? He aloha, e like me ka olelo, “O ke aloha aole ia e moku ia e na waikahe he nui?”

Heaha ka mea i like ai o Puna i Hawaii me Wailua i Kauai? No ka haalele i na hoa‘loha, e like me ka na haku mele olelo ana.

Haalele i Puna na hoa‘loha,

Haalele i Wailua na hoa‘loha—e.

Heaha ka mea i like ai o Kaunuohua me ka mea aloha? No ka honi mau o ka ihu i ka pali o Kaunuohua ke pii mai.

He aha ka mea i like pu ai ka ilikeokeo me ka iliulaula? He koko, ua like no nae ke kahe mai. OAHU.

This is a *mele māka'ika'i*, or a travel chant, “praising and documenting [one of] the many adventurous journeys undertaken by Emmalani throughout the islands” (Nogelmeier 2001:v). Queen Emma Kaleleonālanī (1836–1885) was married to Alexander Liholiho, King Kamehameha IV, in 1856 and had a love of travel and adventure. The composer of this *mele*, Hikoni (Queen Emma’s aunt by marriage), refers to Kaunuohua in the fourth line.

O Ha'upu ka i'oni pii i luna	Ha'upu raised itself upward
Pipi'i no ke keha i ka makani	Rising proudly in the wind
Ke kehakeha hanohano i Oloku'i	Proudly and majestically toward Oloku'i (1)
A'o ia ku'i ku'iku'i i Kaunuohua	Reaching, ever reaching to Kaunuohua (2)
Kela ka pali o Ahumauna	High is the cliff of Ahumauna
Kelakela no, i kela i ka makani	High indeed, it was the wind that made it look high
Kukuohi ka pali o Malelewa'a	As it sweeps up the cliff of Malelewa'a (3)
A 'o ia wa'a, he wa'awa'a	Like a canoe, it is hollowed inward
Ke kanaka nihi kipapali ma Kahiwa	A man walks gingerly on the cliff at Kahiwa (4)
Ho'olewalewa a ke aho a ka lawai'a	Letting his line down as he fishes
I ka puwalu makawalu a ke anuenue	Many are the rainbows arching
E pipi'o ana i ke kai o Mokapu	Over the sea at Mokapu (5)
A 'o ia kapu	There is a kapu there
Kapu na pali 'okalakala i ka Ho'olua	Kapu are the cliffs, roughened by the Ho'olua breeze
'Okalakala no hao'eo'e na kuahiwi	Rough and tall are the mountains
Ke kuahiwi kahela o Waialua i luna	A mountain is Waialua (6) reaching up high
A'o ia luna	Up to the heights
E komo kapa au a holo ka'a kaua.	Let me be dressed, then we shall go for a ride.

1. Peak and fortress between the Wailau and Pelekunu valleys on Moloka'i.
 2. Peak in Pelekunu, Moloka'i.
 3. Point at Wailau, Moloka'i.
 4. Highest waterfall in the Archipelago, on the cliffs near Wailau, Moloka'i.
 5. Islet offshore of Waikolu, Moloka'i.
 6. Peak and valley in the *na'e*, or east side, of Moloka'i.
- (Nogelmeier 2001:100)

Another of the *mele māka'ika'i* composed for Queen Emma, this one by Pa'alua, describes the north shore of Moloka'i and ends at Kaunuohua with the line "I luna Kaunuohua, he ali'i no ka pali" (And there too is Kaunuohua, a chief for the cliff).

Maika'i nani ka 'oiwi o ka pali	Fine and beautiful is the form of the cliff
Ka lala pali o Kahiwaiki	The extending precipice of Kahiwaiki
Ke kaulu o Malelewa (1) i ka makani	The brink of Malelewa'a's in the wind
E ho'ea nei e Kikipua	Now arriving, o Kikipua (6)
He lima kapu ia i Papala	It is a sacred hand at Papala (7)
E pa iki au i ka hala o Ke'iu (2)	I'll be touched lightly by the pandanus of Ke'iu
Ho'onui aku i Puiaha'unui	Extending out to Pu'aha'unui (8)
'Oia'i'o	It is true
Aia la 'o ka wai o Waiehu	There, indeed, is the water of Waiehu (9)
Ke puhia ala e ka makani	Being blown about by the breeze
Lele a'ela ka hauli he 'ino	The heart is taken terribly by surprise
Pohina noe i ka uahi a ka wai	A silvery mist from the spray of the water
Pulu ihola ka 'au hula'ana	Soaked completely is the impassable sea cape
E 'au ana i ke kai o Papio	Jutting out to sea at Papio
Ho'omaha aku i ke alo o Haihala (3)	To gain rest in the presence of Haihala
'Oia'i'o	It is true
'O ia 'o ku'u pali palalahiwa	That is my own darkened cliff
'O ku'u hale hiwa i 'Okala (4)	My own cherished home at Okala (10)
Ke hiwa 'ia la e ka ua ka pali o Kahiwa	The cliff of Kahiwa (11) is doted on by the rain
Hiwahiwa i Ko'olau i ka Ho'olua	Esteemed at Ko'olau in the Ho'olua wind
Ka panepo'o o Ahumauna i luna	The summit of Ahumauna is above
I luna Kaunuohua, he ali'i no ka pali	And there too is Kaunuohua (13), a chief for the cliff
'Oia'io, 'o ia paha (12)	True, perhaps it is so
E pa wai au, a e kepa kaua.	I sip of the waters, and let us both turn aside.

1. Probably Malelewa'a, but written as *Malelewa* or *Malele wa* in all three sources.
 2. *keui* in HEN 3.
 3. *Haikala* in HEN 3.
 4. In H.I.M. 59, the phrase *O ia ka* (Is that so?) is added between this line and the next.
 5. Point at Wailau, Moloka'i.
 6. Flat at Halawa, Moloka'i.
 7. Valley and stream between Halawa and Wailau, Moloka'i.
 8. Also known as Pua'aha'unui.
 9. Peak and wind-blown waterfall at Wailau, Moloka'i.
 10. Islet off Waikolu Valley, Moloka'i.
 11. Site of the highest waterfall in Hawai'i, 1,700 feet.
 12. This last part of the phrase, *o ia paha*, is not seen in H.I.M. 59 but is consistently used in other chants within this group and in the two other sources for this text.
 13. Peak at Pelekunu Valley, Moloka'i.
- (Nogelmeier 2001:134)

Credited to Mrs. K. Kaluna‘aina, this *mele māka‘ika‘i* for Queen Emma is also set on Moloka‘i. Wind names associated with Kaunuohua are given amidst wonderful imagery.

Maika‘i Maunaloa i ka makani Laiela‘e ihola he kakahiaka Laula ke kula o Kaiolohia (1) Pua ‘ehu ihola i ka la Ka la wela akula ka lau la‘au (2)	Maunaloa (6) is beautiful in the wind Clearly visible in the light of morning Expansive is the plain of Kaiolohia (7) Sparkling brightly in the sun The sun that beats warmly over the leaves of the trees
‘Owela akula i ka makani he Moa‘e ‘Anapu akula i ke kahakai o Kolo ‘Oia‘i‘o (3)	Warming in the breeze, a Moa‘e trade wind Flashing to the shore of Kolo (8) It is true
Kokolo ka leo o ka manu i Kala‘i Le‘a akula i ka ‘ae kai o Hilia Mapu ka leo i mapu a ke akua Me ku‘u kini manu i Ho‘olehua Ke pua ala i ke kaha o ;‘Ioli Welawela i ke kai i Punahoa (4) Ina i ka wai o Kamaloko (5) ‘Oia‘i‘o	The voices of the birds travel along to Kala‘i (9) Joyous at the seashore of Hilia (10) The voice issues forth as an essence of the gods With my flock of birds at Ho‘olehua Emerging at the strand of ‘Ioli (11) Blazing hot at the sea at Punahoa Prying away at the waters of Kamaloko It is true
Pahapaha ku ka mauna i ka malie Ho‘ohaha i ka la‘i na kuahiwi Ke ‘alo manawa o Kaunuohua Ua noho aloha wale me ka Pu‘ulena (12) Me ka Ihuanula‘au o Kawela (13) ‘O ka Makaolehua kekahi (14) Ua pa‘a ka manaio i Mokuohua ‘Oia‘i‘o,‘o ia paha	The mountaintop rises and extends in the calm Peaceful are the mountains in the serenity Kaunuohua (15) endures the seasons Residing affectionately with the Pu‘ulena wind And with the Ihuanula‘au wind of Kawela (16) And the Makaolehua wind as well The mind is made up at Mokuohua (17) True, perhaps it is so
E pa wai au, a e kepa kaua.	I sip of the waters, and let us both turn aside.

1. Halaula ke kula o Kaiolohia in HEN 3, p. 374.
2. *ka laalaau* in HI.M. 59, p. 7, and HI.M. 74, p. 49.
3. Throughout this group of chants, the phrase *Oiaio, o ia paha* appears at the end of each *pauku*. Only *Oiaio* is used in the first two *pauku* of this text, but *o ia paha* appears in the last verse, showing consistency with the group.
4. I walewalea i ke kai o Punalaa in HI.M. 59, p. 7, and HI.M. 74, p. 52; I lawelawe lea i ke kau Punalaa in HEN 3, p. 374.
5. *Kamaloke* in HEN 3, p. 374.
6. This Maunaloa is on the west end of Moloka‘i.
7. Plains east of Mo‘omomi, Moloka‘i.
8. Wharf and gulch in Kamalo, Moloka‘i.
9. Perhaps Kala‘iakamanu, Moloka‘i.
10. The ocean area between Pakanaka Pond and Kalama‘ula, central Mol
11. Central Moloka‘i.
12. *puupea* in all sources except HI.M. 59, p. 2.
13. *o ka wala* in HEN3,p.372.
14. *O ka maka o Lehua kekahi* in HI.M. 59, p. 7, HI.M. 74, p. 52, and HEN 3, p. 374; *Omaka o Lehua* in other texts.
15. Mountain peak at Pelekunu, Moloka‘i.
16. Place of refuge, south Moloka‘i.

17. Gulch and cultural site, Kamalo, Moloka'i.
(Nogelmeier 2001:136)

This is an excerpt from *He Mele Nalu no Ke Alii* (A Surf Chant for the Chiefess). Only a section is presented here because of the length of the *mele* but interested readers are referred to Nogelmeier (2001:248) for the complete composition. Remarkably, in many older writings it is the mountain Kaunuohua that is written of rather than the highest peak of Moloka'i, Kamakou. In this passage the mountains Kaunuohua and Maunaloa, the high mountains of east and west Moloka'i, are portrayed as waves.

E ola 'o nā lani e, 'o ke ali'i nona ua nalu
Ke ō lā, ō mai ana ho'i ē
He hu'a no ka nalu 'o Lānai
I laila 'o Kaululā'au, ke koa nāna e pa'a ka papa o ke ali'i
'O ka 'oi nō 'o Kaleleonālani
Ke ali'i nāna i he'e nā 'ale o Ānehenehe
'Ike mai Molokai a Hina
Eia a'e ke ali'i nona ua nalu
Maika'i Lili hemolele i ka lā lena
Kū mai 'o Maunaloa, ka nalu i uka o ka 'āina
He 'ōpu'u no ka nalu o Kaunuohua
He pae 'ana na ka nalu o Haleolono
'Ulonō nā moku a puni i ka nalu o ke ali'i
E ui, e nīnau ka pono
'Auhea ka papa o nā lani e
Eia iho 'o Kalaeokalā'au
Ku a'e, a 'a'e, a kau, a noho i ko papa
Pae aku i nā 'ale o Kawaihoa
'Ike mai O'ahu o Kākuhihewa
Eia aie ke aliii nona ua nalu
Maika'i Alaka'i pahe'e i ka nalu
Nānā aku 'o Konahuanui
'O ka nalu i uka o ka 'āina

May the chiefs live on, oh chiefess for whom is that wave
Responding there, giving answer
Lana'i is white-water for the wave
Kaululā'au (32) is there, the warrior who will hold the board of the chiefess
Kaleleonālani is the utmost
The chiefess who surfed the billows of Anehenehe
Great Molokai of Hina sees
Here comes the chiefess for whom is that wave
Beautiful is Lili, flawless in the golden sun
Maunaloa (33) rises, the wave over the land
A swelling for the wave of Kaunuohua (34)
A landing by the wave of Haleolono (35)
All of the islands cry out to the wave of the chiefess
To query, to ask what is right
Where indeed is the board of the royal ones
Here comes Kalaeokalā'au (36)

Rise up, and step upon and take your place and ride your board
Mount the billows of Kawaihoa (37)
O'ahu of Kakuhihewa sees
Here comes the chiefess for whom is that wave
Beautiful is Alakai, slippery from the wave
Konahuanui (38) observes
The wave washing over the land

32. Historical chiefly conqueror of Lana'i.
33. Mountain on west Molokai.
34. At Pelekunu, Moloka'i.
35. Harbor at west Moloka'i.
36. Southwest point of Moloka'i.
37. Point on the southeast end of O'ahu.
38. Highest peak in the Ko'olau Range, O'ahu. (Nogelmeier 2001:248)

The following chant was composed in honor of King Kalākaua (Hawaiian Historical Society 2001) and contains a reference to Kaunuohua. The composer, Kaniua, wrote “Maikai ke ku a Kaunuohua.”

Kiekie maikai ka hiwa i ke kai,
Oluohu me he ke lau ki la i keiu,
I ka huluo ia e Kikiopua e,
O kuu wai ehu i Waiehu,
Ke malama ia la e ka makani,
O ka huna kai ka iluna o Kohala,
I ka liko hala o Malelewaa,
Alawa ae io luna o Ahumanu,
Maikai ke ku a Kaunuohua,
A kakau ka pali o Hakaano,
Ka umauma ka hanai pea o Haupū e ela—e,
O kuu makani Makaolehua,
Hoohanu lauāe mokihana,
He ka maliko lau naena,
Paoa i [illegible] a ihuanu luna i keala,
Puia kanahale mai o aenei,
Puia ka pua aui e ka nani e ela—e,
He nani no he hemolele ia oe,
He ae aukai ia na ke aloha,
He moe poli he pii lae na ia nei e ela—e.
NA KANIUA.

The following is an excerpt from the chant recited by Kaikilani in honor of Lonoikamakahiki as he played *konane* with Kakuhihewa at Kailua in O‘ahu. Curiously, Kaunuohua is described here as being “low” as opposed to more lofty descriptions in most other accounts. Kaunuohua and Nihoa are places found both on Moloka‘i and Kaua‘i, so it is possible that the chant is referring to Kaua‘i. It is important to consider the context of an *oli* or *mele*, as many place names occur on more than one island.

<p>Haahaa o Kaunuohua, He puu kolo i Nihoa: Kela pali-e, Keia pali-e, Palaau-e Ka hiwa i lalo-e. A no-ho— A noho e Ku, Kuhiu palu-e Kukahaulani (Fornander v4:304)</p>	<p>Kaunuohua is low Like a crawling hill at Nihoa. That cliff, This cliff, That fence of wood. The great one there below, He sits; He sits, he stands, He points, he sticks out his tongue, Kukahaulani.</p>
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This excerpt from “He Mau Pule Pegana” (“*Various Heathen Prayers*”) in Fornander’s *Hawaiian Antiquities and Folk-Lore* (v6:46–48) is strikingly similar to a passage cited just previously.

Aia, aia ko ipu e Lono, ke hele ae la e kalalau ka waha, e kuhikuhi ka lima, kunou ke poo e awihi na maka, o hilahila i ola; aole i ulono ia ‘ku kilau pali e, wai o ahu, e ahu mauna i luna haahoa o Kaunuohua, hoomau puu e, he puu kolo iho Nihoa; kela pali e, keia pali e, Palaau e, kahi wai ilalo e, e noho o Kuhihiki.

Say, there! There is your container, O Lono, getting to the point where the mouth will move, the hands will point, the head will nod, the eyes will wink, lest shame awakens. No earnest prayer has reached the hills to store water; to store it mountain high until Kaunuohua is lowered; and yet keep storing, for a creeping hill is Nihoa. Those hills, these hills, Palaau ye water below, stay on, stay on at Kuhihiki.

Also documented by Fornander (v6:493) is the “Prayer of Malaehaakoa” in the legend of Hi‘iakaikapoliopole. In this passage Kaunuohua is simply remarked to be a cliff on Moloka‘i, though its fame may be simply unstated.

<p>A Molokai nui a Hina, A Kaunuohua he pali, A kukui o Hapuu, Hapuu ke akua liilii, Puka mai Pele ke akua nui, Me Haumea me Hiiaka, Me Kukuena me Okaoka, O ke a kea hi iki e—a He onohi no Pele, Ka oaka a ka lani la—e Elieli kau mai.</p>	<p>On famed Molokai of Hina, Is Kaunuohua, a cliff, When Hapuu was lighted— Hapuu the small god— Pele came forth, the great god, With Humea and Hiiaka, With Kukuena and Okaoka. When the small fire lights, it burns [As] an eye-ball of Pele. The flash-light of the heavens is it. [Let] awe possess me.</p>
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The same passage is given in Emerson (1915:115, 125), though with a slightly different translation. Interestingly, this translation uses the more obscure name of Unuohua for Kaunuohua and the footnote mislocates it too far east.

<p>A Moloka'i nui a Hina, (17) A Kaunu-ohua (18) he pali, A kukui o Haupu. (19) Haupu ke akua li'ili'i; Puka mai Pele, ke Akua nui, Me Haumea, me Hiiaka, Me Kukuena, me Okaoka: (20) O ke a ke ahi iki, e a! He onohi no Pele, Ka oaka o ka lani la, e! Elieli, kau mai!</p>	<p>On famed Moloka'i of Hina, At the pali of Unu-ohua, Where burn the lamps of Haupu, Assemble the throng of little gods. Then comes forth Pele, a great god, Haumea and Hiiaka, And Kukuena and Okaoka: If the small fire burns, let it burn! Tis the beaming of Pele's eye, The flashing of heavenly fire. Wonder and awe possess me!</p>
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17. Hina, the goddess with whom Wakea consorted after he had divorced his wife Papa by spitting: in her face. Hina became the mother of the island of Moloka'i. From such a distinguished parentage arose the proverbial saying "Moloka'i nui a Hina."
18. Kaunu-ohua, a hill on Moloka'i between Halawa valley and Puko'o, where is said to repose the body of Pele.
19. Haupu, a hill on Moloka'i.
20. Okaoka, said to be the flame-body of Pele, or the small stones, 'ili'ili, that entered into the composition of her body.

An article written by Mrs. K. Beringer in Wailau Valley, Moloka'i, appeared in the Hawaiian language newspaper *Ka Nupepa Kuokoa* in 1921. In it she says that the cliffs of the north shore on Moloka'i are the most beautiful she has ever seen and quotes a song to illustrate her feelings. Kaunuohua is again associated with cliffs.

U'a manao hoi au o Maikai Waipio,
he alolua na pali, o ia la hoi ka oi,
a i ole ia o na pali ku'i e ku'i o
Makana la hoi, eia ka o keia aina i
holo ke mele.
Huki e lele iluna ke ku a Oloku'i,
Ke kaulu pali lala hale o Kaunuohua.
E hoolikelike ana elike me Ahu-
mauna,
Me ke kihi lala peahi o Haupu,
I paia e ka honu nui kua e'ae'a.
Mae'a ke kanaka i ke kaunu a ka moe
I ke kaomi lima a ka ipo i Keiu-a,
O ka'u ipo no ia o ke aloha,
O ko'u meemee no ia o ka meahou,
Ho iho kua e ke aloha a eloelo-a.

Ua mana‘o ho‘i au o Maika‘i Waipio, he aloha nā pali, ‘o ia la ho‘i ka ‘oi, a i ‘ole ia o nā pali ku‘i e ku‘i o Makana la ho‘i, eia ka o kēia ‘āina i holo ka mele.

Huki e lele i luna ke kū o Oloku‘i,
Ke kaulu pali lala hale o Kaunuohua.
E ho‘olikelike ana e like me Ahumauna,
Me ke kihi lala pe‘ahi o Haupu,
I pā ‘ia e ka honu nui kua e ‘ae ‘a.
Mae ‘a ke kanaka i ke kaunu a ka moe

I ke kaomi lima a ka ipo i Keiu-a-

O ka‘u ipo no ia o ke aloha,
O ko‘u me‘eme‘e no ia o ka mea hou,
Ho‘iho kāua e ke aloha a ‘elo‘elo-a-

I thought that lovely Waipio with her two cliff sides was the most beautiful, or the sheer pali of Makana but I find it is this one, famed in song thus:

*High above Oloku‘i rears itself,
A row of pali shelters the house of Kaunuohua
They try to make themselves like Ahumauna
And the wind-swept top of Haupu
That was lifted by a thick shelled turtle.
Man longs after that of which he dreams,*

For the pressure of his sweetheart’s hand at Keiu-a-

*My sweetheart is a loved one,
Of whom I yearn to hear,
Let us go, loved one, till we’re drenched.*

(Translation from BP Bishop Museum HEN collection)

The following is an excerpted paragraph from a 1925 Hawaiian language newspaper article paying tribute to Vitoria Kahiamoe Akau, who had recently passed away. This paragraph includes one of the ‘*ōlelo no‘eau* for Kaunuohua, “a aloha wale ia ka hoi o Kaunuohua he wahi puu wale no” (even Kaunuohua, a hill, is loved).

Ae, ua eha ke kamahela o Wailua i ka makani kiu a ke aloha ole, a ke niniau nei i ka maka a Kahewahewa; e huna iho ana i ke aloha e pee maloko, ha‘i ka waimaka hanini mawaho, i ikeia i ka uwe ana iho; nawai hoi e ole ka uwe i ke aloha o ka makua; **a aloha wale ia ka hoi o Kaunuohua he wahi puu wale no**; o ka oi loa aku paha keia, o ka mea i ike i ka ehaeha, ame ka luhi ahiki i ka nui ana e hoona ae ana i ke aloha, pehea la ia e pau ai. (Akau 1925:6)

Another article paying tribute to someone recently departed was written by Gulstan Poepoe (1926) and appeared in *Ka Nupepa Kuokoa*. He wrote to commemorate the passing of his wife, Mrs. Lahapa Poepoe, and also included the ‘*ōlelo no‘eau* referencing Kaunuohua, “a aloha wale ia ka hoi o Kaunuohua he wahi puu wale no” (if love can be bestowed to Kaunuohua, which is only a hill, meaning *if a hill can be loved, how much more can you be loved*).

Hala Kuu Wahine Hoopono Nani Wale Ka Haulehia Ana o na Haipule.

E kuu Solomon Hanohano, ke kapena hooni o ka Nupepa Kuokoa; Aloha kua: — E ae mai hoi kou olu-i ka‘u puolo waimaka hoowalania puuwai ma na kolamu o ka kua hiwahiwa, a nana hoi ia e hiilani aku i ike mai ai na kini makamaka ame na hoaloha o kuu wahine aloha i hala. Mrs. Lahapa Poepoe, mai ai ka moana-kai o Hoalua i ka hikina a ka la ma Haehae, a hoea i Kaula i ka mole olu o Lehua, ka muli o na moku, ka palena o na

kai ewalu o Hawaii, mai ka hulikua a ka huli-lau o na pe'a o ka aina. Ae; ua lawe o Lehua i ka la kolili i ka ilikai, lilo kuu hoapili i ka ehukai olalo. Kulukulu kahi kuu waimaka i ka hana a ke aloha, eha niniau ka pua koai'e. Ua eha ka-nahele o Wai-ka! E huna iho ana au i ke aloha e pee e nalo maloko haina ka waimaka hanini mawaho, ike wale ia mai no i ka uwe ana. Nawai hoi e ole ke aloha, **a aloha wale ia ka hoi o Kaunuohua he wahi puu wale no**, aiwa loa aku paha koia, o ka hoa puili o ka hanu e moe pono ole ai ka po.

Traditional Land Use

The mountainous upland areas of the Hawaiian Islands were generally not inhabited by people. These areas were cold, wet and not as hospitable as lower elevations. The mountain regions did, however, supply important raw materials and were visited to exploit these resources. Trees growing in the mountains were cut for wood used to make canoes, bowls, tools, weapons, musical instruments and god images; birds were caught for their feathers which were used in capes, helmets, *kahili* and *lei*; ferns & foliage were gathered for decoration and other purposes; '*ie'ie* (*Freycinetia arborea*), a vine, was used to make fish traps, feather helmets, god images, musical instruments, twined baskets and other such things (Krauss 1993). The extent to which people on Moloka'i visited the area of the present day Kamakou Preserve, and the circumstances surrounding these visits, is not known and can only be inferred.

Hawaiians were prolific in naming the natural world around them and the mountains were no exception. A general description of the names applied to different mountain regions from a Hawaiian perspective is given in the Hawaiian newspaper *Ke Au Okoa* in 1869.

Eia kekahi kapa aua i na inoa o ka mauna a me ke kuahiwi. O ka mauna ka inoa nui o ke kuahiwi i kapa ia aku ai, aka, na nui no ka inoa ma ke ano e pili ana i ka mauna, eia kekahi mau inoa e pili ana i ka mauna. O kahi ma ke kua, a ma ke alo o ka mauna ma ka piko pono o ka mauna, ua kapaia he kuamauna, a o kahi malalo mai o ke kusmauna, he kuahea, a makai mai o ke kuahea, he kuahiwi, aia malaila e hoomaka mai ai ka ulu ana o na laau liili, he waonabele ia, a makai mai, ua loloa ae ka laau, o ka waolipo ia, a makai o ka waolipo, o ka waoeiwa ia, a makai mai o ka waoeiwa, o ka waomaukele ia, a makai o ka waomaukele, o ka waoakua, a makai mai o ka waoakua, he waokanaka ia, oia kahi a na kanaka e mahiai ai, a makai o ka waokanaka, ka amau, a makai o ka amau, he apua, a makai o ka apua, he pahee, he ilima, a makai olaila he kula, he apoho, a pili i kaubale, a makai o kaubale, he kahakai, he kahane, a he kalawa, a hiki i ka aekai, a paha ka poe kahiko i kapa aku ai i ka inoa.

(Kamakau 1869)

The translation of the above newspaper excerpt is as follows:

Here are some names for [the zones of] the mountains—the *mauna* or *kuahiwi*. A mountain is called a *kuahiwi*, but *mauna* is the overall term for the whole mountain, and there are many names applied to one, according to the delineations (*'ano*). The part directly in back and in front of the summit proper is called the *kuamauna*, mountaintop; below the *kuamauna* is the *kuahea*, and makai of the *kuahea* is the *kuahiwi* proper. This is where small trees begin to grow; it is the *wao nahele*.* Makai of this region the trees are tall, and this is the *wao lipo*. Makai of the *wao lipo* is the *wao 'eiwa*, and makai of that the *wao ma'ukele*. Makai of the *wao ma'ukele* is the *wao akua*, and makai of there is the *wao kanaka*, the area that people cultivate. Makai of the *wao kanaka* is the *'ama'u*, fern belt, and makai of the *'ama'u* the *'apa'a* grasslands. ... Makai of the *'apa'a* are the *pahe'e* [*pili* grass] and *'ilima* growths and makai of them the *kula*, open country, and the *'apoho* hollows near to the habitations of men. Then comes the *kahakai*, coast, the *kahaone*, sandy beach, and the *kalawa*, the curve of the seashore—right down to the *'ae kai*, the water's edge. That is the way *ka po'e kahiko* named the land from mountain peak to sea. (Kamakau 1976)

Another listing of the various mountain regions is found in *Native Planters* (Handy et al. 1991) and could easily be applied to the zones found within the Kamakou Preserve. Both this description and the previous one give partial insight into the traditional, pre-Western, Hawaiian worldview and land practices associated with this perspective.

Wao

Wao means the wild—a place distant and not often penetrated by man. The *wao la'au* is the inland forested region, often a veritable jungle, which surmounts the upland *kula* slopes on every major island of the chain, reaching up to very high elevations... The Hawaiians recognized and named many divisions or aspects of the *wao*: first, the *wao kanaka*, the reaches most accessible, and most valuable, to man (*kanaka*); and above that, denser and at higher elevations, the *wao akua*, forest of the gods, remote, awesome, seldom penetrated, source of supernatural influences, both evil and beneficent. The *wao kele*, or *wao ma'u kele*, was the rainforest. Here grew giant trees and tree ferns (*'ama'u*) under almost perpetual cloud and rain.

The *wao kanaka* and the *wao la'au* provided man with the hard wood of the *koa* for spears, utensils, and logs for boat hulls; pandanus leaves (*lau hala*) for thatch and mats; bark of the *mamaki* tree for making *tapa* cloth; candlenuts (*kukui*) for oil and light; wild yams and roots for famine time; sandalwood, prized when shaved or ground as a sweet scent for bedding and stored garments. These and innumerable other materials were sought and found and worked by man in and from the *wao*.

Kuahiwi

The term for mountain or mountain range—a mountainous region—is *kuahiwi* (backbone). *Kuamauna* is the mountain top, and *kualono* the high reaches just below it. *Mauna* is the term for a specific mountain mass, and may have a descriptive designation following, as Mauna Kea (White Mountain) Mauna Loa (Long Mountain)...

Material evidence does exist for Hawaiians visiting the Moloka'i mountains in the days before Western contact. When the Civilian Conservation Corps was conducting tree planting in the Moloka'i mountains during the 1930s they found an "abundance" of stone artifacts. Exactly what they found, and where, is not known, but may be assumed to be such artifacts as those associated

with wood-working, bird catching and possibly cooking. A newspaper article on their activities appeared in the *Maui News* in 1939:

Hui Pohaku Club Formed

Mr. Albert Weakman, director of Maunahui CCC camp, recently announced the formation of the Hui Pohaku among a number of the enrollees of the camp. The new club is designed to preserve the fragments of Hawaiian stone relics which are found in great abundance on the hillsides of the Koolau mountains during regular re-forestation work, and to study their design and use.

Mr. Weakman said that he encouraged the boys in this work as the relics would otherwise be lost to posterity, due to the rebuilding of top-soil through the new trees planted by the CCC boys.

Officers of the hui are: David Lani, president; Waldemar Duvauchelle, recording secretary; Isaac Kaai, corresponding secretary; Malu Bush, vice-president; Archie Cockett, curator; William Kaahanui, assistant curator; Richard Lee, research librarian. (*Maui News* 1939:1)

One source locates a stone wall-enclosed *pu'uhonua*, or place of refuge, “not far from Kamakou” (Cronin 1992:112). While Kamakou is located outside the boundaries of the preserve, the reference by the late Harriet Ne, who was a recognized historian and Moloka'i *kupuna*, seems to indicate that the *pu'uhonua* may have been in the mountains in the vicinity of the present day preserve:

Pu'uhonua, the Place of Refuge

It is not far from Kamakou where the ruined *pu'uhonua*, or place of refuge, of Moloka'i lies within stone walls. In ancient times, those who had angered the chief or the *kāhuna* and were in danger of death could go and stay—sometimes five years, sometimes seven years— within the enclosure. But at the end of that time, they were pardoned. My eyes have seen this place, and I know of a Chinese man who was accused of smuggling opium from China to Honolulu. The F.B.I. were very close to capturing him when he heard of his danger and fled to Moloka'i. First, he visited his wife and many children on the east end, and then he went to the *pu'uhonua*. His wife knew nothing of this place, but he had heard about it from the *kama'āinas*.

After he had been there for almost seven years, the F.B.I. heard where he was staying and came up. They did not enter the *pu'uhonua*, for they respected the sacred places of Hawai'i. But they waited. Then when he emerged, they captured him.

It was a very famous case, for his defense was not about the opium at all but about the seven years he had spent in the *pu'uhonua*. His lawyer was old man Trask, who knew all the old ways. It is said that he got the book of laws and showed the court exactly where it says that if you stay in a *pu'uhonua* for more than five years, you are no longer guilty of a crime.

The lawyer for the F.B.I. laughed. “That is the old law. That law has no power.”

“But it has not been amended or changed or canceled out,” said old man Trask.

And the judge ruled that the law was still in force. But after that, the legislature amended the laws, and now the *pu'uhonua* is in ruins. (Cronin 1992:112–113)

Another possibility is that the *pu'uhonua* referred to by Harriet Ne above is the site in lower Kawela recorded by Summers:

SITE 140A. PU'UHONUA OR PU'UKAUA, KAWELA

This site is located on the ridge separating W and E Kawela Gulches, at an elevation of about 450 ft. The ridge has a flat top about 100 ft wide, and steep sides. Walls are situated along its edges, and there are two transverse walls about 75 ft apart. Within this area are several stone enclosures...

Local tradition terms this place a *pu'uhonua*. The structures suggest a *pu'ukaua*, a fortification or stronghold. However, the site could have been used for both purposes, since "Some fortifications (*pu'ukaua*) were *pu'uhonua*, when they were close to those about to be captured in battle." (Summers 1971:92).

Historic Period Land Use

This section includes an overview of the various activities and projects that have been conducted in the Kamakou Preserve throughout the historic period (post-1778). Again, there is not much material making up the historic record, but what was found is presented here.

Trails

There are a number of trails and jeep roads in the preserve that provide access to different areas. Probably the oldest trail in the preserve is the Kamalō-Pelekunu trail which crosses the mountain Kaunuohua along the east edge of the preserve. It is probable that this trail pre-dates western contact and was used until the early part of the 20th century. Some of the trails and roads may date to the days of sandalwood while others are related to water development and reforestation in the early 1900s.

Hitchcock (1836) wrote of the people of Pelekunu coming up the trail that lead over Kaunuohua:

Aloha no au ia lakou. No ka mea aole manao lakou i ke kiekie o ka pali, pii pinepine lakou i iho mai i Kaluaaha nei i ka pule.

(I admired them [the people of Pelekunu] for they thought nothing of the height of the cliff, but climbed it often to come to Kaluaaha here for the prayer service.)

The steepness and difficulty of this trail is evident in several accounts, including this one by Perkins in 1893:

July 13th–16th. Started about 6:30 a.m. with gun and about 30 cartridges in case I should see any good birds. Got to the Pali fairly dry, only one heavy shower... It began to rain, when I had gone some way down and the ridge was running with wet and slippery. I heard the Oo, but could not get to them... About one-third of the way down I was walking along an apparently good piece, not steep, with bushes on my left and a pali (or nearly) on the right. My gun was in my left hand, the axe in my right. The ridge here was overgrown with fern and I suddenly stepped on nothing, where a landslide had taken place on the right side, unnoticed by me. I naturally dropped both gun and axe and the former rested in the bushes, but the latter fell over the edge and I heard it striking the bed of the stream below. The ferns I grabbed hold of were stag-horn and tough and I pulled myself up carefully till my chest was well on top and all was well, except for my axe,

which I made no attempt to recover. I went slower and more carefully after this” (Perkins 1893b in Liebherr and Polhemus 1997)

Bryan commented on the Kaunuohua trail in the early 1900s:

The descent of this trail [from Kaunuohua into Pelekunu] is one of the gravest and most beautiful yet precipitous anywhere in the group. Few can climb it. (Bryan in Summers 1971)

Harriet Ne wrote a detailed account of the two-day trail crossing in the early 1900s:

We had a family trail in the back of Kamalo by Ioli Gulch, which led up to the ridge where there were three big boulders supporting a stick with a white flag. We used the flag to signal the family down at the coast. The pack horses would come back to the house once we reached the bottom of the trail. Then we would walk on by foot. The first five miles is on marshy ground.

Molokai has large tree ferns, larger than Hilo, so we had to get out of this marshy area before sundown. If we slept there we risked attack by wild pigs. It was always raining, so we would pull a branch from above and shelter until daybreak when the pigs disappeared. From the top of the hill we could see all the way down to the valley of Pelekunu. After having taro and dried fish for breakfast, we would make the final descent. (Cronin 1992)

According to another account, the trail was of the switchback type rather than straight down the slope:

Forbes was the only one to bring back *Gunnera* from the remote, precipitous, windward brink of the Molokai mountains. His locality was on the old trail which started from Kamalo, ascended the broad ridge to the cabin near Puu Kolekole, then northeastward across the swampy forest and bogs to the divide near Kaunuohua at about 4,535 feet altitude, then descended in switchbacks down the steep head wall on the north side. (Kay 1994:283)

J.M. Lydgate wrote that when he visited the area of the preserve in 1869, woodcutters had roads and trails in the mountain, some of which led to the coast (Thrum 1920:125). Later trails and roads were apparently built in association with Moloka‘i Ranch’s water development and tree planting activities:

Access into many parts of the preserve is relatively good via a number of dirt roads and trails. Most were developed in the early 1900s as part of Moloka‘i Ranch’s water system and for the state’s reforestation programs. (TNC 2006:7)

Iliahi (Sandalwood)

Iliahi, or sandalwood, was one of the earliest commercial products exploited in the islands. An article regarding the cutting of sandalwood under Kamehameha and the problems that resulted was written in the Hawaiian language newspaper *Ka Nupepa Kuokoa* in 1867 by Samuel Kamakau. This article does not specifically mention Moloka‘i but more likely than not Moloka‘i was included in the general quest for sandalwood as ordered by Kamehameha.

NO KA WAHIE ALA (ILIAHI.)

I ke ono a me ka hiku o na makahiki o ko Kamehameha mau makahiki ma Oahu, mahope iho o kona holo ana mai Hawaii mai maluna o ka Peleleu, he nui na moku e holo mau ana ma Manila, Matao no Kina mai, a ua nui no hoi na Kapena moku i olelo mai ia Kamehameha a me na alii, o ka laau wahie ala (iliahi), oia ka laau waiwai loa. Ua makemake loa ia kela laau ala ma Matao a ma na aina pake a pau. Nolaila, ua kena koke ae o Kamehameha, e huli nui ia kela laau ma na kuahiwi o Oahu, ua loa no a ua ike hoi na haole eia ma Hawaii nei ka laau ala. O Kupena McCook, Kapena Ogena, Kapena Kawilipota, Kapena Uwinihewa, Kapena Bartow a me Kapena Davids Openloa; ua lawe nui loa lakou i ka laau ala ma Matao a me Kanetona, a lawe nui mai i ka lolo. O ke ano o na lolo i lawe nui ia mai e kuai i ka laau ala, o ke kane-kopa, kuakalikea, omaomaokalikea, o ke pulu-sahu, o ke omaomao holookoa, o ka huluhulu-pohaka ulaula, o ka holoku pihapiha, o ka lainakini, o ka holei, o ka laholile a me na ano lolo he nui wale.

I ko Kamehameha noho ana ma Hawaii, iaita i hoi ai ia Kaniakani, ua kena aku oia i ka poe kalai laau ma na kuahiwi o Kona a me Kau, a ua haawi i ka lolo a me ka mamaki i ka poe kalai laau, a haawi nui loa aku la i ka ai a me ka ia. A o ka lawe ana i ke awa ku moku, na na makaainana o Kona a me Kau; a pela no hoi o Kehala a me Hamakua. A pela no hoi i na alii a pau i hoouna aku ai i ko lakou poe kanaka i ke kalai laau.

O ka hele nui ana o na'lii a me na makaainana i ke kalai laau ala, a me ka halihali ana i na awa ku moku, nolaila, ua hiki mai ka wi nui puni mai Hawaii a Kausi, a ua kapaa kela wi nui ana, he Hilaualele a he Hahapilau, he Laualele, he Pualele, a he ai amau a me ka ai hapuu. A ike o Kamehameha i ka wi o ka aina, kauoha oia i na'lii a me na makaainana, aole e hoopapau nui i ke kua laau ala. Hookapu aku la oia i ka laau ala no ke Aupuni.

Olelo aku oia i na alii a me na makaainana, e mahi nui i ka aina i ka ai. O Kamehameha no kekahi i hana i ka mahiai, aia kana mabinaai mauka o Kailua ma Kona, a ua hana pu no oia me kona mau aialo. I ka pau ana o ke pulu, ua kipuluaia me ka uhi ana i ke amao mau a paa. Ua oleloia boi, o kela mala a Kamehameha i hana ai, ua loibi na makahiki o ka waiho ana me ka ulu-ole o ka nabelehele, o ke kalo no ke lawe mai, ulu no ka oha, a nunui uhukia, ulu mai no ka wae, a pela aku, ulu mai no ka-mau, a ulu mai no ka palili, a pela no ka mamauea a me ka ae. O Kuahewa ka inoa o ua mala nei.

I ka hana ia ana o keia mala kalo nui, papa loa o Kamehameha i na kanaka o kona aialo, aole e kii wale aku i ka ai a me ka huli a na makaainana, a hao wale, a kii wale a lalau wale aku, a ike aku i ka ahui maia, pu-ko, pue unala a hao wale iho, mai hana ko'u poe kanaka pela, o alina auanei ko'u inoa. O ke kuai a me ke noi aku no ka pono ma ke alo, a i aua kela, ua pono no. "Aia no'i o wahi a Pahia." O ke noi no ka mea maikai wahi a ka poe kahiko. O ka aihue, lalau wale, hao wale, pakaha wale, lawe wale, mokio, lawe malu, o ka hewa ia wahi a ka poe kahiko o Hawaii nei.

O Kamehameha no kekahi i hele i ke noi huli no kana mala kalo. Eia kekahi mea kupanaha, a lohe o Kamehameha elua mala kalo nui mauka o Kuapehu na kekahi alii, a o kahi kahu o ua alii nei, ua oi aku kona punahele i kona haku, a manao iho la nae o Kamehameha e noi i ua alii nei nana na mala kalo, a e haawi hapa ia mai ana paha ka huli a e loa oia ana no paha.

Aole i pau.

Kuykendall (1938) wrote the following directly from Kamakau's article just given (translation from Kamakau in italics):

At the islands, as previously remarked, the sandalwood trade was monopolized and controlled by Kamehameha. When he needed a quantity of the wood to pay for some purchase, he simply issued orders to have it cut and transported to the waterside. In 1817 the ship Columbia was purchased, to be paid for in sandalwood to the amount of "twice the full of the vessel." The wood for this purchase was furnished by Kaumualii of Kauai and the chiefs who controlled the Waimea and Waianae districts of Oahu. The historian Kamakau states that when Kamehameha learned of the value of this wood, *he ordered men to go out in the mountains . . . to cut sandalwood, and he paid them in cloth and bark for making native cloth, as well as with food and fish [i.e., he furnished them food and clothing while they were engaged in this work]. Men were also detailed to carry the wood to the landings. . . . The chiefs also were ordered to send out their men to cut sandalwood. Because the chiefs and commoners in large numbers went out cutting and carrying sandalwood, famine was experienced from Hawaii to Kauai. . . . The people were forced to eat herbs and fern trunks, because there was no food to be had. When Kamehameha saw that the country was in the grip of a severe famine, he ordered the chiefs and commoners not to devote all their time to cutting sandalwood, and also proclaimed all sandalwood to be the property of the government. Kamehameha then turned and ordered the chiefs and the people under them to farm, and he himself set them a practical example. The king is said to have placed a kapu on the young and small trees in order to conserve this natural resource.* (1938:88)

Several articles strongly suggest how much the people suffered in this and, ultimately, eliminated the tree from the mountains:

...it is said, the serfs deliberately destroyed the young trees, so they might be relieved from toil so heavy in the following years.

They judged accurately indeed, for so great was the denudation of the forests that in twenty years sandal [wood] ceased to be an important article of export; in twenty more it had practically died out. (Whitney 1899:119)

While most written accounts detail the sandalwood trade of the larger islands, a local writer and historian on Moloka'i, Charles Meyer, relates that sandalwood was harvested here as well. In the *ahupua'a* of Kamiloloa at Maunahui in the Moloka'i mountains not far from the preserve is a pit dug in the ground the same size and shape of a ship's hold (Figure 20). It is said that this was used to measure loads of harvested sandalwood before carrying it to Kaunakakai or Pala'au on the shore to be loaded on waiting schooners:

Sandalwood was an important export for the island of Molokai in the days of Kamehameha the Great (1800–1823). ... The chiefs of those early days built a sandalwood pit (Ka Lua Moku) the size of a Chinese junk (110 feet in length and 40 feet in width) and used this measuring device to determine when they had a shipload of sandalwood. (Meyer 1982:10)



Figure 20. Sandalwood pit, Ka Lua Moku, in the Moloka'i mountains. Photo by Steven Eminger.

Māhele

The Nature Conservancy's Kamakou Preserve is located in the upper sections of two *ahupua'a*, Makakupa'ia and Kawela. Makakupa'ia has been known by other names through the years including "Kupaia," "Makakupaiaiki" (small Makakupaia) and "Makakupaia konohiki" (land agent's Makakupaia).

The *ahupua'a* of Makakupa'ia ("Makakupaiaiki") was awarded to Kaleleiki (Land Commission Award 07779Mo), and the *ahupua'a* of Kawela went to William C. Lunalilo (Land Commission Award 08559BMo). A review of the testimony supporting these awards revealed no mention of the upland areas for either *ahupua'a*.

Firewood

Another of the resources harvested during the historic period in the mountains of Moloka'i, including the area of the present day Kamakou Preserve, was firewood. Lydgate writes of wood being cut in the mountains when he was there as a youth in the summer of 1869:

One of the trips that I remember with special satisfaction was that to the summit of the island, and the head of the Pelekunu valley. At that time Kamehameha the Fifth had a gang of woodcutters and a camp at a high elevation, not far from the summit, from which the wood was hauled to the coast and shipped by schooner to Honolulu. We availed ourselves of their roads and trails so that we could ride most of the way. (Thrum 1920:125)

George Cooke, manager of Moloka'i Ranch beginning in 1908, wrote that wood was harvested from the Moloka'i mountains to be used as firewood in the sugar mills off-island:

When sugar was first produced in these islands, the common fuel used at the mills was firewood. There was a large demand for this. During this period, transportation of firewood from forest to shore was made by ox-carts. On many of the Molokai ridges there are still indications of old oxcart roads which led from the forests to the harbors of Kaunakakai and Palaau. The trading schooners entered these harbors and moored along the inner reefs. There the ox-carts could be driven over the shallow flats and alongside the vessels. (Cooke 1949:61)

Reforestation

The Moloka'i Forest Reserve was established by proclamation in 1912 and encompassed not only State lands, but private lands as well:

PROCLAMATION Of Forest Reserve

on the Island of Molokai, County of Maui, Territory of Hawaii.

Under and by virtue of the authority vested in me by the provisions of Chapter 28 of the Revised Laws of Hawaii, as amended by Act 65 of the Session Laws of 1905, and by Act 4 of the Session Laws of 1907, and of every other power me hereunto enabling, I, Walter F. Frear, Governor of Hawaii, with the approval of a majority of the Board of Commissioners of Agriculture and Forestry, having held the hearing of which notice has been duly given as in said acts provided, do hereby RECOMMEND and APPROVE as a Forest Reserve to be called the "MOLOKAI FOREST RESERVE" those certain pieces of government and privately owned land on the island of Molikai [*sic*], which may be made in July, 1912, by the Government Survey Department of the Territory of Hawaii, which said map is now on file in the said Survey Department marked "Molokai Forest Reserve," and a description accompanying the same, numbered C. S. F. 2235, which said description, now on file in the said Survey Department, is as follows:

[description of survey given] (Maui News 1913:1)

The Moloka'i Ranch was known as the American Sugar Company, or ASCo, at the beginning of the 20th century. They began reforestation at least by 1925, according to a *Maui News* article. Later the Civilian Conservation Corps would continue this work in the 1930s.

Reforestation is a matter that the corporation [ASCo] is giving a great deal of care and attention and the report of the manager for the year of 1925 shows that in the Kualapuu section 656 trees were planted, in Kawela 1,191, in Kokomo 40, in Waikolu 337, in McVeigh cabin section 2,248, in Maunahui 132 and Poholua 346. (Maui News 1926:8)

An inventory of "non-native timber resources" was conducted in 1999 by the Hawaii Forestry and Communities Initiative (HFCI) timber survey crew (Figure 21). The survey area was primarily within the Moloka'i Forest Reserve, including Nature Conservancy lands.

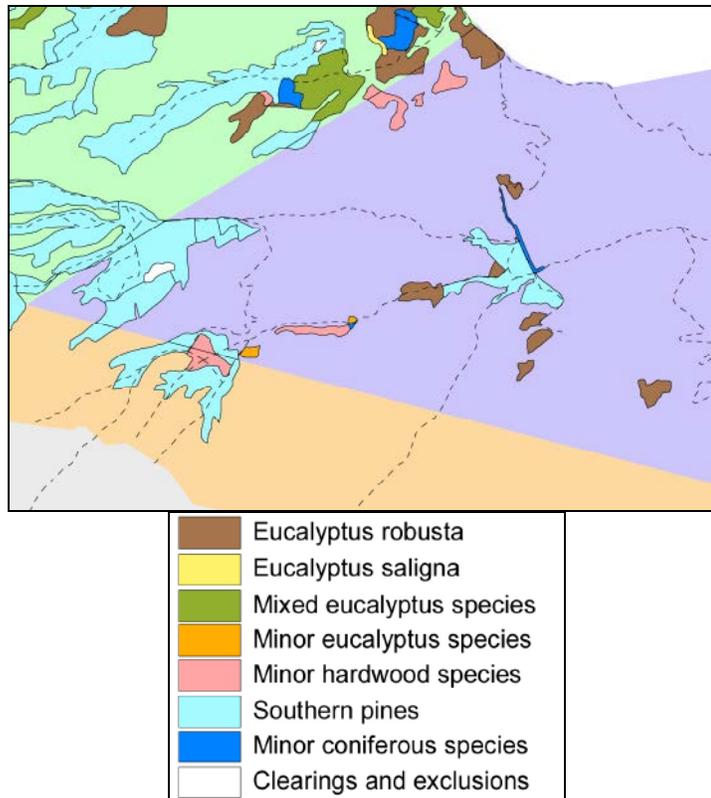


Figure 21. Primary non-native overstory trees within the Moloka'i study area (Constantinides et al. 2000).

Primary survey objectives included producing accurate forest type maps, determining forest composition and structure, and providing timber volume estimates by species for non-native timber stands.

Four organizations manage timber plantations within these areas: DOFAW, which cares for 1,314 acres; Moloka'i Ranch, managing 599 acres; TNC of Hawai'i, which manages 183 acres; and The Department of Hawaiian Home Lands, accountable for 35 acres.

Non-native timber stands in the study area were located primarily on ridge tops having an eastwest orientation, within an elevation range of 1500–3700 feet. Average annual rainfall on these ridge tops ranged from approximately 35–100 inches, with rainfall positively correlated to elevation. A majority of soils in the study area were ash-derived silty clay loams from the Naiwa Series, or basalt-derived silty clays from the Kahanui and Olelo Series (Soil Conservation Service, 1972). These soils were classified as moderately well- to well-drained. The structure of vegetation communities adjacent to timber plantations in the Molokai study area approximated Lowland Mesic Shrublands and Lowland Mesic Forests (Wagner et al., 1990). (Constantinides et al. 2000)

Constantinides et al (2000) provide a table of statistics for cover types on The Nature Conservancy of Hawai'i lands. Figure 22 is a simplified version of the original.

Species & Cover Type Description	Net Acres	Age in Years	Trees per acre	Total net volume (ft ³) by log minimum diameter class			Row Sub- Totals
				4-8"	8-12"	> 12"	
Cupressus macrocarpa							
CM22 Low to moderate volume saw timber	0		259	209	192	33	434
CM44 Moderate to high volume pole and saw timber	3		100	2,067	1,844	3,861	7,772
Sub-Total CM:	3			2,276	2,036	3,894	8,206
Eucalyptus crebra							
EA22 Low to moderate volume saw timber	2		529	649	0	0	649
Sub-Total EA:	2			649	0	0	649
Eucalyptus robusta							
ER22 Low to moderate volume saw timber	9		391	4,595	2,153	1,368	8,116
ER44 Moderate to high volume pole and saw timber	17		311	11,629	18,298	31,702	61,629
ER55 Moderate volume saw timber	10		301	7,009	10,919	25,990	43,918
Sub-Total ER:	36			23,234	31,370	59,059	113,663
Fraxinus uhdei							
FU11 Low volume pole and saw timber	3	44	690	1,920	3,683	3,720	9,323
Sub-Total FU:	3			1,920	3,683	3,720	9,323
Pinus elliottii							
PE33 Moderate volume pole and saw timber	52	38	232	84,260	64,774	4,349	153,383
PE55 Moderate volume saw timber	2		325	3,205	4,487	4,101	11,793
Sub-Total PE:	54			87,464	69,261	8,449	165,175
Mixed pines							
PX22 Low to moderate volume saw timber	34		292	21,786	10,061	0	31,847
PX66 Moderate to high volume saw timber	31	37	256	59,999	113,755	66,739	240,492
Sub-Total PX:	65			81,785	123,816	66,739	272,340
Other non-surveyed types							
FU22 <i>Fraxinus uhdei</i>							17
LC33 <i>Lophostemon confertus</i>							1
XX00 Clearings and exclusions							3
Sub-Total:							21
Total acreage:							184

Figure 22. Descriptive statistics for vegetation in the project area (Constantinides et al. 2000)

Deer

The story of deer on Moloka'i is not easy to establish since different sources report conflicting "facts," but it seems likely that they arrived on Moloka'i in 1867. They were placed under the King's protection and by the turn of the century had become so numerous as to warrant an eradication attempt in the mountains.

Hunting for deer and feral goats and pigs on Meyer lands and in the Forest Reserve on Moloka'i dates back to around 1867 when axis deer (*Axis axis*) were first imported from India as a gift from the Hawaiian Consul in Hong Kong to Kamehameha V. A *Hawaiian Gazette* article of December 17, 1867 notes that Kamehameha V was very interested in obtaining these speckled Indian deer. Dr. William Hillebrand, a doctor and botanist who traveled to Calcutta, arranged for shipment of eight deer from the upper Ganges. Of these, three bucks and four does survived the voyage.

An article from the *Pacific Commercial Advertiser* dated December 21, 1867 reports on the spectacle:

"These really beautiful animals, the spotted Indian deer brought by the Lock Na Garr, which lies at market wharf, have been visited by many of our residents the past week. On Wednesday one of the hinds gave birth to a fine kid, as healthy and frisky as if born in his own mountain home. It is a male, and the officers of the ship have named him

Kamehameha VI. As this ship goes to sea tomorrow, the deer will be transferred to the King's yacht, and taken to Molokai, where we hope they will rapidly increase and stock the whole island." (Meyer 1982:241)

Several other sources describe the arrival of the animals and how they quickly spread:

Wild deer are abundant here despite long killing of them by hired hunters because they were formerly a threat to crops and even to general vegetation. The animals are descended from some spotted Indian deer shipped to Kamehameha V from Hong Kong in 1867. Seven does and a buck were put aboard the British vessel "Loch-Na-Garr" and dispatched to Honolulu, but one doe died, perhaps of seasickness, on the long voyage. The remaining six, with their lordly buck, were sent on the king's yacht "Kamaile" to the royal estate on Molokai. One of the does gave birth, on this inter-island passage, to a fine kid whom the facetious officers of the yacht promptly nicknamed Kamehameha VI. (Clark 1953:256–257)

As the property on Molokai belonged to King Kamehameha V, he placed a kapu (prohibition) on the deer. The deer increased under this protection. They sought the mountain areas as their habitat because they were crowded out by the large herds of cattle that ranged on the low lands. In this highland area in thirty years the deer increased to a great number. The American Sugar Co., Ltd. engaged Theodore Meyer to build a forest fence to keep the cattle from entering the forest. This however did not keep out the deer. (Cooke 1949:68)

Island sportsmen are familiar with the deer hunting on the west end of Molokai. These shy, spotted animals have their origin in Japan. On a tour through the Orient in 1869 the Duke of Edinburgh was presented with a herd of deer by the Mikado. The surplus, six does and one buck--part of a sizeable herd intended for the London zoo--were set free on Molokai by King Kamehameha V. Living under the rigid protection of a strict "kapu" they flourished in the mountain areas just above Kalae. As an indication of their great fertility, just 30 years later the American Sugar Company hired two professional hunters to thin their numbers. Nearly 4000 animals were killed in the forest reserve. (Judd 1936:6)

Sometime around the turn of the 20th century, maybe 1898 or 1900, two professional hunters from the mainland were employed by Moloka'i Ranch (then ASCo) to eradicate the deer from their lands in the mountain. The number of deer reportedly killed ranges from 1,000 to 4,000, 8,000, to as high as 10,000. The following accounts inform on the deer situation on Moloka'i during the historic period:

...in 1898 deer on Molokai became so prolific that hunters from the Mainland were employed to reduce the deer population in order to protect the forests.

...According to George P. Cooke, A.W. Carter was authorized in 1898 by the Directors of the American Sugar Company, Ltd. to hire two professional hunters from California to shoot off the deer. These men were paid forty dollars per month and were allowed to sell the skins. Approximately 10,000 deer were killed in a two-year period.

Henry Pendergast Meyer, youngest son of R.W. Meyer and an excellent marksman, was asked by the two mainland hunters to help rid the forests of the deer. Because the islands of Kauai, Maui and Hawaii were the main sugar plantation areas, deer were not shipped to these islands for fear that they would decimate the sugar crops.

After 1915 the deer migrated to the west end of Molokai to the drier section, reducing the herd in the forest lands. This migration was probably due to the unlimited hunting with hunting dogs in the forest lands. The west end of Molokai was owned by Molokai Ranch, Ltd., and hunting was restricted.” (Meyer 1982:241)

When I [George C. Munro] took over the management of the Molokai ranch in 1899 two hunters with hounds were engaged in killing the deer on the borders of the rain forest. We could not hope to exterminate the deer on Molokai as there were other landowners there who wished to perpetuate them - the deer on Molokai - for a food supply and later for hunting concessions. (Elepaio 1970:14)

AUSTIN'S HAWAIIAN WEEKLY.

**Round about ; ;
Honolulu**

Deer slaying goes on apace on Molokai. Deerslayer Bill are reported as having 8000 deer skins for which they are holding for a higher prices.

(Austin's Hawaiian Weekly 1900:10)

THE INDEPENDENT

TUESDAY, SEPT. 17, 1901.

CORRESPONDENCE.

Slightly Mistaken.

I notice in the sporting columns of the Advertiser of yesterday that reference is made to the game deer on Molokai in regard to which the sporting editor is slightly mistaken. The first deer which came to Hawaii arrived in 1871, and was sent by order of Kamehameha V. to his ranch on Molokai. It is stated by the Advertiser that two men were employed some three years ago by the Republic of Hawaii to destroy the deer and that they slaughtered about 4000 deer in three months. The fact is that the American Sugar Company engaged two hunters to rid its lands of the deer, and they shot less than 1000 deer during one year.

MOLOKAI NIMROD.

(The Independent 1901)

Deerslayer Bill Has Real Record

Maui was amazed at word coming from Molokai early in 1900 of the activities of one "Deerslayer Bill" and his partner. "Deerslayer Bill" was no fictionary hero of dime store novel fame but a real hunter, who with his partner had been employed for the past two years by the American Sugar Company.

For their services in killing off the deer that overran the island they received \$60.00 a month and the skins of all the animals they killed, and by the early months of 1900 they had more than 8000 skins to show for their labors. They had been offered \$1.25 apiece or

\$10,000 for the lot, but were holding out for \$1.50 apiece for the skins. (Maui News 1928:4)

In November 1898, A.W. Carter was authorized by the Directors of ASCO to obtain the services of two professional hunters from California to shoot off the deer. These men were engaged at forty dollars per month with perquisites and were allowed to sell the skins. It is commonly reported that these two men, in the year in which they operated, killed between three thousand, five hundred and four thousand deer. (Cooke 1949:68)

Three bucks and four does (hinds) were in the original band of deer, and these were released on Molokai, where they readily took to the mountains. They increased so rapidly that, in 1898, the American Sugar Co. imported two professional hunters from California to try to reduce their numbers. It is said the California hunters shot twenty-five deer a day and used only the skins, discarding the meat. The hunters' cabin is still standing at Maunahui, although almost falling apart. (Cooke 1964:72)

Two historic photos illustrate the Moloka'i mountains during this time (Figures 23 and 24).

Other Animals

By the end of the 19th century, the Moloka'i forest was being damaged by a host of wildlife including deer, wild cattle, sheep, hogs and goats:

In 1899 it was impossible to form any estimate of the damage the deer had done to the large area of partially destroyed forest on Molokai. Wild cattle, sheep, hogs and goats also swarmed on those lands but after they were cleared out the forest returned in wonderful condition on most of it. (*Elepaio* 1970:14)

The year when European pigs and goats were introduced to Moloka'i could not be determined but apparently they had become abundant and were being hunted in the forest by 1900.

Feral hogs and goats became plentiful around 1900 and thus provided a good source for food. The Meyer family lived on wild game in addition to their cattle and sheep. The Hawaiians and others who lived on the land worked for minor income and it became a necessity to provide their families with meat from the forest and fish from the ocean. (Meyer 1982:242)

Cattle had been introduced to Moloka'i early on and George C. Munro writes about their presence as high up as "the mountain bog:"

I was forester and firewarden on Molokai ranch under the Board of Agriculture and Forestry for most of the time I was manager of those two properties. It was trying work getting the wild cattle out of the mountain bog of the Molokai ranch and the goats and wild sheep out of the Lanai forest gulches. The last wild cow in the Molokai ranch forest fell to my rifle as also did the first deer shot on the western end of the island. (*Elepaio* 1970:14)

Natural History Studies

The Moloka'i mountains have been an important region for scientific studies since the mid-1800s when Dr. Hillebrand visited the forest and collected botanical samples. Such studies continue to the present day. The following passages paint a picture of the collector's view of the area.



Figure 23. Kamoku Pool (Cooke 1949:34).

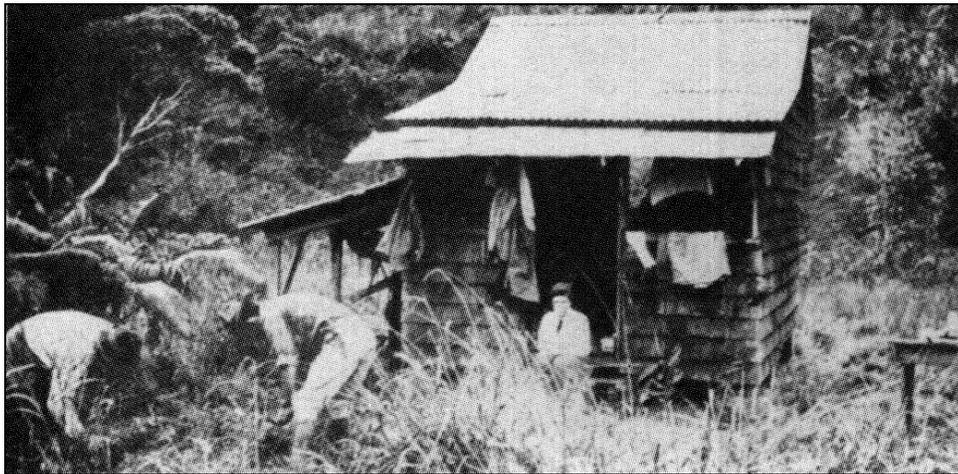


Figure 24. Kamoku Cabin 1915 (Cooke 1949:12).

REMINISCENCES OF AN AMATEUR COLLECTOR

By J.M. Lydgate

The following notes of a tour of the Islands of Molokai, Lanai and West Maui fifty years ago may be of interest from a historical as well as a scientific point of view. I was a boy at Punahou and had developed a boyish enthusiasm for botany and the Hawaiian Flora,

which attracted the attention and interest of Dr. Hillebrand, so that when he was going to spend the summer of 1869 in a collecting tour of these Islands he proposed that I should accompany him as his assistant. (Thrum 1920:120)

Dr. R. C. L. Perkins camped in the forests in 1902 (*Elepaio* 1970:14):

With a view to securing suitable material for the series of Hawaiian bird groups being assembled in the Bishop Museum, the writer spent two months (April 15 to June 15, 1907) collecting in the mountains of Moloka'i. The collecting of the skins and the necessary material required in the museum's work afforded a favorable opportunity for making some detailed field observations on the nests and habits of many of the birds found on this seldom visited island. In addition to a general report of the expedition, the Moloka'i Olomao (*Phaeornis rutha*) is herein described as new and shown to be a species closely allied to *P. lanaiensis* with which it has formerly been united.

The popular and, in a large degree, the scientific interest in the expedition centers about the securing of specimens of the Hoa or Black Mamo (*Drepanorhamphus funereus*) which is one of the rarest of living birds. The search of the forests was made with a view to securing change of station necessary, and, as a result, practically the whole forest area of the island was visited before the coveted locality was finally found. The most extended stay, however, was made at Kamoku camp, and it was at this place that most of the material here reported was obtained.

Kamoku camp is a shelter cabin belonging to the Molokai ranch. It is located on the southwest side of Hanakalilolilo mountain, near the head of Waikolu valley, and it is well suited to the requirements of the collector. It is about 4000 feet elevation and on the edge of the great bog forest at the head of Waikolu and Pelekunu valleys. In this vicinity have been secured most of the specimens of birds of the island, now ino and certain other birds peculiar to Molokai. (Bryan 1908:43)

Another historic photograph of the Kamoku cabin is provided (Figure 25).

The *hoa*, or black *mamo*, was last seen in 1907. The following illustration was drawn from samples taken from Perkins on Moloka'i in 1893 (Figure 26).

A final account was found that describes flora collection in the Moloka'i mountains:

Visit To Molokai

On February 15, 1910, I proceeded, according to instructions, to the island of Molokai, with the view of collecting botanical material as well as to investigate the forage plants on the Molokai Ranch, especially the stock-poisoning plants. I spent ten days at Kamoku camp, collected along the main ridge, in Kawela swamp, Pelekunu Pali and along the ridge to Wailau, where extensive collections were made comprising all species and classes of plants found in that region. (Rock 1911:78)

Clay

In the summer of 1938, Wentworth collected samples and made brief examinations of clay localities on East Moloka'i, West Maui, and Kauai (Wentworth et al. 1940:2):

Clay was collected by one of us (C. K. W.) at two points on the trail west of the locality Pepeopae at the southwest rim of Pelekunu Valley, and was seen at various points in the



Figure 25. The Kamoku cabin (Cooke 1964).



Figure 26. *Hoa*, or Black Mamo (*Drepanis Funerera*), drawn from a Moloka'i specimen (Frohawk 1989:127).

vicinity. From present scanty knowledge of this little-visited country it may be presumed that clay occurs rather generally through the summit swamp area, and that, sporadically, patches of six inches to a foot or more thick may be found. (Wentworth et al. 1940:8)*

Clay seen here was in general a little darker gray than that most seen on Oahu, though at one point a notably clean, very light cream to gray clay called "Molokai select" was found. The thickest clay beds seen were 12" to 18" thick and were found beneath a mat of 1 to 3 feet of fairly clean peat. Beneath the clay layer in many places was a marked limonitic layer two or three inches thick, with buff or grayish weathered rock beneath. The parts of the summit swamp traversed are marked by open areas of grass, sedges and diminutive *ohias* dwarfed from their usual tree-like habit, surrounded by larger trees and ferns at the margins of the flatter areas, where better drainage occurs. The vegetation is more shrubby and less a prostrate mat than on the bog areas of West Maui. (Wentworth et al. 1940:10)

Properties of Molokai, Maui and Kauai Clays

Generically, the clays from other islands are found to be similar to the Koolau clay of Oahu in their behavior in casting and drying. However, some differences are noted, greater than those between production lots of the Koolau clay used to date. The Molokai clay as collected is most similar to the Koolau clay; probably the "Molokai select" is equal to the best Koolau and the "Molokai common," or gray Molokai clay, is somewhat darker in color and forms a somewhat less firm body. (Wentworth et al. 1940:22)

*Presence of clay in this area had been noted by Mr. and Mrs. George P. Cooke, who pointed out localities and assisted in other material ways.

Water Resources

Kamakou is said to be "one of the primary ground water recharge and surface water source areas feeding the State Department of Agriculture's Moloka'i Irrigation System" (TNC 2006:2). A Moloka'i Ranch water development system in both forks of the Kawela gulch consists of a number of features including trails, tunnels, a bridge, a sediment basin, dams, intakes, and pipelines. These features were engineered by Hugh Howell and constructed between 1933 and 1935. Cook describes some details related to this project:

Early in the year 1922, Jorgen Jorgensen, Civil Engineer for the Hawaiian Homes Commission, was engaged by us to survey a pipeline from the east Kawela gulch to Poholua. This line crossed ten gulches, through wooden pipes three inches in diameter.

Trails and roads for this line were made by the contractor Tokunaga, who had been Mr. Conant's well-digger. This line was completed in 1923 and delivered water to Poholua.

In 1931, Hugh Howell, a Civil Engineer, supervised the construction of the million gallon concrete reservoir between Poholua and Mauna Hui. Mr. Howell's services were engaged again in the year 1933, to establish a new water source at the three thousand seven hundred foot elevation in east Kawela gulch, to relocate the Kawela pipeline, and bring it above Kaula Huki to near the edge of Waikolu in order to avoid crossing so many gulches.

The wooden pipeline, placed by Mr. Jorgensen, had served its purpose and had proved unsatisfactory. A new material for pipe, transite, was used as being more permanent and more easily installed.

The following year, 1934, the laying of our transite pipeline was begun and was completed in 1935.

In February, 1938, a severe earthquake was felt here. One of our fifty thousand gallon wooden tanks at Poholua collapsed completely. A landslide in Kawela gulch broke our eight inch transite pipe, but otherwise there was only minor damage from the earthquake. (Cooke 1949:32–35)

A construction date of the early 1930s for the Moloka'i Ranch's Kawela intakes agrees with Stearns and MacDonald's 1947 book, *Geology and Ground Water Resources of the Island of Molokai, Hawaii*:

Between 2,500 feet altitude and the Molokai Ranch intakes, at about 3,600 feet, the tributaries of Kawela Stream lose heavily by seepage. (1947:47)

There is likely a camp for the workers of this project located in the area, although no evidence was found for this. An historic photograph shows the Kawela Intake (Figure 27).

Previous Archaeology

No previous archaeology has been done in the Kamakou Preserve.



Figure 27. The Kawela Intake (Cooke 1949:32).

Kamakou Preserve Site Visit

On Wednesday, January 19, 2011 a site visit to the Kamakou Preserve was conducted by Keala Pono archaeologist Steven Eminger and the director of TNC's Moloka'i programs Edwin Misaki. The purpose of the visit was to inspect the area of TNC's proposed fence line. The team drove to the area in one of the TNC 4WD vehicles, which under the able driving of Misaki, handled the poor road conditions in the preserve without problems. The normally deeply rutted road was even worse than usual at the time of the visit due to the heavy rains received earlier in the month (Figures 28 and 29). The runoff flow of rainwater along the road had been so strong in places that it had even dislodged stones that had been placed to fill especially deep ruts. At one point the team had to stop the vehicle to fill up one such deep rut with displaced stones in order to pass. Once the team had driven as far as practical, a little over an hour was spent walking along a portion of the proposed animal control fence line, a distance of roughly 2 km by trail (Figures 30 and 31). Vegetation was dominated by native species and at several times during the walk the calls of native birds were heard. The weather was clear with mostly sunny skies and only one episode of drizzly rain occurred over a very brief duration. Eminger shot 82 high resolution digital photos and recorded GPS tracks and points with a handheld GPS (Garmin e-Trex Vista) to plot the route and select locations along that route. Satellite reception in the preserve was very good with reported accuracies ranging between 2 and 10 m on the Garmin.



Figure 28. View from the Nature Conservancy vehicle of road conditions in the Kamakou Preserve.



Figure 29. Road conditions in the Kamakou Preserve as observed during the site visit.

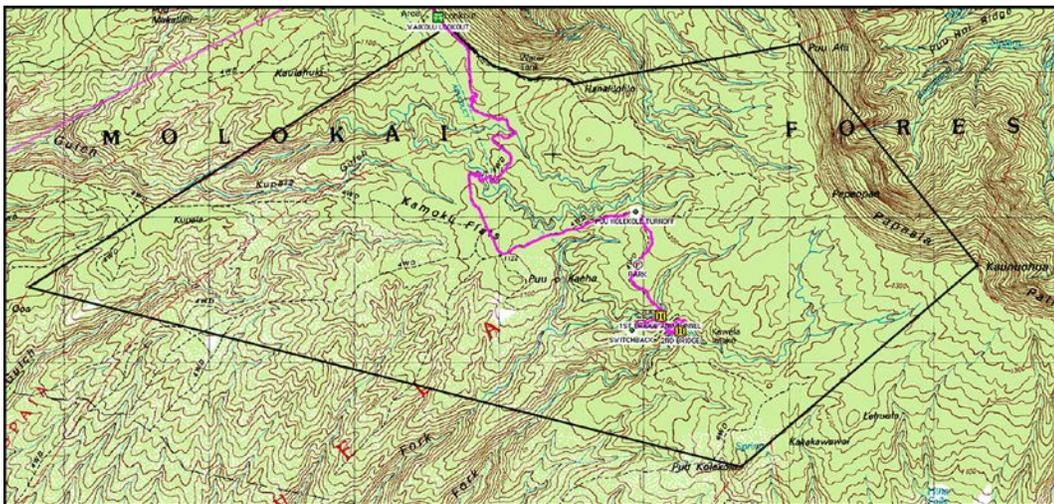


Figure 30. Trail route of January 19, 2011 site visit.

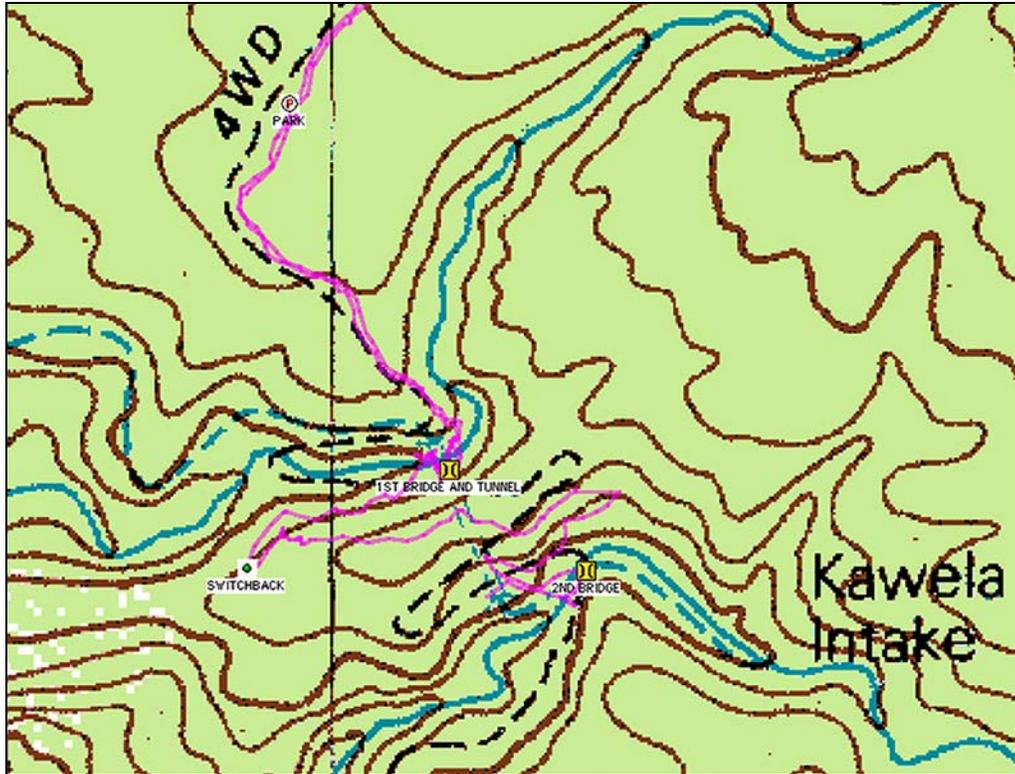


Figure 31. Detail of trail route shown in previous figure.

Road's End

Rather than continue down the road, which was of unknown condition, the team parked the vehicle and walked the remaining portion of the road to the trailhead. The trail was encountered after a short walk, and it began to descend a moderate slope (Figure 32). A small clearing was reached and the trail turned sharply to the right and continued to descend. This first sharp right turn was the beginning of a very well-defined switchback trail that made its way down the slope. The trail was obviously cut into the slope but no built up rock faces were seen to create the trail surface. In several areas the trail was affected by erosion. The width and formality of the trail suggests that it may have been built to accommodate mules and/or horses.

Along the edge of one of the lower switchbacks was a fractured stone (Figure 33). The fracturing is likely the result of trail building activities. In several places on the landward side of the trail were exposed rock faces that had been excavated to accommodate the trail. The fractured stone probably came from one of these excavations.

At the bottom of the switchback trail was a concrete bridge crossing a running stream; this is the west fork of Kawela gulch. The bridge looks to be a poured slab spanning the stream with concrete block walls on both sides serving as railings. The concrete block walls have a veneered cement finish and an angled cap (Figure 34). There were no inscriptions or graffiti in the cement found during this brief observation, but soil and grass has covered the bottom surface, obscuring any markings there if they exist. The bridge is likely part of the “new” water source engineered by Hugh Howell for the Moloka‘i Ranch and constructed between 1933 and 1935 described above in the Historic Period Land Use section.



Figure 32. Misaki after leaving the road and heading down the initial descent of the trail before the first switchback.



Figure 33. Fractured stone probably from building the switchback trail.



Figure 34. First bridge encountered crossing the west fork of Kawela gulch.

A little above the bridge is a tunnel running through the dividing ridge between the east and west forks of the Kawela gulches (Figure 35). The team walked through the tunnel to get to the east Kawela gulch. The low height of the tunnel necessitated walking through it bent over to avoid hitting your head on the low rocks within. For most of the length of the tunnel, shallow water was encountered at the tunnel floor, before hitting dry ground toward the opposite end (Figures 36 and 37).

Emerging into the east fork of the Kawela gulch the team came to another cement bridge of the same style and construction as the previous one (Figure 38). The bridge crosses the East Kawela Stream (Figure 39). The east Kawela gulch water intake is located farther upstream and was not visited.



Figure 35. Misaki entering the hand-dug tunnel between east and west Kawela gulches.

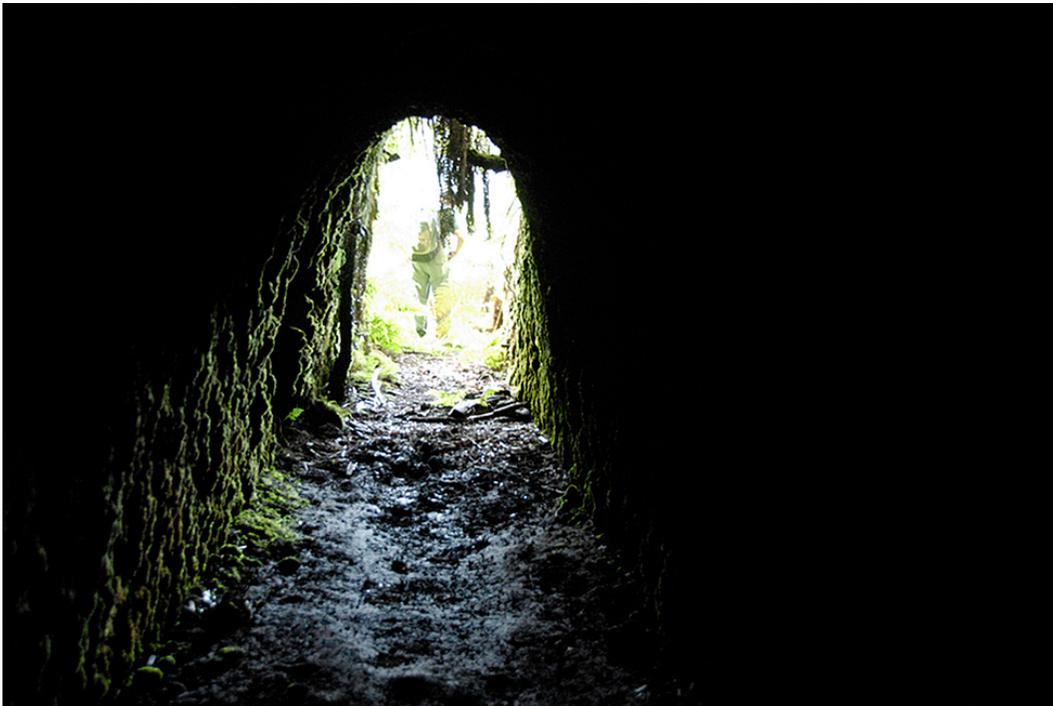


Figure 36. The dry end of the tunnel.



Figure 37. Exiting the tunnel and looking back into the tunnel at the entrance in the distance.



Figure 38. Second bridge encountered. This one crosses the east fork of Kawela gulch.



Figure 39. East Kawela Stream looking down (south) from the cement bridge.

Return Over the Ridge

Instead of returning through the tunnel, the team hiked back over the ridge. This ridge is also traversed by a switchback trail cut into the slope (Figure 40). Initially the trail was fairly open, but soon became increasingly overgrown. Along the top of the ridge was a thick cover of *uluhe* (staghorn fern, *Dicranopteris linearis*) making going slow.

From the top of the ridge the southeastern boundary point of the Kamakou Preserve, Pu'u Kolekole, could easily be seen in the distance (Figure 41). The view to the west included the area from Pala'au to Hale o Lono and up to Maunaloa (Figure 42). The team walked down the ridge top until Misaki located the descending trail down the west side of the ridge and back down to the west Kawela gulch bottom (Figure 43). At the bottom of the trail, the team crossed the cement bridge and ascended the switchback trail on the far side back to the road and waiting vehicle (Figure 44).



Figure 40. Misaki heading up the switchback trail over the ridge between east and west Kawela gulches.



Figure 41. Pu'u Kolekole in the distance and the island of Lana'i beyond.



Figure 42. View from the top of the ridge between east and west Kawela gulches (from “switchback” waypoint on the Figure 31map) looking west.



Figure 43. Misaki descending the trail on the west side of the ridge between east and west Kawela gulches.



Figure 44. Returning over the first bridge crossing the west fork of Kawela gulch before ascending the switchback trail.

Ethnographic Survey

Ethnographic survey was conducted to collect information about TNC landholdings in Kamakou Preserve and the area in general, through interviews with individuals who are knowledgeable about Kamakou, or can provide information about cultural practices such as *mo'olelo*, *mele*, or chants associated with the area. The goal of this study is to identify and understand the importance of any traditional Hawaiian and/or historic cultural resources or traditional cultural practices carried out in Kamakou and to identify any effects of TNC's management of the Preserve.

Cultural Impact Assessment Standards

The structure and content of this cultural impact assessment is in compliance with several guiding documents including: The Hawai'i Environmental Council's Guidelines for Assessing Cultural Impacts (Appendix A), A Bill for Environmental Impact Statements (Appendix B), and Act 50 (Appendix C). This cultural impact assessment meets the standards for all of the above documents, and therefore is in accordance with Chapter 343, HRS, regarding Hawai'i Environmental Impact Statements.

Methods

The ethnographic survey was performed during December 2010 and January 2011. As a multi-phase process, the study consisted of conducting the oral history interviews, transcribing the digitally recorded interviews, analyzing the oral history data, and preparing of the report. Personnel included Windy McElroy, PhD, who served as the principal investigator and Mina Elison, MA, ethnographer and transcriptionist.

Knowledgeable consultants were selected because they met one or more of the following criteria: 1) was referred by Keala Pono Archaeological Consulting or TNC; 2) had/has ties to the project area or vicinity; 3) is a known Hawaiian cultural resource person; 4) is a known Hawaiian traditional practitioner; or 5) was referred by other cultural resource people. Consultants were selected because they are knowledgeable about the project area. All of the informants agreed that many of the *kūpuna* who knew Kamakou have passed away, thus resulting in the increased reliance on literature and other sources of information. A list of organizations and individuals were contacted and three interviewees were identified and consulted (Table 2).

Interviews were taped using a digital MP3 recorder. During the interviews, consultants were provided with the Agreement to Participate (Appendix D) and Consent Form (Appendix E) and briefed on the purpose of the ethno-historical study. Research categories were addressed in the form of open questions which allowed the consultant to answer in the manner that he/she was most comfortable. Follow-up questions were asked based on the consultant's responses or to clarify what was said.

Transcribing was completed by listening to the recordings and typing what was said. A copy of the edited transcript was sent to each consultant for review, along with the Transcript Release Form (Appendix F) and a self-addressed stamped envelope for returning edited materials. The Transcript Release Form provided space for clarifications, corrections, additions, or deletions to the transcript, as well as an opportunity to address any objections to the release of the document. When the forms were returned, transcripts were corrected to reflect any changes made by the consultant.

The ethnographic analysis process consisted of examining each transcript and organizing information into research themes, or categories. Broadly, these are organized into time periods,

Table 2. List of Organizations and Individuals Contacted for Oral History Interviews

Name of Contact	Contact Method	Referred By	Result of Contact	Referred To
The Nature Conservancy (Moloka'i)	telephone/email	Keala Pono & TNC	referrals to others	Penny Martin, Billy Akutagawa, Vanda Hanakahi, Opu'ulani Albino
Billy Akutagawa	telephone	TNC	oral history interview	Joey Joao, Earl Pawn, Dolphin Pawn, Dennis Kamakana, Wayne Meyer, Parker English, Severino "Bull" Dela Cruz
Penny Martin	telephone/email	TNC	oral history interview	Analu Arakaki, Vanda Hanakahi, Joao 'ohana, Opu'ulani Albino
Joey Joao	telephone	Billy Akutagawa, Penny Martin	oral history interview	
Cheyenne Joao	visit	Penny Martin	referrals to others	
Noe Keli'ikipi	unable to contact	Keala Pono	N/A	
Dennis Kamakana	visit	Billy Akutagawa	claimed no historical knowledge	
Wayne Meyer	visit	Billy Akutagawa	claimed no historical knowledge	
Kauila Reyes	visit	Keala Pono	claimed no historical knowledge	

consisting of pre-Contact Kamakou, the preserve in the historic era, and Kamakou in the present. Within these time periods, information is grouped into themes, such as archaeological sites, gathering practices, and change over time. Full transcripts are presented in Appendices G–I.

Consultant Background

The following section provides background information on each consultant. They were asked for their full name, where they were born and raised, who their 'ohana is, and what their connection is to the project lands.

William “Billy” Akutagawa

Mr. William Akutagawa was interviewed by Mina Elison at Na Pu‘uwai Native Hawaiian Health Care Center in Kalama‘ula on the island of Moloka‘i on Wednesday, December 22, 2010 (Figure 45). Born in 1948, Akutagawa was raised in Kamalō and shared that his great-grandfather was from Wailau Valley and his great-grandmother was originally from ‘Ualapu‘e on Molokai’s east end. Akutagawa also recognized his Japanese and German ancestry.

After graduating from Moloka‘i High School, Akutagawa served in the military, worked in Honolulu and also furthered his education and studied at the college level. Returning from military service in the 1970s, Akutagawa became very familiar with the Kamakou area while hunting pig, goat, deer and various game birds as a young adult. Along with a group of hunting friends, he spent a lot of time learning the various trails and landscapes of Kamakou. An avid hunter, Akutagawa, was also interested in gaining knowledge of various gathering sites of *maile*, *hō‘i‘o*, *kōko‘olau*, *māmaki*, various fruits and plants, as well as the location of springs and places once occupied by people in the past.

Penny Rawlins Martin

Mrs. Penny Rawlins Martin was interviewed at her homestead in Kalama‘ula on Thursday, December 23rd, 2010 (Figure 46). Tracing her ‘*ohana*’s lineage to Molokai’s famed Kaiakea, Martin was born in 1952 in Ho‘olehua and attended Kaunakakai Elementary School, Kamehameha Schools, and took courses at Hastings College in Nebraska.

Sailing on the maiden journey of voyaging canoe Hōkūle‘a in 1976, Martin described this as a life-altering “turning point” where she became deeply aware of her *kuleana* to take care for this very special place. Since then, she has dedicated herself to promoting responsible stewardship of the ‘*āina* and *kai* as a means for people to better understand, appreciate and learn from the Hawaiian culture. Martin currently sits on TNC’s Moloka‘i Advisory Council and, in 2010, was the recipient of The Nature Conservancy’s Kāko‘o ‘*Āina* Award, recognizing her significant and long-standing support for conservation in Hawai‘i.

Joseph “Joey” Joao, III

Joey Joao was interviewed in Kaunakakai on Wednesday, January 26, 2011 (Figure 47). Born in Ho‘olehua, Joao is a fifth generation rancher/hunter, with his family working for Moloka‘i Ranch since the early 1900s. Joao’s great grandfather, Manuel Joao was brought to Hawai‘i by the Cooke family as a *paniolo*. Joao recalled exploring the Kamakou area with his ‘*ohana* since “small-kid time,” gathering plums and walking through the dark intake tunnel. Shortly after high school, he picked up the family trade, working for Moloka‘i Ranch for about 20 years, where he eventually became the Manager of Hunts and Security.

Since 2001 Joao has operated his own hunting business, Hawaiian Kine Hunting, through which he takes people hunting in various areas on Moloka‘i. It is during such trips that he is able to share some of the responsible hunting practices which were passed down to him.

Topical Breakouts of Oral History Interviews

This section organizes the oral history data by era and topic, including pre-Contact Kamakou, post-Contact Kamakou, and the Preserve in the present. Themes within the pre-Contact era consist of traditional Hawaiian sites and traditional practices and beliefs. In the post-Contact era, impacts of the sandalwood trade, cattle ranching and historic sites and features are discussed. Topics of interest in the present include Kamakou as a special and spiritual place, Kamakou as an educational resource, changes through time, trails, hunting and gathering practices, and TNC’s management practices in the Kamakou Preserve.



Figure 45. Billy Akutagawa (right), with Keala Pono ethnographer Mina Alison (left).



Figure 46. Penny Martin.



Figure 47. Joey Joao.

The Past: Pre-Contact Kamakou

This section includes *mana‘o* on traditional Hawaiian use of Kamakou (pre-1778).

Traditional Hawaiian Sites

....You don't see too much [archaeological sites], yeah, because it's mostly overgrown. We may have stumbled across, but we were more hunting pig, yeah. [Billy Akutagawa]

Couldn't really see. There may have been something but we couldn't really see. I'm trying to think where else we went cause on the lower portions of the Maunahui Road on this side, did I see anything. If I did see anything, probably would've been out of the area, outside of the area. [Billy Akutagawa]

Hard to really see stuffs, um you know going up towards the Kawela Intake, you know we seen some—you get some formation of rocks but hard for tell if it's anything 'cause everything is just so overgrown. [Joey Joao]

We probably never go in [to caves], but, pigs go in, yeah. We let the dogs get 'em out. Probably only short, only short kind. I don't know if any habitation was going on inside of them. Get the dogs to get out the pig, yeah. [Billy Akutagawa]

You know the boardwalk, when you get to the lookout Pelekunu the trail continues on the ridge into Pelekunu, right to where Joyce Kainoa lives—those are ancient trails, plenty ancient trails. Of course, the other way, Makakupa'ia, this way, Makakupa'ia Road, used to be a trail that went up and all this, used be all dryland forest... [Penny Martin]

And then also, you don't have to know [where] the historical sites are, you can just go and make that relationship, like, "oh, there's *maile* growing here, there's a good stand of *maile* here, so, I bet you this is where they came to gather," you know or, "there's a lot of *māmaki* here, this is where they come for their tea." So you know, you can make that relationship. [Penny Martin]

Only the '*iliahi* [sandalwood pit], but I'm sure there's—you know, like I said, I don't think people lived up there, so much as gathered, the living, made more sense to come down. There might have been *ahu* up there, I'm sure when you go up there, you give thanks, I still do always say a little *pule* before I gather and always a little *pule* after, you know. [Penny Martin]

No, because they didn't live up there, they didn't, but to me, the archaeological evidence up there, to know that we did cultural practice is the old '*ōhia* trees, the '*apapane*, the '*amakihī*, the '*i'iwi*, that's all—those are the archaeological evidence. If you know they had those birds up there, you know that the bird people went up there, you know, you know if you get *māmaki* up there, you know the *kāhuna lā'au lapa'au* went up there, you know the *kumu hula* went up there to get all the '*ie'ie*, to get all the *palapalai*, so to me, that's your evidence of cultural practice, the evidence of the plants themselves. I mean, how much more evidence do you need [*laughs*]. [Penny Martin]

No, and you know, from what I understand, well—caves, so...but you know, the thing is—the thing with burial up there, they're going to bury them so you cannot find 'em. So, if you found them, it would kind of defeat the purpose. So just because we haven't found them doesn't mean no more—it just means they did it well, to me, you know, you kind of have to think different. To me, the lack of evidence means they did it well and the fact that we cannot see their footprint means that they were good stewards. [Penny Martin]

But, I'm sure there's probably hidden bones up there, yeah. But like I said, most of the people lived below the forest. [Penny Martin]

Part of the spring system was more on the lower side towards the—might be out of—cause this is the area that you're looking at [*points to boundaries of Preserve on map*].... It's probably outside of the area, it's probably more by the Maunahui Road toward Pu'ukaua. [Billy Akutagawa]

At Kamakou, basically, shucks, the only thing we seen is if you come down, if you come down towards Makakupaia, come down to what's Kawela, then you have more stuffs, yeah, 'cause that's what I was taught by different people, you know, 'cause you got to respect the area, 'cause there's a lot of Hawaiian stuff in there—they call 'em just Hawaiian stuff. I always was curious and I used to ask, "what kine stuff, Uncle?" and he would tell me, "you don't need know, boy, it's our generation, when you guys need know that so you just, take care—*mālama*—the place." [Joey Joao]

Traditional Practices and Beliefs

So, if you listen to the old chants and stuff, they talk a lot about plants, the '*ie'ie*, the *manono*, the '*ōlapa*, just like when you dance *hula*, they compare the hula dancer to '*ōlapa*. You know why they do that? When you go up to the forest, just the slightest, slightest breeze will make the '*ōlapa* shimmer and it's beautiful, it's graceful, so when you dance *hula* and you've achieved a certain status of dancing, they say you '*ōlapa* because you've reached that high level of grace, yeah, and that's where it comes from, the '*ōlapa*, yeah. So, if no more '*ōlapa* anymore, how is anybody to understand that if

they've never—if you cannot go up there and experience that, how are you supposed to understand that, you know what I'm saying? [Penny Martin]

Yeah, and then when you honor Laka—I'm just using hula as an example—when you honor Laka, what do you take? You take *palapalai*, you take 'ie'ie and it's very difficult to practice our culture without those elements because we're so intertwined with nature, yeah. Like all of our reference in our *oli* and stuff are back to nature. [Penny Martin]

That whole relationship between land and sea, between ocean and *kai*—I mean *kai* and the land, the 'āina. The forest holds all of that—the 'ie'ie, the basket weaving, the, the *kūpuna* that used to go up there to get the birds to make all the cloaks, the medicines, the *laukahi* that came from up there. [Penny Martin]

But you know, if you listen to all the old chants and the—I was going to say especially in *hula*—but, we're oral history, yeah, so all the chants and everything, they all make reference to things in nature, and a lot of those things are found up in that forest, so, to me, like, that forest is like a living culture for us and a way for us to get connected. Just like when you go ocean you can get connected to the *hīhīmanu*, you know, the *puhi*, and all those 'ōlelo no 'eau and stuff, you get visual and you can understand. And the 'ēkaha in the ocean and then you go up—here's the 'ēkaha, wāwae 'iole—there's the wāwae 'iole, you know, how can you, you know, our whole culture, to me, balances on us being good stewards. [Penny Martin]

So this Makakupa'ia Road is an ancient trail actually and this went all through dryland forest and the dry land forest held things like *kōko'olau*, which is good medicine and 'a'ali'i too, which is good medicine. And the Hawaiian proverbs, again, the 'ōlelo no 'eau refers to the 'a'ali'i you know, “stand steadfast in the wind like the 'a'ali'i”... [Penny Martin]

The Past: Post-Contact Kamakou

This section includes *mana'o* on Kamakou in the historic period (post-1778).

Sandalwood

... The sandalwood pit—that whole lesson of how the *maka'āinana* were forced to go up and live in the forest in the 1800s, when sandalwood was a big industry. Hawaiians didn't live up in the forests, they lived down, they smart, they lived down by the ocean where it was warm, and they had accessibility to food, and you know, they could grow their crops. Up in the forests cold, muddy and it was so far away, you know, unpredictable, so, they didn't live up there, but during the sandalwood time they were forced to live up there and gather sandalwood and they hated it, so they started pulling out all the *keiki*, so that their children wouldn't have to experience that. It almost caused the complete extinction of sandalwood in Hawai'i, yeah, so that's a sad thing. [Penny Martin]

So, that, to me, is a good reminder of very—it's a sad time of Hawai'i's history, but it's a good reminder, to us, you know, how to care for the forests. So when that was happening, when they were all up there in the forests, nurturing—not nurturing—gathering the sandalwood, there was nobody down here to take care of and maintain the *lo'i*, the fishpond, so all of that kind of went into ruin and the whole social structure of Hawai'i changed, so, you know, that is a *mo'olelo* that I share all of the time because it's a lesson. [Penny Martin]

Cattle Ranching

But the State cabin was there [Pu‘u Kolekole Cabin] and from before, the cowboys used to go up there and used to try to drive that cattle out of there, bring them back down. But sometimes they spend one week up there, they kill the cattle. One of the cowboys told me, we kill the cattle, we strip the hide and we use that hide—while we get time up there—to make the kaula‘ili, you know the lasso, you know the skin rope. You know, they get plenty of time up there and do that. [Billy Akutagawa]

Up Pu‘u Kolekole Cabin, I don’t think they had cows way up there unless—I know they had wild cattle, had wild cattle that ran off from Kakalahale way down on this side, yeah, we used to run cattle all along the bottom, all behind here all had cattle but it stopped to the forest line, that’s why we have that big long fence going across, that goes from Kaunakakai Gulch all the way towards Kawela, one big, long fence, I know ‘cause we fix ‘em when I was small kid and we had to walk that fricken’ thing and, um, we had cattle that escaped that went into the forest, but it was escaped cattle, they wasn’t raising ‘em inside there, yeah and so maybe that’s why, ‘cause we used to shoot some way inside the forest but it was just wild cows that we used to shoot. After shooting one or two, they you—frick’ this too big for carry and so you no shoot ‘em after that. [Joey Joao]

I don’t know, ‘cause those [wild cattle] up there [in Kamakou] were big, ‘cause we tried to round them up. I remember being in, I think it was just out of high school I was working with them and we went up to try get ‘em...they came running down, I look, frick’ that I went up the tree ‘cause I never had a horse—they had the horses and then they had us young kids on foot chasing ‘em around, we was all up at Makakupaia and we brought ‘em all the way down up, on top the thick forest and brought ‘em down to Makakupaia and we lost ‘em, they turned right around, they never like come out, they turned right around and went right back into the forest, went back up. So after that they started, you go up there, you see ‘em, you shoot ‘em, just shoot ‘em ‘cause they know they can hide in the forest, yeah. And unreal they can survive in the forest, you get food, but not the kind food good for them, man, grazing grasses, more plants and trees, yeah. But they survived inside there. [Joey Joao]

They had their own water tank—redwood water tank, small version of a larger one which traps on it and then they collect water inside for the guys use. [Billy Akutagawa]

...we used to go up there and we used to check ‘em out ‘cause we used to find all kinds of goodies up there—I mean, just the normal stuff, they—the local guys, when they make the fence, they lazy like anybody else. You look all the redwood poles all stacked underneath the trees that they when hide ‘em instead of use ‘em—find all that with all the extra wire that they all had—a lot of time it was straight wire and just look at all the goodies that we find up there. [Joey Joao]

Historic Sites and Features

There’s another thing we found out, you know where the Waikolu Lookout is, you go up the Hanalilolilo Road, you come back down we go to the Pu‘u Ali‘i area, and then when we’re crossing this area, cause we’re hunting pig right along here, when you cross in here, one of my friends told me, “Can you see that, there’s a pipe that runs along here, it’s an unusual pipe, it’s made of wood.”...Yeah. I don’t know what—I think he told me a long time ago they didn’t have pipe, so they get lats of—strips of redwood, they put ‘em together and they wrap them with wire and then lock it and tie it. So a couple of areas along there, I was looking and seen the pipe, was, some was exposed, some areas but, you know the thing was pretty old already. I told them, “When they stop using these?”

and he said he don't know. He said his grandfather told him....I saw it, I saw it, because it was exposed already. And I think his grandfather had told him, "Ah yeah, they used to use that water as one intake to run back," and then one of them where the Waikolu Lookout is, right along the side there's a trail that runs down into Waikolu Valley and then I went through the tunnel one time and the guy told me, "Ok, this is where the trail begins from here." What did the guys used to do with this trail? They would walk up and down the trail and then walk down the trail and go through Waikolu to get to Kalaupapa. [Billy Akutagawa]

Oh yeah, get plenty of water tanks up inside there, we see tanks. I don't know how to start if you like go back, but the bridges was all made from my great grandfather them, probably, those that they're finding across there. But there's a lot, you know, 1900 stuffs inside there, yeah, that, that, 'cause, you still find the water flumes that they used to make out of the redwood instead of the asbestos that we used to have to deal with. But there are water flumes that you find inside there. So you're walking around, guys really don't know—they stop on, "What is this redwood over here?" but if you really look at 'em, it's like—like one pipe, it's a flume, yeah. They used to cut down into the ground a little bit and then they set down the pipe inside and then run the waters down, but that's all natural stuff, yeah. [Joey Joao]

Old-timers, old-timers said. A lot of the old-timers would tell me that there were a lot of Chinese working up there. They were the small guys, hard workers and they use them to do the tunnel, the tunnel to the Kawela Intake, yeah, and they did the tunneling and they did the tunneling for the Pu'u Kaua area, one intake. [Billy Akutagawa]

You know the only thing I find is, you know, going into the tunnel, coming out towards, coming out down by, um, Kalaupapa side, get the old, old, um, the work man houses and stuff we used to find inside there. [Joey Joao]

One guy was interesting, he would go to the site where these guys used to do it—the Chinese, to go look for bottles. He showed me a bottle one time. The bottle was a glass bottle, where the wire tie on top and the stopper, either was cork and fell away, but they used to cap that as their water when they're working, for water to drink. [Billy Akutagawa]

And part of the forest, when you first went up there, used to be thick and was planted all in rows. Over time, the forestry workers would cut the lower branches because there was always the danger of fire, yeah. So they trim up to a certain height and try to keep it trim like that, so when the fire, they wouldn't have these things called "burn outs." When that thing hit the Norfolk pine, some of the pine trees, the fire go up the middle and go all the way up to the top and then blow up at the top 'cause all of the inside branches are dry, only the outside branches is wet, all green. So the thing burn from the inside, go...So when they had forest fires, always had that kind of stuff that happened. So, I think their idea was to, one wasn't only trimming, but they need to clear cut the area because it's too thick. You plant the thing so many rows apart and the thing start to intertwine like this, so they get really thick, yeah. [Billy Akutagawa]

Yeah, 'cause inside Kamakou, the Cooke's had their hunting houses inside there, um, right, you, right before you come out to the Deer Pen, I forget the name of that gulch where the road come across, right after when you come down this side there was two houses, there was two houses inside there that they used to use it when they used to go hunt. [Joey Joao]

They actually built that because I think Kamehameha V, the last one, that's where he was raising some—the deers up there, 'cause it was a gift, yeah, and then he brought a lot of them to Molokai, so that's how it started, so everybody used to grumble to me, "Oh, you know, we get the right to hunt the deer," I said, "You go read the history, did Kamehameha ever, ever—get this one on tape too—did he ever lift the *kapu* on the deer." The deer was *kapu*, 'cause that was his pets, you know. [Joey Joao]

The Present

This section presents *mana'o* on current uses of the preserve.

Kamakou as a Special and Spiritual Place

...When you're growing up, you would always hear about the forest, yeah, and we grew up no more car, yeah, us, 'cause my mom was single mom, five kids, we were poor, so she walked to work and stuff, so, if we had the good fortune for someone to want to take us five kids up with them, that's like a big treat and the forest, it's just like going to Disneyland for us 'cause it's so unreachable, yeah. So, it was always a special place, we knew that. [Penny Martin]

We always ventured up the Ranch and then go up the forest with my Uncle Harry, you know and that was good fun, 'cause...when we was little, we were raised on the west side of the island, yeah, always did everything down there 'cause the family was always there so when they was going up to the forest towards Kamakou side towards the lookout, was one treat for us... [Joey Joao]

When I go up there, I feel like that's where all the *kūpuna* are. You know, all of those old *lehua* trees, those are the *kūpuna*, those are the first Hawaiians here, yeah. [Penny Martin]

I know one boy, we went up there, we went to Waikolu and the clouds were whipping into the lookout area—you been up there haven't you, and he went, "Ho, is this heaven?" I was like, "Oh, for some people, yeah." [Penny Martin]

Gathering Practices

Had the big plums up there in the summer. So it was always a gathering place for us and a place that we appreciated so we would go up there a lot. [Penny Martin]

That, and just at the start of the Pēpē'ōpae, right there, what we used to pick there? I'm trying to think. Was it the plum or mountain apple? Might have been mountain apple we used to pick it, just from there before we start the trail. [Billy Akutagawa]

So it was good fun, it was a good fun thing, just the kids going up and having fun and that's what I remember about that place—and then going up, picking up watercress, picking up the fern for eat, picking up the plums, the pears, the little apples [crab apples]. [Joey Joao]

So yeah, I don't feel bad going up there to gather, because I know when I go gather, I'm going to gather with *kuleana*. [Penny Martin]

All along the lower portions, might be out of the Kamakou area when you get to the lower portions, when the thing start to open up, you going see a lot of—I think still get—a lot of, what’s that other...*kōko ‘olau*, *kōko ‘olau*, Hawaiian tea, yeah. [Billy Akutagawa]

Oh yeah, yeah, there’s a lot of stuffs that you can use, you know, get the teas, get the...*māmaki* tea up there, yeah, that everybody likes drinking—I used to drink that too, but more easy go store buy ‘em in the bag. [Joey Joao]

But, get *kōko ‘olau* or something, on the lower part of Makakupaia, by Kamalo, by Kamiloloa up by my house, I used to go up there for pick up that, but, um, I think most of the gathering today only the, the people, just for you know, some of the people still gather things for medicine, but not too much know how to do that already, I think. Most everybody they just go up there for gather, go look *maile lei*, and, you know *uhaloa* or something, but, you talk to the Hawaiians, they all say, “Aw, nah, I go up there gather my—“ yeah, a lot of them don’t know even how to do ‘em I think today. [Joey Joao]

Hō ‘i ‘o. One was *hō ‘i ‘o*, think it was the *hō ‘i ‘o*, there was a site but it was on the Pu‘u Kaua Road. I was shown that site so we could go pick over there. The other one was on the trail going up, you know the Pēpē‘ōpae bog, you see this thing come up, a flat grass. I don’t know, have you ever picked that, peeled it and ate the inside?...Used to eat that. One of my friends, when we would go hunting would say, “oh, we going to eat this.” He had a Hawaiian name for it. It grows in clumps and you break it and you peel the thing and the inside part you eat. [Billy Akutagawa]

Most of them came from the forest and I tried to use invasive species like all the pine and all the pine cones and I have very, very little *lehua* here and there for ambiance [laughs], but not too much. And so I have—so all the pine I have came from there. I didn’t feel guilty about that because it’s invasive, so that was my filler, and then macadamia nut leaves, *kamani*, *milo*. [Penny Martin, describing materials gathered at Kamakou to make a Christmas tree *lei*]

...You see where the Kamakou [Kamoku] Flats and the Hanalilolilo Trail, on this road coming down here, there’s a cutoff point that you walk up a small gully and the maile is inside one of those small little gullies. See where the road goes like this? What it’s doing is going down, turn around, swing back on top, glides back up. So in the down portion, get one area you walk up to pick up the *maile*. [Billy Akutagawa]

And we used to pick ‘*ōpae*, ‘*ōpae*, I don’t know if they get today but we used to get ‘*ōpae*. You look inside the water, look black, but when you cook ‘em, come red, yeah, that mountain ‘*ōpae*, used to have plenty mountain ‘*ōpae* we used to catch, yeah. This side never had *hīhīwai* but we had the mountain ‘*ōpae*. [Joey Joao]

Trails

The most frequent trail was the Hanalilolilo Trail, we go from the lookout site all the way up to the Pēpē‘ōpae bog and then we come back the opposite way down the—they call it a boardwalk, but they didn’t have a boardwalk when we were going—we would come back down that side, meet in this area. Sometimes we take our Jeeps on the Jeep road, past the Deer Pen, go all the way up and then where the Pēpē‘ōpae bog is, we come down so far and then we hike—there’s a trail that hike down to the intake. You see where this road ends, there’s the Tunnel Road, we hike to get back up to the Pu‘u Kolekole area and then sometimes we come back down this road, the Kawela Road—it’s going into private property, we hunt that. We hunt in the Kamakou [Kamoku] Flats, we go on the Makakupa‘ia Road, up to Deer Pen then we walk back down the ‘Ōnini Road and then

sometimes we go back down to the Center Ridge Road. Ok, sometimes we hunt in the Makakupa'ia area, we come back down inside this area and when we hunt, we come back down and we take one of the trails that comes back, actually it enters into Molokai Ranch Lands. [Billy Akutagawa]

Ok, some of the other ones, we go from you know, the Kaulahuki area, it's a rough road coming down, so we probably never go down as much as we wanted to, but we go back up to the Waikolu lookout, we go back on the road here and then we get onto the Maunahui Road and we turn off into the Pu'u Kaua Road, go along the ridgeline get down to the back end of Meyer's and we hunt these areas up here for pig, pig up this area. Let's see, yeah, that's all the kind. And sometimes we go way up the Pēpē'ōpae bog, we go up to Pelekunu—where the overlook is and sometimes we walk back along the ridge inside there and it's all overgrown areas get plenty of moss inside there; walk back and find our way back where the boardwalk is and get the trail back to the main road. [Billy Akutagawa]

The only trails that I know is not on this map is—between Hanalilolilo and the road that ends by the Kawela Intake, in-between that, we hunt pig in this area. So where the ridge goes up by Pēpē'ōpae and come back down, and we come back to the road inside here. [Billy Akutagawa]

For me, anybody can go [to Pu'u Kolekole Cabin]. All they have to do is—the entry point is from Kawela Plantation, you take the Number 3, you take that old road, go all the way up to the top, get one gate. Just climb over the gate and you can follow the road all the way up to where the cabin is. Nobody maintains those roads, the roads are gone already. I mean, it takes a lot of bulldozer work to make the road better. [Billy Akutagawa]

Hunting

I have friends from the middle part of Moloka'i, we all got together and we each had dogs and we each took our own vehicles—sometimes we buddy up and then we started to hunt all those areas of Kamakou. [Billy Akutagawa]

They get, I think in the lower portion, I think they hunt the pheasant. You get the erckel francolins, you get the francolins, Black francolins. I don't know about turkey, I don't think I've ever seen turkey down there. [Billy Akutagawa]

Well and they [Hawaiians] weren't going traipsing along that forest along the mountains in the mud in the cold, they had domestic pigs, you raise them right here by the *hale* and you kill 'em and eat 'em. You don't need go walk around and chase 'em all over the mountain, you know. So, there's a lot of confusion, I think between what is cultural and what is traditional, yeah and so when you talk to local people and you ask them for cultural knowledge, a lot of what their knowledge is to me is Moloka'i traditions, but not necessarily cultural traditions, yeah. [Penny Martin]

....When we take the dogs, when we take the dog, we generally let the dog go and they going run and they going bark and wherever they bark going be sometimes on the trail and sometimes off the trail and so what we got to do is get into the area that they're barking to go down and get the pig, so, it takes us off the trail. [Billy Akutagawa]

It was Ranch lands up to a point and then the State usually controlling the hunting and stuff inside there, so it was basically the State, but, we come from Molokai, so, you hunt whenever you like and whatever you catch. I run a business now and I watch who goes in

and out, but, it was the same thing when I was growing up, we hunted whenever we like, I mean, poaching was—we never used that word for it, it was just gathering. [Joey Joao]

Kamakou as an Educational Resource

So, I think the Kamakou Preserve and being involved with The Nature Conservancy is a great opportunity to educate. And, you know, I don't only go up there to gather too, I take the kids up to make the classroom alive for them—like, it's one thing to stand up in the classroom and show them a PowerPoint, "These are native plants, this is a *lehua*, this is a happy face spider." But when we go up there and they turn a leaf over and they see a real happy face spider, it's the "wow" factor I give them, yeah. [Penny Martin]

Oh, and the other thing about Kamakou too, is, that, it is where our watershed is located and so when we care for Kamakou, again, we're caring for our reef, yeah, so there's that whole *mauka-makai* connection, yeah. But there is so many lessons to be learned and so many lessons to be taught and so much culture to be practiced up there. [Penny Martin]

So, when I take the kids up there, I just, you know my hope is that they'll be in awe of it and they'll be inspired to be good stewards. [Penny Martin]

Changes Over Time

Um, couple instances where the thing changed was that, used to have more rain up there, always wet... Wet, wet, used to be really wet before. Over time, most of the place kind of like dried out. I don't know if it's changing weather patterns or what. [Billy Akutagawa]

To me, yeah, it's more thick, yeah, even though they say that they getting rid of some of the invasive stuff, it's still—it's thick, I mean, before had more openings, before when we used to hunt up there, the Flats was more flat, right by the Deer Pen, used to be, I mean, right behind the Deer Pen, that's all marsh land before, I remember small kid walking over there and we walking in and when I hunt behind, by Halawa side, we walk in the water up to your shin, you know, some places you step, you go down deep, but no more. I don't know if there's still water running out or if we're taking too much water, but, it was all marshlands up there, yeah, now, it's dry, it's dry, you can just walk and it's not real wet. Used to have, I mean, here used to be all water ponds inside, just water all over there. [Joey Joao]

And then over time, maybe late '70s early '80s the ungulate population like goats would come inside and start to eat up. But, you would see the goats on the lower portion. What you see is that the goats eating up to a certain area and you can tell where they were because it's all—lack of vegetation on the lower half. You know, but, I didn't see them too much in the forestry area, more in the—they like it more in the open areas. That's the only difference with the goat. Used to have a lot of deer, in certain areas. In the Pu'u Kaua Road, all of the forested areas, the tree line areas we would then hunt for goat—I mean deer in those areas, but they used to be in the forest. [Billy Akutagawa]

I think that it's probably being better cared for now, and not because the local people are not good caretakers, just because I think we know more now, about things cultural and about things native. You know, when I was going to school, we learned, you know, King Kamehameha when throw all the guys off the Pali, yeah, but we never learned anything about our own king, our island history And I learned about Lewis and Clark before I learned about our Polynesian migration, so how can we be good stewards if I go up with them and I don't know how one *manono* is different from one *kiawe*, you know what I mean, I going buss' em, treat 'em all the same, "ah, rubbish," you know. So, I think now,

just because more knowledge and education going on, and because of that, Kamakou is probably in a better position now than ever before to be cared for is what I'm thinking. [Penny Martin]

I haven't visited that place [area in Preserve where she saw numerous native snails] in a while, but I'm thinking with, with more predator control, it's only logical that you would have more natives, you know, they cannot help but survive, right, because of lack of predators and there's more predator control going on than ever before, so, I would hope they're making a comeback. I don't go to that area very often, I go leave them alone and it's one place I do not show people. [Penny Martin]

There used to have so much. Today, I try look—I hear 'em, I look, but I no can find 'em, they're harder now to find yeah. But they're nice, they colorful, it was the first time I ever seen something and I was amazed—and we used to take people up and show 'em, “hey check out the shells, get snails up there,” show 'em the colorful snails. [Joey Joao]

The Nature Conservancy's Management Practices

Not as far as I can see because, I think they still allow access and, I don't know how it is now, what is their policy in regard to picking *maile*. Sometimes Hawaiians go up there to pick but it's not in the best interests because sometimes they bring them down, they use them in floats—and I think those practices is gone already. But other people go which they're not supposed to, but I don't think The Nature Conservancy puts a really strict ban on it because I've seen other people go and pick the ferns, they bring them down the lower portions in their yard and they try to grow the thing, yeah. [Billy Akutagawa, in response to whether the current management of Kamakou affects places of cultural significance or access to places of cultural significance]

But it's been a great partnership with The Nature Conservancy because they believe in the same things I believe in and so, it's very difficult to get the kids up to the forest because they need a four-wheel drive vehicle, they have to be closed-in, the kids cannot ride in the back of the truck, but Conservancy has been very generous to me with their vehicles and they have helped me get so many kids up into the forest, it's been wonderful. So, it's been a really good marriage. [Penny Martin]

The Nature Conservancy, you know all the stories that I heard—they were “evil; they don't let anybody go up there; they no like share, they no like—” you know... “Ed Misaki mean, he's like this, he like that” and I was like, how can this be—they've been a good thing. So I went up there and learned about it for myself and now I sit on the Advisory Council for Conservancy, but, I talked to Eddie about gathering and Eddie said, you know what, that's not his forest and he cannot tell me as a Hawaiian practitioner not to gather, but he would hope that I would do it responsibly. And I told him, I wouldn't be able to call myself a Hawaiian practitioner if I didn't do it with *kuleana*, you know what I mean—it's all my right to gather, but it is also my *kuleana* to gather properly. [Penny Martin]

And the dirt, they [students] got to get dirty, they got to eat up there in the forest and feel real hungry, you know, see the clouds whip around Waikolu. Yeah, so, Conservancy has helped me to do that, and, the reason they have helped me to do that is because they want to create better stewards of this land, as I do, and we both feel the same way. And they have the tools and I have the methods. [Penny Martin]

...Before was more, like I said, you could go up anytime you like and do a lot of stuff, I wouldn't say care, but no one was managing, so it's good now, people managing the

place so it's, you know, you have certain times you can go up there and do stuff and you know, a lot of times now, they always say you got to ask permission to go up there and grab things, gather things for make leis and stuff, supposed to be illegal for take 'em out, but I guess if you ask the right people you can go get, um, but, the changes is just, you know, like, they did the—the only thing, the Nature Conservancy did the boardwalk stuff, they put, they put you know—fix the trails and put metal for more people can look— [Joey Joao]

You know, like I said, we're particularly talking about The Nature Conservancy and I told you I talked to Eddie about that, and Eddie doesn't ever deny anyone gathering rights, but it is his hope, like I said, that they will go up and gather responsibly, because it's a lot of work, caring for a place like that and, so, I think, if anything, it improves the chance for cultural sites to be maintained, or cared for, or, you know. Just because, you know, if people know you're watching, they're more careful, yeah. [Penny Martin]

...The biggest, misconception with the local people is that Conservancy keeps them out, you know, the fences they build are to keep the animals out, not people. And the fences they build are not to keep you out of the forest, but to bring the forest back. So, I think, growing up, if you're anybody growing up on Molokai, the first fences that, the fences we were used to when we were growing up, were to keep us out. You know, when I was growing up on Moloka'i, if you going west end beach, you had to go through about five gates. And before you could go through the gates, you had to get permission, you actually had to get one key. So, if you were lucky enough to score the key, you could go to the beach, like I said, after you go through about five gates. So when 'Ahahui Alaloa got organized, and they started marching for gathering rights on the west end and the rights to have access to those beaches, it was to open up those gates and to take down the fences, and now we putting fences back up, so, you know, we have been raised with that notion that fences are bad and gates are bad and we want to get rid of them. So when you're putting up a fence up at Kawela to protect the forest from the deer or the goat, people see that as a bad thing, not a good thing because of our experience. So, it's all about education and I think, I think the relationship between Conservancy and the local people is just misconception and from growing up in a place the growing up before, fences and gates used to be a bad thing, yeah. [Penny Martin]

I don't know if they still take care I think Nature Conservancy still takes care of it [Pu'u Kolekole Cabin], which I hope they do and it would be good and it's a nice place up there, yeah. [Joey Joao]

Today they [The Nature Conservancy] make 'em easy for all the tourist and everybody like look here, which is good for the people that came to get smarter about our island, but as long as they take care of their 'ōpala that they leave, instead of leaving 'em, so, other than that, it's the same. [Joey Joao]

And the kids still go up there hunt—they give 'em, they let them hunt, they manage that, yeah, hunting, they get hunting up there for the locals—the residents, so they still have that, yeah, and I think the Nature Conservancy have things too, 'cause I think they lease a lot of that area, yeah, they lease a lot of that so they open up some kind of hunting and that's so, I think that's so they should've managed—they always like get rid of the animals so that—all that kind eradicate, you know, just to let the local hunters hunt a little bit maybe if they have a problem, let them hunt a little bit more—you know longer seasons, give them more opportunity for hunt 'cause hunters can thin their herd down, you know, but just have records on what's going on, yeah. [Joey Joao]

Nature Conservancy try take out what they can, um I know that for a fact in there they try to take out, but a lot of them 'cause they like eradicate they shooting 'em off the side of the gulch and then they just leaving them, which I think is a *pohō*, waste, yeah, but, that's how they do they thing, so...Nah, I heard of stuff that they leave stuff back, but most of the stuff they try to get out, where they can go and get them without somebody getting hurt. 'Cause I've heard of guys coming in from Maui, the State guys and they come with the helicopter and I've seen that when I'm hunting, you know, Pelekunu on the backside, on those valleys all on top, you know, and we seen 'em fly over and they shoot and they leave 'em. We get upset 'cause they telling us we can't go up there and hunt and we got to sneak up there to hunt and they just killing 'em for nothing and we killing them for food, there's a big difference—we eating 'em not just leaving 'em. [Joey Joao]

I think it's positive 'cause they trying to, you know, I mean, I know they trying to do good, you know, they trying to eliminate some of the animals because of all of the crap that goes down to the ocean, yeah, I mean, um, then they try to eliminate all of the invasive species with different kind trees, but, to me, I mean, that's why you get—that's what I tell 'em, that's why you get the pigs up there. The pig is like one tractor, he till the ground even though it going grow different kind stuff, he till the ground and the thing through new growth, yeah. To me, the thicker the forest, it supposed to be better because it holds the water in—it doesn't take it down to the ocean, yeah. So, you know, if they manage it right, they can do it, it's just, you know, I'm not involved with them, so, I see what they do, I see them cut trees, cut trees, and you know, I guess it's for a purpose, but for me, the thicker the place it holds the soil better, so, I don't know. [Joey Joao]

I don't hear too much people talking, it's just all it is was just couple time, just hunters, more hunters talking and they wish they could go hunt a little bit more you know, little bit more, deep into the area and stuff like that, but, I think, I think they're doing a good job, I mean, the residents do some hunting on the area and then also, I know people still go up there and gather stuff, so , at least they can still do it—they're allowed to still do it. And it's the people who—our people, who have to think about what they're doing up there, instead of just going ass crazy and taking more than what they're supposed to take, you know, just take what they need, yeah. That's the old basic thing—take what you need and everything going to work fine. The ocean, you take what you need, the mountain you take what you need and everything going to sustain itself. [Joey Joao]

Summary

According to the informants, Kamakou is a very unique and special place, still very much undisturbed by the outside world and thereby presents many opportunities. With one of the largest remaining endemic forests in the State, the preserve is a prime location for the community to gain a deeper understanding of cultural awareness through proper stewardship of this special place. And due to its rich natural and cultural resources, Kamakou deserves our utmost respect and care. Kamakou is not immune from change and has been affected by invasive species, the collection of its resources by uninformed guests, and the growing demands of the modern world. However, with continued education and outreach, Kamakou has great potential as a classroom, teaching lessons of sustainable living and cultural practices.

Cultural Resources, Practices, and Beliefs Identified

All of the sources consulted during this study indicate that Kamakou was a special place, where people generally did not have residences. Nevertheless, with the diversity of plants and animals present, the area was frequented by many Hawaiian practitioners such as *kumu hula*, bird catchers, canoe builders and *kāhuna lā'au lapa'au*, among others. Pre-Contact visitation to the heights of Kamakou can also be seen through the series of trails traversing the Preserve—which still continue to be used by visitors today.

The preserve's post-Contact history includes the sandalwood pit which serves as a reminder of the importance of responsible stewardship of our natural resources. Vestiges of the rich ranching culture are evidenced by the historic sites dotting the landscape of the preserve and include the various intake tunnels, water tanks, flumes, bridges, and historic cabin sites.

Currently, the preserve is used for gathering of plants, such as *maile*, *māmaki*, *kōko'olau*, *hō'i'o*, fruit, and ferns. *Ōpae* was also mentioned as a resource collected from the streams. Hunters continue to use the area as a means of subsistence.

Effects of the Proposed Project/Community Input and Concerns

The current projects being carried out by TNC in the Kamakou Preserve include ungulate control, weed suppression, watershed health maintenance and monitoring, and simply the perpetuation of the preserve in its current state. These projects should have little impact on the known cultural resources, practices, and beliefs of Kamakou, and several even have the potential to benefit the cultural resources of the preserve (e.g., invasive weed suppression, etc.). However, the cultural resources, and consequently the practices and beliefs, of Kamakou are at risk of being impacted by uninformed and uncaring visitors to the preserve. All of the informants were supportive of the efforts made by TNC to preserve and protect the cultural and natural resources. Since no formal work has been done in the preserve to locate, identify, and record such sites, there is presently no way to determine the potential negative impact to these resources.

An important connection between traditional gathering practices and contemporary gathering practices exist as the preserve remains a “special” area with access remaining to be somewhat limited as a 4-wheel drive vehicle is required. Informants shared stories of going up into “forest” and how, as a child, it was a true privilege to be able to “go up” and they recalled experiences gathering plums, *maile*, *māmaki* and *ōpae*.

Consultations with community informants all agreed that gathering practices continue today and were aware that, unfortunately, some visitors to the preserve take advantage of the open access to

gather excessive amounts of plants—instead of being responsible stewards and gathering only what they need. According to Joao, this is also true for some hunters who kill for the deer rack and do not take the meat for food. He expressed his concern regarding TNC’s ungulate control practices which strive for the eradication of animals. Joao asserts that hunters should help in thinning the herds, but not eradicate the population. He also mentioned that some hunters have expressed that they may be of more assistance to TNC with ungulate control through extended hunting seasons and expanded areas of use as alternatives to the practice of shooting animals and leaving their carcasses.

Several of the informants discussed the importance of responsible stewardship of both our cultural and natural resources and also discussed the importance of maintaining healthy forests and watersheds in order to better *mālama* our watershed and aquatic resources. Penny Martin, who has led educational tours for TNC with Moloka‘i students, recognized the many efforts made by TNC to educate the public on the unique resources of Kamakou and was very appreciative of their assistance in helping her take students to the preserve. Martin also lauded the Conservancy’s leadership in making Moloka‘i’s Earth Day celebration a large success—attracting thousands of Moloka‘i’s residents.

Confidential Information Withheld

During the course of researching the present report, no sensitive or confidential information was discovered in the background literature or communicated by informants. All results of this effort are therefore presented without hesitation or withholding.

Conflicting Information

No conflicting information was obvious in analyzing the gathered sources. On the contrary, a number of themes were repeated and information was generally confirmed by independent sources.

Proposed/Potential Physical Alterations and/or Isolation/Alteration of Resources

The present projects being undertaken by TNC in Kamakou—ungulate control, weed suppression, preservation—present very little potential to physically alter the known cultural resources of Kamakou. However, invasive plants have become established in areas of Kamakou and severely threaten the preserve’s pristine watershed and the many endangered flora and fauna present. Without a comprehensive survey and identification of the preserve’s natural and cultural resources, it is impossible to determine the extent of the threat from newly established vegetation. Again, this threat highlights the potential for losing a portion of the preserve’s historic context permanently.

Recommendations/Mitigations

No mitigations are proposed, as TNC’s management of the Kamakou Preserve was found to have no impact on cultural resources or practices. It is recommended that this Cultural Impact Assessment be revisited should the activities of TNC in Kamakou change substantially.

Other areas of further study might include complete Hawaiian language translations for texts that provide information on the preserve. Further research on the Hui Pohaku Club of 1939 might yield significant information of traditional use of Kamakou. It would be valuable to develop a list of names of people who were in the preserve for the project and conduct interviews to learn about their time there. This may uncover where the artifacts are now, what kinds of artifacts were collected, and where were they found.

Finally, it is recommended that a plan be developed to *mālama*, or care for, the resources associated with the material culture of Kamakou. Such a plan should address threats to cultural sites posed by people, animals, and the environment (including flooding, landslides, erosion, and destructive plants), thereby creating a comprehensive and long-term plan. The proper foundation for this plan would be a baseline archaeological reconnaissance or survey of Kamakou, since this has never been done. The cultural and historic resources of the preserve are currently poorly documented and most are probably yet to be discovered. The truism applies: “you cannot protect what you do not know you have.”

Glossary

‘a‘ali‘i	<i>Dodonaea viscosa</i> , the fruit of which were used for red dye, the leaves and fruits fashioned into <i>lei</i> , and the hard, heavy wood made into bait sticks and house posts.
ahu	A shrine or altar.
ahupua‘a	Traditional Hawaiian land division usually extending from the uplands to the sea.
‘āina	Land.
akua	God, goddess, spirit, ghost, devil, image.
‘amakihī	<i>Loxops virens</i> , a category of honey creepers endemic to Hawai‘i, known for their yellow and green feathers. Found mainly on the islands of Hawai‘i, Maui, and Kaua‘i.
‘ama‘u	The endemic ferns of the genus <i>Sadleria</i> . In traditional Hawai‘i, the trunk was eaten during times of famine, leaves were used as mulch, for dryland taro, stems were woven and used as sizing for tapa. One species was utilized for pillow stuffing. The ‘ama‘u fern was also one of the forms that the pig god Kamapua‘a could take.
‘ano	Kind, variety, nature, character, disposition, bearing, type, brand, likeness, sort, way, manner, shape.
‘āpa‘a	Arid or dry; dry area, clod of dirt.
‘āpoho	A depression or hollow; hollowed, pitted.
‘apapane	<i>Himatione sanguinea</i> , a species of Hawaiian honey creeper characterized by their black and red feathers. Found throughout the Hawaiian Islands.
‘aumakua	Family or personal gods. The plural form of the word is ‘aumākua.
‘ēkaha	<i>Asplenium nidus</i> , the bird’s nest fern, that has large, sword-shaped fronds. The midrib is used for decorating pandanus hats.
francolin	Species of the genus <i>Francolinus</i> present on all main islands.
hala	The indigenous pandanus tree, or <i>Hibiscus tiliaceous</i> , which had many uses in traditional Hawai‘i. Leaves were used in mats, house thatch, and basketry; flowers were used for their perfume; keys were utilized in lei and as brushes; roots and leaf buds were used medicinally; and wood was fashioned into bowls and other items.
hālau	Meeting house or long house for canoes.
hale	House.

<i>hānai</i>	Foster child, adopted child; to raise, feed, or sustain; a provider or caretaker.
<i>hānau</i>	To give birth.
<i>haole</i>	White person, American, Englishman, Caucasian; formerly any foreigner.
<i>heiau</i>	Place of worship and ritual in traditional Hawai‘i.
<i>hele</i>	To go, come, walk, move.
<i>hīhīmanu</i>	Sting ray (<i>Dasyatidae</i>) or eagle ray (<i>Actobatus narinari</i>).
<i>hīhīwai</i>	The endemic freshwater gastropod, <i>Neritina granosa</i> , which is eaten raw or cooked.
<i>hīnano</i>	The male <i>hala</i> blossom.
<i>hō‘io</i>	<i>Diplazium (Athyrium) arnottii</i> , a large native fern that grows at high altitudes. The young fronds are often eaten raw with shrimp or salmon.
<i>holoholo</i>	To go out or go for a walk or ride.
<i>hui</i>	A club, association, society, company, or partnership; to join, or combine.
<i>‘ie‘ie</i>	Vine of the <i>Freycinetia arborea</i> , an endemic, woody branching climber that grows at altitudes of 300–600m. In ancient Hawai‘i, vines were considered sacred and used in basketry and for ceremonial purposes.
<i>‘i‘iwi</i>	<i>Vistiaria coccinea</i> , Hawaiian honey creeper whose red feathers were used in feather work.
<i>‘i‘iwi pōlena</i>	Same as <i>‘i‘iwi</i> .
<i>‘i‘iwi pōpolo</i>	Immature, greenish-yellow, blackspotted stage of the <i>‘i‘iwi</i> bird, <i>Lit.</i> , <i>pōpolo</i> berry honey creeper.
<i>‘iliahi</i>	<i>Santalum</i> spp, refers to all types of Hawaiian sandalwood.
<i>‘iwa</i>	The frigate or man-of-war bird <i>Fregata minor palmerstoni</i> , with a wing span of 12 m. Used figuratively for “thief,” because the <i>‘iwa</i> steals food by forcing other birds to regurgitate; also used figuratively for a handsome person.
<i>‘iwi</i>	Variation of <i>‘i‘iwi</i> , a bird; considered by some an <i>‘aumakua</i> .
<i>kāhili</i>	Feather standard; a symbol of royal Hawaiian status.
<i>kāhuli</i>	Land shells (<i>Philonesia</i> spp.).
<i>kahuna</i>	An expert in any profession, often referring to a priest, sorcerer, or magician. <i>Kāhuna</i> is the plural.

<i>kahuna lā‘au lapa‘au</i>	Doctor of medicine.
<i>kai</i>	Sea, sea water; area near the sea, seaside, lowlands; tide, current in the sea; insipid, brackish, tasteless.
<i>kā‘i‘iwi</i>	<i>Strongylodon ruber</i> , misidentified locally as <i>S. lucidus</i> , a climber in the bean family, endemic in Hawai‘i, with three-parted leaves and large seeds. The flowers are clustered, red, and shaped like narrow beaks. Also called <i>nuku ‘i‘iwi</i> .
<i>kākāwahie</i>	<i>Loxops maculata flammea</i> , the Moloka‘i creeper, the male is red and the female is brown with red markings. Translates to “wood chopping.”
<i>kalo</i>	The Polynesian-introduced <i>Colocasia esculenta</i> , or taro, the staple of the traditional Hawaiian diet.
<i>kaluhea</i>	Fragrant.
<i>kama‘āina</i>	Native-born.
<i>kamani</i>	The Polynesian-introduced tree, <i>Calophyllum inophyllum</i> , that had many uses in ancient Hawai‘i. Nuts were fashioned into whistles, nut oil was used as a polish for wooden containers and as a fuel for lamps. Flowers were used for scenting <i>kapa</i> , fruit husks were made into a brownish mauve dye, and wood was manufactured into bowls.
<i>kanikau</i>	Dirge, lamentation, mourning chant, lament; to chant, wail, or mourn.
<i>kapa</i>	Tapa, cloth.
<i>kapu</i>	Taboo, prohibited, forbidden.
<i>kāpulu</i>	Careless, unclean, disgusting.
<i>kaua</i>	War, battle; to fight; army.
<i>kaula ‘ili</i>	Leather rope, lasso, strap.
<i>keiki</i>	Child.
<i>kiawe</i>	The algarroba tree, <i>Prosopis</i> sp., a legume from tropical America, first planted in 1828 in Hawai‘i.
<i>kikiwi</i>	Bent or curved, as a bird’s beak.
<i>koa</i>	<i>Acacia koa</i> , the largest of the native forest trees, prized for its wood, traditionally fashioned into canoes, surfboards, and calabashes.
<i>kōko‘olau, ko‘oko‘olau</i>	<i>Bidens</i> spp, refers to all species. Certain varieties used medicinally.

<i>kōlea</i>	The Pacific golden plover <i>Pluvalis dominica</i> , a bird that migrates to Hawai‘i in the summer; the native trees and shrubs <i>Myrsine</i> , the sap and charcoal of which were used as a dye, the wood used for houses and for beating <i>kapa</i> .
<i>kōnane</i>	A traditional Hawaiian game played with pebbles on a wooden or stone board.
<i>konohiki</i>	The overseer of an <i>ahupua‘a</i> ranked below a chief; land or fishing rights under control of the <i>konohiki</i> ; such rights are sometimes called <i>konohiki</i> rights.
<i>kuahiwi</i>	Mountain, high hill.
<i>kualono</i>	Region near the mountaintop, ridge.
<i>kuamauna</i>	Mountaintop.
<i>kukui</i>	The candlenut tree, or <i>Aleurites moluccana</i> , the nuts of which were eaten as a relish and used for lamp fuel in traditional times.
<i>kuleana</i>	Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.
<i>kumu hula</i>	<i>Hula</i> teacher.
<i>kupuna</i>	Grandparent, ancestor; <i>kūpuna</i> is the plural form.
<i>lau hala</i>	Leaf of the <i>hala</i> , or pandanus tree (<i>Pandanus odoratissimus</i>), used for matting and basketry.
<i>laua‘e</i>	A fragrant fern, <i>Microsorium scolopendria</i> , when crushed, its fragrance suggests that of <i>maile</i> .
<i>laukahi</i>	<i>Plantago major</i> , the broad-leaf plantain. Used traditionally to treat boils and diabetes.
<i>lehua</i>	The native tree <i>Metrosideros polymorpha</i> , the wood of which was utilized for carving images, as temple posts and palisades, for canoe spreaders and gunwales, and in musical instruments.
<i>lei</i>	Garland, wreath.
<i>lepo</i>	Dirt, earth; dirty.
<i>lo‘i, lo‘i kalo</i>	An irrigated terrace or set of terraces for the cultivation of taro.
<i>macadamia</i>	Nine species of the introduced tree <i>Proteaceae</i> , known for its edible nut.
<i>mahalo</i>	Thank you.
<i>Māhele</i>	The 1848 division of land.

<i>maile</i>	<i>Alyxia olivaeformis</i> , a native shrub used for twining.
<i>maka‘āinana</i>	Common people, or populace; translates to “people that attend the land.”
<i>makai</i>	Toward the sea.
<i>make</i>	Deceased; to die or kill.
<i>makou</i>	<i>Peucedanum sandwicense</i> , an herb in the parsley family that was used traditionally for medicine.
<i>mālama</i>	To care for, preserve, or protect.
<i>māmaki</i>	<i>Piptarus spp.</i> , a small native tree. Fiber from its bark was used to make a kind of coarse tapa. Sometimes spelled <i>mamake</i> in old texts.
<i>mamo</i>	<i>Drepanis pacifica</i> , Hawaiian honey creeper whose yellow feathers were prized for use in featherwork.
<i>mana‘o</i>	Thoughts, opinions, ideas.
<i>manono</i>	Endemic shrubs of the genus <i>Gouldia</i> , of the coffee family.
<i>mauka</i>	Inland, upland, toward the mountain.
<i>mauna</i>	Mountain, mountainous region; mountainous.
<i>mele</i>	Song, chant, or poem.
<i>mili</i>	Slow, inefficient.
<i>milo</i>	The tree <i>Thespesia populnea</i> , used traditionally for dye, medicine, oil, gum and for making calabashes.
<i>minamina</i>	Regret, to be sorry, or grieve for something lost.
<i>mo‘olelo</i>	A story, myth, history, tradition, legend, or record.
<i>nuku ‘i‘iwi</i>	<i>Strongylodon ruber</i> , a climbing legume native to Hawai‘i. It has leaves with three leaflets, and scarlet flowers shaped like narrow beaks, hanging in narrow clusters. Also <i>kā ‘i‘iwi</i> .
<i>‘ohana</i>	Family.
<i>‘ōhi‘a, ‘ōhi‘a lehua</i>	See <i>lehua</i> .
<i>‘ōlelo no‘eau</i>	Proverb, wise saying, traditional saying.
<i>oli</i>	Chant.
<i>‘ōlapa</i>	The native tree <i>Cheirodendron trigynum</i> , the leaves of which were used in <i>lei</i> , and fruit, leaves, and bark made into dye.

<i>olokele</i>	Same as ‘ <i>iwi</i> , honeycreeper.
<i>oloma‘o</i>	The Lana‘i thrush (<i>Phaeornis obscura lanaiensis</i>), or Moloka‘i thrush (<i>Phaeornis obscura rutha</i>), both endangered.
<i>‘ōpae</i>	Shrimp.
<i>‘opala</i>	Rubbish, trash, garbage, junk.
<i>‘opihi</i>	Limpets, four types of which are endemic to Hawai‘i: <i>Cellana exarata</i> (‘ <i>opihi makaiauli</i>), <i>C. melanostoma</i> , <i>C. melanostoma</i> (‘ <i>opihi alinalina</i>), and <i>C. talcosa</i> (‘ <i>opihi ko‘ele</i>).
<i>palapalai</i>	<i>Microlepia strigosa</i> , ferns can grow up to 4 to 5 ft in height. Used traditionally to decorate <i>hula</i> altars. Indigenous to Hawai‘i.
<i>paniolo</i>	Cowboy.
<i>pau</i>	Finished.
<i>pepa</i>	Paper, playing cards.
<i>pilau</i>	Rotten, foul.
<i>pine</i>	Trees of the genus <i>Pinus</i> , historically introduced to Hawai‘i.
<i>pōhaku</i>	Rock, stone.
<i>pohō</i>	Loss, damage, out of luck.
<i>puhi</i>	Eel, considered by some to be an ‘ <i>aumakua</i> .
<i>pule</i>	Prayer; to pray.
<i>punahele</i>	Favorite, pet; to treat with favoritism.
<i>pūpū kani oe</i>	A land shell (<i>Partulina physa</i>). Translates to “shell that sounds long,” for the land shells are believed to sing.
<i>pūpū kuahiwi</i>	Land shell.
<i>pu‘u</i>	Hill, mound, peak.
<i>pu‘uhonua</i>	Place of refuge.
<i>tī (kī)</i>	The plant <i>Cordyline terminalis</i> , whose leaves were traditionally used in house thatching, raincoats, sandals, whistles, and as a wrapping for food.
<i>‘uhaloa</i>	The weed <i>Waltheria indica var. americana</i> , the leaves and inner bark of which were used to make tea or chewed as a remedy for sore throat.

‘uku	Lice, fleas.
‘ulu maika	Stone used in the <i>maika</i> game, similar to bowling.
uluhe	Ferns of the genera <i>Dicranopteris</i> , <i>Hicriopteris</i> , and <i>Sticherus</i> . Also known as the false staghorn fern, they form dense thickets.
wana	Sea urchin, such as <i>Diadema paucispinum</i> and <i>Echinothrix diadema</i> ; some were considered <i>‘aumākua</i> in traditional Hawai‘i.
wao	A general term for the inland region, usually forested and often uninhabited.
wao akua	A distant mountain region believed to be inhabited only by spirits; wilderness, desert.
wao‘eiwa	An inland region.
wao ‘ilima	An area at a lower altitude than theed <i>wao ‘ama‘u</i> ; also called <i>‘āpa‘a</i> .
wao kanaka	An inland region where people may live or occasionally frequent, usually below the <i>wao akua</i> .
wao kele	Upland forest, rain belt.
wao lā‘au	Jungle, desert, or inland forest.
wao lipo	The inland region, said by Kamakau to be between the <i>wao‘eiwa</i> and the <i>wao nahele</i> . <i>Lit.</i> , dark <i>wao</i> .
wao ma‘u kele	Same as <i>wao kele</i> .
wao nahele	Same as <i>wao lā‘au</i> .
wauke	The paper mulberry, or <i>Broussonetia papyrifera</i> , which was made into tapa cloth in traditional Hawai‘i.
wiliwili	The tree <i>Erythrina sandwicensis</i> , whose light weight wood was used for surfboards, canoe outriggers, and net floats in ancient times.

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Appendix A: Guidelines for Assessing Cultural Impacts

Guidelines for Assessing Cultural Impacts

Adopted by the Environmental Council, State of Hawai'i

November 19, 1997

1. INTRODUCTION

It is the policy of the State of Hawai'i under Chapter 343, HRS, to alert decision makers, through the environmental assessment process, about significant environmental effects which may result from the implementation of certain actions. An environmental assessment of cultural impacts gathers information about cultural practices and cultural features that may be affected by actions subject to Chapter 343, and promotes responsible decision making.

Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups. Chapter 343 also requires environmental assessment of cultural resources, in determining the significance of a proposed project.

The Environmental Council encourages preparers of environmental assessments and environmental impact statements to analyze the impact of a proposed action on cultural practices and features associated with the project area. The Council provides the following methodology and content protocol as guidance for any assessment of a project that may significantly affect cultural resources.

Background

Prior to the arrival of westerners and the ideas of private land ownership, Hawaiians freely accessed and gathered resources of the land and seas to fulfill their community responsibilities. During the Mahele of 1848, large tracts of land were divided and control was given to private individuals. When King Kamehameha the III was forced to set up this new system of land ownership, he reserved the right of access to privately owned lands for Native Hawaiian ahupua'a tenants. However, with the later emergence of the western concept of land ownership, many Hawaiians were denied access to previously available traditional resources.

In 1978, the Hawaii constitution was amended to protect and preserve traditional and customary rights of Native Hawaiians. Then in 1995 the Hawaii Supreme Court confirmed that Native Hawaiians have rights to access undeveloped and under-developed private lands. Recently, state lawmakers clarified that government agencies and private developers must assess the impacts of their development on the traditional practices of Native Hawaiians as well as the cultural resources of all people of Hawaii. These Hawaii laws, and the National Historic Preservation Act, clearly mandate federal agencies in Hawaii, including the military, to evaluate the impacts of their actions on traditional practices and cultural resources.

If you own or control undeveloped or under-developed lands in Hawaii, here are some hints as to whether traditional practices are occurring or may have occurred on your lands. If there is a trail on your property, that may be an indication of traditional practices or customary usage. Other clues include streams, caves and native plants. Another important point to remember is that, although traditional practices may have been interrupted for many years, these customary practices cannot be denied in the future.

These traditional practices of Native Hawaiians were primarily for subsistence, medicinal, religious, and cultural purposes. Examples of traditional subsistence practices include fishing, picking opihi and collecting limu or seaweed. The collection of herbs to cure the sick is an example of a traditional medicinal practice. The underlying purpose for conducting these traditional practices is to fulfill one's community responsibilities, such as feeding people or healing the sick.

As it is the responsibility of Native Hawaiians to conduct these traditional practices, government agencies and private developers also have a responsibility to follow the law and assess the impacts of their actions on traditional and cultural resources.

The State Environmental Council has prepared guidelines for assessing cultural resources and has compiled a directory of cultural consultants who can conduct such studies. The State Historic Preservation Division has drafted guidelines on how to conduct ethnographic inventory surveys. And the Office of Planning has recently completed a case study on traditional gathering rights on Kaua'i.

The most important element of preparing Cultural Impact Assessments is consulting with community groups, especially with expert and responsible cultural practitioners within the ahupua'a of the project site. Conducting the appropriate documentary research should then follow the interviews with the experts. Documentary research should include analysis of mahele and land records and review of transcripts of previous ethnographic interviews. Once all the information has been collected, and verified by the community experts, the assessment can then be used to protect and preserve these valuable traditional practices.

Native Hawaiians performed these traditional and customary practices out of a sense of responsibility: to feed their families, cure the sick, nurture the land, and honor their ancestors. As stewards of this sacred land, we too have a responsibility to preserve, protect and restore these cultural resources for future generations.

2. CULTURAL IMPACT ASSESSMENT METHODOLOGY

Cultural impacts differ from other types of impacts assessed in environmental assessments or environmental impact statements. A cultural impact assessment includes information relating to the practices and beliefs of a particular cultural or ethnic group or groups.

Such information may be obtained through scoping, community meetings, ethnographic interviews and oral histories. Information provided by knowledgeable informants, including traditional cultural practitioners, can be applied to the analysis of cultural impacts in conjunction with information concerning cultural practices and features obtained through consultation and from documentary research.

In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless be affected, are included in the assessment. Thus, for example, a proposed action that may not physically alter gathering practices, but may affect access to gathering areas would be included in the assessment. An ahupua'a is usually the appropriate geographical unit to begin an assessment of cultural impacts of a proposed action, particularly if it includes all of the types of cultural practices associated with the project area. In some cases, cultural practices are likely to extend beyond the ahupua'a and the geographical extent of the study area should take into account those cultural practices.

The historical period studied in a cultural impact assessment should commence with the initial presence in the area of the particular group whose cultural practices and features are being assessed. The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs.

The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural, including submerged cultural resources, which support such cultural practices and beliefs.

The Environmental Council recommends that preparers of assessments analyzing cultural impacts adopt the following protocol:

1. identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua'a;
2. identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;
3. receive information from or conduct ethnographic interviews and oral histories with persons having knowledge of the potentially affected area;
4. conduct ethnographic, historical, anthropological, sociological, and other culturally related documentary research;
5. identify and describe the cultural resources, practices and beliefs located within the potentially affected area; and
6. assess the impact of the proposed action, alternatives to the proposed action, and mitigation measures, on the cultural resources, practices and beliefs identified.

Interviews and oral histories with knowledgeable individuals may be recorded, if consent is given, and field visits by preparers accompanied by informants are encouraged. Persons interviewed should be afforded an opportunity to review the record of the interview, and consent to publish the record should be obtained whenever possible. For example, the precise location of human burials are likely to be withheld from a cultural impact assessment, but it is important that the document identify the impact a project would have on the burials. At times an informant may provide information only on the condition that it remain in confidence. The wishes of the informant should be respected.

Primary source materials reviewed and analyzed may include, as appropriate: Mahele, land court, census and tax records, including testimonies; vital statistics records; family histories and genealogies; previously published or recorded ethnographic interviews and oral histories; community studies, old maps and photographs; and other archival documents, including correspondence, newspaper or almanac articles, and visitor journals. Secondary source materials such as historical, sociological, and anthropological texts, manuscripts, and similar materials, published and unpublished, should also be consulted. Other materials which should be examined include prior land use proposals, decisions, and rulings which pertain to the study area.

3. CULTURAL IMPACT ASSESSMENT CONTENTS

In addition to the content requirements for environmental assessments and environmental impact statements, which are set out in HAR §§ 11-200-10 and 16 through 18, the portion of the assessment concerning cultural impacts should address, but not necessarily be limited to, the following matters:

1. A discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations which might have affected the quality of the information obtained.
2. A description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken.
3. Ethnographic and oral history interview procedures, including the circumstances, under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained.
4. Biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area.
5. A discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken. This discussion should include, if appropriate, the particular perspective of the authors, any opposing views, and any other relevant constraints, limitations or biases.
6. A discussion concerning the cultural resources, practices and beliefs identified, and, for resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site.
7. A discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the proposed project.
8. An explanation of confidential information that has been withheld from public disclosure in the assessment.
9. A discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs.
10. An analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place.
11. A bibliography of references, and attached records of interviews which were allowed to be disclosed.

The inclusion of this information will help make environmental assessments and environmental impact statements complete and meet the requirements of Chapter 343, HRS. If you have any questions, please call 586-4185.

Appendix B: A Bill for Environmental Impact Statements

A BILL FOR AN ACT RELATING TO
ENVIRONMENTAL IMPACT STATEMENTS

[UNOFFICIAL VERSION]

HOUSE OF REPRESENTATIVES H.B. NO, 2895 H.D.1

TWENTIETH LEGISLATURE, 2000

STATE OF HAWAII

A BILL FOR AN ACT

RELATING TO ENVIRONMENTAL IMPACT STATEMENTS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that there is a need to clarify that the preparation of environmental assessments or environmental impact statements should identify and address effects on Hawai'i's culture, and traditional and customary rights.

The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the "aloha spirit" in Hawai'i. Articles IX and XII of the state constitution, other state laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.

Moreover, the past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture.

The purpose of this Act is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices.

SECTION 2. Section 343-2, Hawai'i Revised Statutes, is amended by amending the definitions of "environmental impact statement" or "statement" and "significant effect", to read as follows:

"Environmental impact statement" or "statement" means an informational document prepared in compliance with the rules adopted under section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic [and] welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

The initial statement filed for public review shall be referred to as the draft statement and shall be distinguished from the final statement which is the document that has incorporated the public's comments and the responses to those comments. The final statement is the document that shall be evaluated for acceptability by the respective accepting authority.

"Significant effect" means the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State's environmental policies or long-term environmental goals as established by law, or adversely affect the economic [or] welfare, social welfare[.], or cultural practices of the community and State."

SECTION 3. Statutory material to be repealed is bracketed. New statutory material is underscored.

SECTION 4. This Act shall take effect upon its approval.

Approved by the Governor as Act 50 on April 26, 2000.

Appendix C: Act 50

Act 50 [State of Hawai'i 2000]. H.B. NO. 2895 H.D.1 was passed by the 20th Legislature and approved by the Governor on April 26, 2000 as Act 50. The following excerpts illustrate the intent and mandates of this Act:

The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the “aloha spirit” in Hawai'i. Articles IX and XII of the State constitution, other State laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.

Moreover, the past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture.

The purpose of this Act is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of “significant effect” to include adverse effects on cultural practices.

SECTION 2. Section 343-2, Hawai'i Revised Statutes, is amended by amending the definitions of “environmental impact statement” or “statement” and “significant effect”, to read as follows:

“Environmental impact statement” or “statement” means an informational document prepared in compliance with the rules adopted under section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic [and] welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects....

Appendix D: Agreement to Participate

Agreement to Participate in the Kamakou Preserve Cultural Impact Assessment
Mina Elison, Ethnographer, Keala Pono Archaeological Consulting

You are invited to participate in a Cultural Impact Assessment (CIA) of the Kamakou Preserve in the Mauka region of Moloka‘i (herein referred to as “the Project”). The Project is being conducted by Keala Pono Archaeological Consulting (Keala Pono), a cultural resource management firm, on behalf of The Nature Conservancy, current managers of the Preserve. The ethnographer will explain the purpose of the Project, the procedures that will be followed, and the potential benefits and risks of participating. A brief description of the Project is written below. Feel free to ask the ethnographer questions if the Project or procedures need further clarification. If you decide to participate in the Project, please sign the attached Consent Form. A copy of this form will be provided for you to keep.

Description of the Project

This CIA is being conducted to collect information about the Kamakou Preserve in the *ahupua`a* of Kawela and Makakupa‘ia on the island of Moloka‘i through interviews with individuals who are knowledgeable about this area, and/or about information including cultural practices, legends, songs, or chants. The goal of this Project is to identify and understand the importance of any traditional Hawaiian and/or historic cultural resources, or traditional cultural practices in properties managed by The Nature Conservancy at Kamakou Preserve on the island of Moloka‘i. This Assessment will also attempt to identify any affects that the current management of the Preserve may have on cultural resources present, or once present within the Project area.

Procedures

After agreeing to participate in the Project and signing the Consent Form, the ethnographer will digitally record your interview and have it transcribed. The transcript will be sent to you for editing and final approval. Data from the interview will be used as part of the ethno-historical report for this project and transcripts may be included in part or in full as an appendix to the report. The ethnographer may take notes and photographs and ask you to spell out names or unfamiliar words.

Discomforts and Risks

Possible risks and/or discomforts resulting from participation in this Project may include, but are not limited to the following: being interviewed and recorded; having to speak loudly for the recorder; providing information for reports which may be used in the future as a public reference; your uncompensated dedication of time; possible misunderstanding in the transcribing of information; loss of privacy; and worry that your comments may not be understood in the same way you understand them. It is not possible to identify all potential risks, although reasonable safeguards have been taken to minimize them.

Benefits

This Project will give you the opportunity to express your thoughts and opinions and share your knowledge, which will be considered, shared, and documented for future generations. Your sharing of knowledge may be instrumental in the preservation of cultural resources, practices, and information.

Confidentiality

Your rights of privacy, confidentiality and/or anonymity will be protected upon request. You may request, for example, that your name and/or sex not be mentioned in Project material, such as in written notes, on tape, and in reports; or you may request that some of the information you provide remain off-the-record and not be recorded in any way. To ensure protection of your privacy, confidentiality and/or anonymity, you should immediately inform the ethnographer of your requests. The ethnographer will ask you to specify the method of protection, and note it on the attached Consent Form.

Refusal/Withdrawal

At any time during the interview process, you may choose to not participate any further and ask the ethnographer for the tape and/or notes. Please note that you will be given an opportunity to review your transcript, and to revise or delete any part of the interview.

Appendix E: Consent Form

Consent Form

I, _____, am a participant in the Kamakou Preserve Cultural Impact Assessment (herein referred to as “Project”). I understand that the purpose of the Project is to conduct oral history interviews with individuals knowledgeable about the Kamakou Preserve, in the mauka region on the island of Moloka‘i. I understand that Keala Pono Archaeological Consulting and/or The Nature Conservancy will retain the product of my participation (digital recording, transcripts of interviews, etc.) as part of their permanent collection and that the materials may be used for scholarly, educational, land management, and other purposes.

_____ I hereby grant to Keala Pono and The Nature Conservancy ownership of the physical property delivered to the institution and the right to use the property that is the product of my participation (e.g., my interview, photographs, and written materials) as stated above. By giving permission, I understand that I do not give up any copyright or performance rights that I may hold.

_____ I also grant to Keala Pono and The Nature Conservancy my consent for any photographs provided by me or taken of me in the course of my participation in the Project to be used, published, and copied by Keala Pono and The Nature Conservancy and its assignees in any medium for purposes of the Project.

_____ I agree that Keala Pono and The Nature Conservancy may use my name, photographic image, biographical information, statements, and voice reproduction for this Project without further approval on my part.

_____ I understand that I will have the opportunity to review my transcripts to ensure that they accurately depict what I meant to convey. I also understand that if I do not return the revised transcripts after two weeks from the date of receipt, my signature below will indicate my release of information for the draft report, although I will still have the opportunity to make revisions during the draft review process.

By signing this permission form, I am acknowledging that I have been informed about the purpose of this Project, the procedure, how the data will be gathered, and how the data will be analyzed. I understand that my participation is strictly voluntary, and that I may withdraw from participation at any time without consequence.

Consultant Signature **Date**

Print Name **Phone**

Address

Thank you for participating in this valuable study.

Appendix F: Transcript Release Form

Transcript Release

I, _____, am a participant in the Kamakou Preserve Cultural Impact Assessment (herein referred to as “Project”) and was interviewed for the Project. I have reviewed the transcripts of the interview and agree that the transcript is complete and accurate except for those matters delineated below under the heading “CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS.”

I agree that Keala Pono Archaeological Consulting and/or The Nature Conservancy may use and release my identity, biographical information, and other interview information, for the purpose of including such information in a report to be made public, subject to my specific objections, to release as set forth below under the heading “OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS.”

CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS:

OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS:

Consultant Signature **Date**

Print Name **Phone**

Address

Appendix G: Interview with Billy Akutagawa

Transcription of Interview with Mr. Billy Akutagawa

Mina Elison [ME]: Aloha, I'm here with Uncle Billy Akutagawa at Na Pu'uwai Native Hawaiian Health Care Center. It's December 22nd, 2:30 on a Wednesday and this is Mina Elison. And you have signed the Agreement and Consent forms. And the purpose of this study is to evaluate the potential impacts of the current management on cultural practices and resources of Kamakou by gathering general history, past/present land use and knowledge of cultural sites, gathering practices and *mo'olelo* and those kind of things. So, if you could just start by telling me about yourself, your name, when and where you were born, where you grew up and where you went to school.

Billy Akutagawa [BA]: Ok, My name is William Akutagawa. I was born on Moloka'i, Ho'olehua in...February 18th, 1948. But my home place on Moloka'i is in Kamalō on the east end of Moloka'i. Some, just basic things about family, my great-grandparents, come from—one of them, my great-grandfather—comes from Wailau Valley, in the back of Moloka'i. He was born and raised there and eventually married my great-grandmother who is from the 'Ualapu'e area on Moloka'i on the east end, and that's my Hawaiian background. The other side is my grandparents are—one is Japanese and the other is German.

I went to school here on Moloka'i, graduated from here and then eventually went off of Moloka'i to one, serve in the military and the other part is working in Honolulu and eventually went back to school—college.

ME: Nice. And so, what is your association to Kamakou, how you became familiar with the area and the Preserve in general?

BA: How I'm familiar with that place is that when I was growing up and later on when I came back from the military service, we used to hunt in the Kamakou area, all the different parts of it. Primarily for pig, we also went for goat and deer and that's my background on the Kamakou area.

ME: So, not so much as a kid, but more later when you came back?

BA: Later, young adult.

ME: And around what time—when was that?

BA: That was from 1970.

ME: And who would you go with, *'ohana*?

BA: No, I have friends from the middle part of Moloka'i, we all got together and we each had dogs and we each took our own vehicles—sometimes we buddy up and then we started to hunt all those areas of Kamakou.

ME: Nice. Do you have any specific recollections or personal experience of this area?

BA: Couple, couple of experiences. Again, was primarily was for hunting purposes that we went there, but I was also interested in what's in the area that I hunt and friends showed me different places—one where you go pick up *maile*, the other where you go pick up certain fruits, and general history of the area, where the trails are, where the springs are and what places were used by people a long time ago.

ME: So you became pretty familiar with the different trails of the area?

BA: Right.

ME: We have a map here. Which trails would you go over most frequently? The trail that's there on the Waikolu side?

BA: The most frequent trail was the Hanalilolilo Trail, we go from the lookout site all the way up to the Pēpē'ōpae bog and then we come back the opposite way down the—they call it a boardwalk, but they didn't have a boardwalk when we were going—we would come back down that side, meet in this area. Sometimes we take our Jeeps on the Jeep road, past the Deer Pen, go all the way up and then where the Pēpē'ōpae bog is, we come down so far and then we hike—there's a trail that hike down to the Intake. You see where this road ends, there's the Tunnel Road, we hike to get back up to the Pu'u Kolekole area and then sometimes we come back down this road, the Kawela Road—it's going into private property, we hunt that. We hunt in the Kamakou [Kamoku] Flats, we go on the Makakupa'ia Road, up to Deer Pen then we walk back down the 'Ōnini Road and then sometimes we go back down to the Center Ridge Road. Ok, sometimes we hunt in the Makakupa'ia area, we come back down inside this area and when we hunt, we come back down and we take one of the trails that comes back, actually it enters into Molokai Ranch Lands.

Ok, some of the other ones, we go from you know, the Kaulahuki area, it's a rough road coming down, so we probably never go down as much as we wanted to, but we go back up to the Waikolu lookout, we go back on the road here and then we get onto the Maunahui Road and we turn off into the Pu'u Kaua Road, go along the ridgeline get down to the backend of Meyer's and we hunt these areas up here for pig, pig up this area. Let's see, yeah, that's all the kind. And sometimes we go way up the Pēpē'ōpae bog, we go up to Pelekunu—where the overlook is and sometimes we walk back along the ridge inside there and it's all overgrown areas get plenty of moss inside there; walk back and find our way back where the boardwalk is and get the trail back to the main road.

ME: You think there are any trails that are not on this map that you can think of?

BA: The only trails that I know is not on this map is—between Hanalilolilo and the road that ends by the Kawela Intake, in-between that, we hunt pig in this area. So where the ridge goes up by Pēpē'ōpae and come back down, and we come back to the road inside here.

ME: And different areas would be better for different animals?

BA: It depends, because when we take the dogs, when we take the dog, we generally let the dog go and they going run and they going bark and wherever they bark going be sometimes on the trail and sometimes off the trail and so what we got to do is get into the area that they're barking to go down and get the pig, so, it takes us off the trail.

ME: So you know the area pretty well.

BA: Long time ago when we used to hunt.

ME: And you mentioned areas that were good for picking *maile*.

BA: Yeah.

ME: Is that spread all over?

BA: It's here, it's on this, you see where the Kamakou [Kamoku] Flats and the Hanalilolilo Trail, on this road coming down here, there's a cutoff point that you walk up a small gully and the *maile* is inside one of those small little gullies. See where the road goes like this? What it's doing is going down, turn around, swing back on top, glides back up. So in the down portion, get one area you walk up to pick up the *maile*.

ME: And the springs, are those...

BA: Part of the spring system was more on the lower side towards the—might be out of—cause this is the area that you're looking at [*points to boundaries of Preserve on map*].

ME: Yeah.

BA: It's probably outside of the area, it's probably more by the Maunahui Road toward Pu'u Kauga.

ME: Ok. And then the mosses, would you guys collect the mosses for any reason?

BA: No, we no collect the moss.

ME: It was just a really mossy area. Do you know of any *mo'olelo*, songs, or chants associated with Kamakou?

BA: No.

ME: You were saying yesterday about the *kauga*, somebody had told you about the *kauga*.

BA: Now that I look at the map, it's out of the Kamakou area. It's more in the—the Pu'u Kauga area is way down by Maunahui Road, the cutoff. You going see one sign that points to Pu'u Kauga that goes towards the back end or the portion of Waihānau—there's an area, there's a trail that goes down to Waihānau, there's an intake on the lower portion and the trail scoots back up and it's outside of the Study Area but it a point overlooking Kalaupapa, yeah. So, we used to hunt pig on top there. And when you hunt pig up there, you know, wherever the dog was going, take you to the edge, and sometimes, you don't see the edge where it goes over but there are signs up there that Territory of Hawai'i signs that says, "Entry is prohibited beyond this point by order of the Territory of Hawai'i," so somebody must have put those signs up so you don't go down into the Settlement area. "Entry only by permission" but whoever put those signs up there never maintained the signs, because who's going to maintain those signs, yeah?

ME: And do you know of any traditional sites that are or were located in this area, historic sites, like those cabins we were mentioning?

BA: On the far end, where you see the Pu'u Kolekole Cabin, there's that, where it says "Tunnel", there's a long trail that goes down and it hits the Kawela Intake and it climbs back on top to an area that goes up to Pu'u Kolekole. Pu'u Kolekole is kind of unusual place because we used to see the kind miniature plants and stuff like that. But the State cabin was there and from before, the cowboys used to go up there and used to try to drive that cattle out of there, bring them back down. But sometimes they spend one week up there, they kill the cattle. One of the cowboys told me, we kill the cattle, we strip the hide and we use that hide—while we get time up there—to make the *kaula'ili*, you know the lasso, you know the skin rope. You know, they get plenty of time up there and do that.

ME: Have you ever stayed up there?

BA: No, I just went up, stay a little while and then come back out, we just hunting.

ME: So, can anybody just go more or less stay there or you have to know someone that has key?

BA: For me, anybody can go. All they have to do is—the entry point is from Kawela Plantation, you take the Number 3, you take that old road, go all the way up to the top, get one gate. Just climb over the gate and you can follow the road all the way up to where the cabin is. Nobody maintains those roads, the roads are gone already. I mean, it takes a lot of bulldozer work to make the road better.

ME: Is the cabin still there?

BA: I don't know if the cabin is still there.

ME: How big was it?

BA: Not that big, not that big. They had their own water tank—redwood water tank, small version of a larger one which traps on it and then they collect water inside for the guys use.

ME: And so that was in the '70s.

BA: That was about the late '70s we used to be up there.

ME: You were saying yesterday that you've never really seen too many archaeological sites.

BA: No, in the forested areas, you don't see too much, yeah, because it's mostly overgrown. We may have stumbled across, but we were more hunting pig, yeah.

...

ME: It was overgrown so you couldn't really see.

BA: Couldn't really see. There may have been something but we couldn't really see. I'm trying to think where else we went cause on the lower portions of the Maunahui Road on this side, did I see anything. If I did see anything, probably would've been out of the area, outside of the area.

ME: Like rock wall, or platforms.

BA: Might be platforms.

ME: You never heard of having burials up there?

BA: Burials...no.

ME: You mentioned gathering practices of *maile*.

BA: The other gathering was for...what's the name...was for fern, you know fern shoots?

ME: *Hō'i'o*.

BA: *Hō'i'o*. One was *hō'i'o*, think it was the *hō'i'o*, there was a site but it was on the Pu'u Kaua Road. I was shown that site so we could go pick over there. The other one was on the trail going up, you know the Pēpē'ōpae bog, you see this thing come up, a flat grass. I don't know, have you ever picked that, peeled it and ate the inside?

ME: No.

BA: Used to eat that. One of my friends, when we would go hunting would say, "oh, we going to eat this." He had a Hawaiian name for it. It grows in clumps and you break it and you peel the thing and the inside part you eat.

ME: And was it sweet?

BA: I don't know, I'm trying to think of what it tastes like but it's not an obnoxious taste, it had a good taste. That, and just at the start of the Pēpē'ōpae, right there, what we used to pick there? I'm trying to think. Was it the plum or mountain apple? Might have been mountain apple we used to pick it, just from there before we start the trail.

ME: And sometimes you would spend the night other times it was a day trip.

BA: Mostly it was a day trip, only one time we did a night we try to get from Tunnel Road, Kawela Intake up to Pu'u Kolekole and then we slept just before the road enter into the Pu'u Kolekole Cabin. We slept down there. That time we went with a bunch of guys so we were doing it night time, yeah.

ME: Cause pigs you can hunt during the day.

BA: Daytime, daytime mostly. Pig are active during the night, but early morning hours they going probably hide and go bed down.

ME: Sleep in [*laughs*].

BA: There's another thing we found out, you know where the Waikolu Lookout is, you go up the Hanalilolilo Road, you come back down we go to the Pu'u Ali'i area, and then when we're crossing this area, cause we're hunting pig right along here, when you cross in here, one of my friends told me, "can you see that, there's a pipe that runs along here, it's an unusual pipe, it's made of wood."

ME: Wood pipe!

BA: Yeah. I don't know what—I think he told me a long time ago they didn't have pipe, so they get lats of—strips of redwood, they put 'em together and they wrap them with wire and then lock it and tie it. So a couple of areas along there, I was looking and seen the pipe, was, some was exposed, some areas but, you know the thing was pretty old already. I told them, "when they stop using these," and he said he don't know. He said his grandfather told him.

ME: So you guys never saw it?

BA: I saw it, I saw it, because it was exposed already. And I think his grandfather had told him, "ah yeah, they used to use that water as one intake to run back" and then one of them where the Waikolu Lookout is, right along the side there's a trail that runs down into Waikolu Valley and then I went through the Tunnel one time and the guy told me, "Ok, this is where the trail begins from here." What did the guys used to do with this trail? They would walk up and down the trail and then walk down the trail and go through Waikolu to get to Kalaupapa.

ME: Yeah, yeah, yeah. So how big was the pipe?

BA: The pipe was maybe about I would say two to three inches in diameter.

ME: So, at one time it was all buried?

BA: No, certain parts was exposed and certain parts of it may have been buried.

ME: And was it going along the ridge, you think?

BA: No, no, no, along the edges of Waikolu, along the upper reaches, the pipe was going around like that. I don't know how far the pipe went extend.

ME: Interesting, that's really interesting. Most of the knowledge you got was from being in the area and hunting, but did you get any stories from people—

BA: Old-timers, old-timers said. A lot of the old-timers would tell me that there were a lot of Chinese working up there. They were the small guys, hard workers and they use them to do the tunnel, the tunnel to the Kawela Intake, yeah, and they did the tunneling and they did the tunneling for the Pu'u Kaua area, one intake.

One guy was interesting, he would go to the site where these guys used to do it—the Chinese, to go look for bottles. He showed me a bottle one time. The bottle was a glass bottle, where the wire tie on top and the stopper, either was cork and fell away, but they used to cap that as their water when they're working, for water to drink.

ME: And when was that, when they were making the Tunnel?

BA: Ah, the Tunnel must have been done way back in the ranch times, especially the intake one, must've been done, maybe a little past the turn of the century they were doing that.

ME: I wonder where they would stay, just make camp?

BA: They probably would live up there.

ME: Wow, that's interesting. And, how has Kamakou changed over the course of your lifetime?

BA: Um, couple instances where the thing changed was that, used to have more rain up there, always wet. And then over time, maybe late '70s early '80s the ungulate population like goats would come inside and start to eat up. But, you would see the goats on the lower portion. What you see is that the goats eating up to a certain area and you can tell where they were because it's all—lack of vegetation on the lower half. You know, but, I didn't see them too much in the forestry area, more in the—they like it more in the open areas. That's the only difference with the goat. Used to have a lot of deer, in certain areas. In the Pu'u Kaua Road, all of the forested areas, the tree line areas we would then hunt for goat—I mean deer in those areas, but they used to be in the forest.

And part of the forest, when you first went up there, used to be thick and was planted all in rows. Over time, the forestry workers would cut the lower branches because there was always the danger of fire, yeah. So they trim up to a certain height and try to keep it trim like that, so when the fire, they wouldn't have these things called "burn outs." When that thing hit the Norfolk pine, some of the pine trees, the fire go up the middle and go all the way up to the top and then blow up at the top 'cause all of the inside branches are dry, only the outside branches is wet, all green. So the thing burn from the inside, go...So when they had forest fires, always had that kind of stuff that happened. So, I think their idea was to, one wasn't only trimming, but they need to clear cut the area because it's too thick. You plant the thing so many rows apart and the thing start to intertwine like this, so they get really thick, yeah. You ever went up that road?

ME: Yeah, I did, I did.

BA: When you come down the lower slopes where all the pine trees are you can see them all lined up.

ME: And when you say there was more water, was that because you could tell on the surface when you're actually walking it's more wet?

BA: Wet, wet, used to be really wet before. Over time, most of the place kind of like dried out. I don't know if it's changing weather patterns or what. All along the lower portions, might be out of the

Kamakou area when you get to the lower portions, when the thing start to open up, you going see a lot of—I think still get—a lot of, what’s that other...*kōko ‘olau, kōko ‘olau*, Hawaiian tea, yeah.

ME: Different from *mamake* [sic]?

BA: Yeah, different, more dry type, kind of like yellowish flowers, get long leaves. Couple times went pick and then what we would do is take them home and let them dry up in one box and then we use that...the *māmaki* one was more in the kind Pelekunu Valley, get plenty *māmaki*. Probably get up in these other areas too, but I didn’t really take notice of it, you know, when we were hiking.

ME: *Māmaki*, not *mamake* [laughs].

BA: *Māmaki, māmaki* tea. The one’s in—probably the better one’s I ever saw was probably in Pelekunu. Pelekunu has really nice in the back end of the valley, thick, just loaded. But get in these areas, because other people told me they picked up.

ME: And do you think the current management of Kamakou affects a place or places of cultural significance or access to a place or places of cultural significance?

BA: Not as far as I can see because, I think they still allow access and, I don’t know how it is now, what is their policy in regard to picking *maile*. Sometimes Hawaiians go up there to pick but it’s not in the best interests because sometimes they bring them down, they use them in floats—and I think those practices is gone already. But other people go which they’re not supposed to, but I don’t think The Nature Conservancy puts a really strict ban on it because I’ve seen other people go and pick the ferns, they bring them down the lower portions in their yard and they try to grow the thing, yeah.

ME: Can it grow?

BA: Yeah, it can. I’ve seen it grow. My friend has in his greenhouse. But you just got to give it heavy water. He even has *lehua* growing down there.

ME: So they don’t—I should know this—but, you can still go up there and hunt.

BA: Yeah, you still can, still can but you know, there’s a State requirement that you kind of sign in, sign out, make sure everyone is out of the area at darkness and whatever and then you record your game, how much game you shot. That to me is a control factor up there.

ME: What about birds?

BA: Get bird hunting, too. The State bird hunting program, they allow bird hunting inside of that area. It’s a good system now that the bird season come in and then game animal season is out. And then when bird season end, game animal season is starting.

ME: What kind of birds can you hunt up there?

BA: They get, I think in the lower portion, I think they hunt the pheasant. You get the erckel francolins, you get the francolins, black francolins. I don’t know about turkey, I don’t think I’ve ever seen turkey down there.

ME: Cool. Are you aware of any other cultural concerns the community might have related to Hawaiian cultural practices within, or within the vicinity of Kamakou, cultural concerns?

BA: No, I don't know of any other cultural practices other than what I just told you about the *hō'i'o*, the other stuff we were eating, pick up *maile*. Other than that, I don't think there's any radical concerns about that.

ME: That's good. And yesterday, we talked a little about other people who might be willing to share their *mana'o*. Could you think of anybody else we might have overlooked—to make sure we cover our bases. I know you were saying people from the Meyer family.

BA: Yeah, and there's probably the Joao family too. I don't know if it's Joseph Joao—I'm trying to figure out his name. If you talk to Joey Joao he can tell you if his father them—'cause his father used to work for the Ranch. And part of the Ranch system is that they had to control the intake up there and take care. Actually, the Kamakou area was part of Molokai Ranch, so they signed an agreement with The Nature Conservancy allowing them to become managers of the Kamakou area. The Meyers', the Joao family, who else used to go up there...a lot of different people used to use that place. I'm trying to think who else. I can't think of any of the old-timers, they're probably all gone already. You know who you should talk to, Earl Pawn.

ME: What's the name?

BA: Earl, E-a-r-l, Pawn, P-a-w-n. Earl's an old-timer in there. Old-timer, hunter, "Pig Hunter," his cousin used to call him that. He was probably one of the main hunters on the island.

ME: And where does he live?

BA: He lives in Ho'olehua.

ME: Ok, Ho'olehua.

BA: His son also hunts that area, Dolphine Pawn.

ME: Dolphin.

BA: Dolphine, D-o-l-p-h-i-n-e, I think, Dolphine, Dolphine, he hunts that area. Dolphine Pawn. Talk to Dennis Kamakana...Who else were the old-timers hunters up there...maybe if we keep talking the thing will come to my head then. I can see them long time ago hunting. Probably Bull Delacruz, Severino Bull Delacruz.

...[Mr. Akutagawa takes phone call]...

ME: I know you're busy, so that's all my questions if you have anything else you want to add...but...

BA: I'm trying to think.

ME: I can always leave my contact information with the front desk and...we were just wrapping up with the old-timers we might try to talk with.

BA: Most of these guys are more the hunters, yeah. Except for the Meyer and except for Joao side, they were more working the side of the Ranch and, gee, but lost a lot of the old-timers though, they gone already, yeah. Guys who frequently used the place, they used to go up with the Ranch. There was an English, maybe you can talk to him—Parker English, Hawaiian family, they used the place, yeah. He lives in Ho'olehua. Joao lives in Kalama'ula. Joey works for the Ranch, so you can talk to him about it. He probably doesn't know as much as his father does. Hmm, the guys that used to use that place...old-time cowboys gone that ride through that place, short cut coming down, they know all of the horse trails coming down, it cuts through those areas.

ME: Ok, that's my shortlist of questions. I was going to ask you, did you ever see caves, caves in the area?

BA: I'm trying to think, yeah. We probably never go in, but, pigs go in, yeah. We let the dogs get 'em out. Probably only short, only short kind. I don't know if any habitation was going on inside of them. Get the dogs to get out the pig, yeah.

ME: So, more small caves instead of bigger ones? So kind of all over?

BA: More toward the lower part, more in the—you know the big gulches that running down, on the side, yeah. Sometimes the pigs run on the bottom part, but, we cannot get to them, we let the dogs try flush them out, yeah.

ME: How many dogs do you guys take with you, it depends?

BA: Nine dogs—three, three, three. Some guys like me only get two, the other guys get the rest of the dogs. And then so, when you take the dogs, to keep them active you got to go every weekend. So when you go every weekend, you got to take all these dogs and then, that's not the worst part. The worst part is, you know, when you open out of the pen, you let them run around, yeah. They're running around and so, they piss or shit or do everything. 'Cause when they get on your vehicle, they going, and it's kind of a long ride you know up there with shit or piss on your vehicle so you end up and it going stink.

ME: Oh no!

BA: And then when you get the pig—that's only the first incidence, when you get the pig, that's another one, 'cause you got to pack it out. The pig get ticks sometimes, 'ukus and they come on you and you know...The dogs all get personalities.

ME: Yeah.

BA: The dogs all get personalities, some are...we used to have one big dog, we used to call him Blue. He never runs at anything, he doesn't, he always takes his time, you know, and we always know where he stay. And then get some other dogs that are like, soon as he get something, he like go onto another stuff already, so they don't give time. Some dogs, they catch something and then they don't want no other dogs come around until the human come over there and cut him and tie him up.

It's kind of a rough business because sometime you take young dogs in there and you want to train the young dog. You catch one small pig, you cut the two back tendons, he cannot run and you let the small dog go in ready to bite, yeah, just get a feel for it. If it's a big boar, you going to try to kill the boar first 'cause they could tear up the dog. And then...

ME: And you guys are hunting with knife, knife or gun, knife?

BA: Primarily knife but the dogs do all the work. And when you lose your dog, that's another story. You lose your dog, they don't come back, you're going to have to throw your shirt or jacket by the side of the road and then you have to come back later the next day, hopefully the dog come out, smell your jacket, stay over there by the jacket, lie down and wait. Sometimes it's not—sometimes you lose the dog, and then they run like other feral dogs and it gets worse, somebody going kill them all.

It's a good, the kind, when you young, yeah. When you get old, you know...

ME: Dogs all have personalities, just like people though, right?

BA: Just like people. We have one dog that go by air, you know, the trackers can go by air, or they go by ground. Ground wet, not going do too much. But air and ground dog, they going by smell and their job is to find the animal and bark. Then the grabbers, they do the majority of the work, they going come in, they going grab the pig. And if you listen and get screams, probably get one female pig. If you don't hear screams and you hear your dog getting hurt, that's a boar. They're going to tear up the dog. And then we come back, we cut up the pig, put up all the bones, feed them that, 'cause if you no feed the dog the pigs, the dog meat going kill you. Dog meat—the dog food going kill you.

ME: Really?

ME: You know you have to buy it by bulk, yeah, to feed them. You don't have enough, you have to feed them enough, that's not to mention the shots that you have to give them and you got to take care them. You know we had one dog, totally bust up, the jaw fell off. It was a pit bull, you know, you don't want pure bred, you want mix breed—they survive longer and said, "ah, shit, we got to send it Honolulu" cause that time we never had a vet, so they have to sew the jaw, you know, he going wire the jaw and the dog come back, come with a paper from the guy, the vet, "this dog cannot be used anymore for hunting." We no listen, we take him out.

ME and BA: *[laughs]*

BA: Otherwise they not worth their weight to just keep him the pen, yeah.

M: Yeah.

BA: And you got to lock them up. You cannot let a pig dog. 'Cause there's just that instinct already they want to kill something, you got to pen them up. You know, when you go to the pen to go pick them up, ho, they can hear you coming and they going make noise, they going howl, ready, with their leg going like that. They like get out already, they like get on. And then each one of them get one leash, yeah, so you can leash them up when you coming back of that area because you're still responsible for the dog.

ME: Yeah, yeah, yeah.

BA: Some of the young ones just run around but stay with the older ones but, yeah.

ME: That's important too, to have good older dogs that can train the other dogs, I mean, you train them too, but they're really going to learn from the older dogs.

BA: They train actually by going out and doing the hunt with them. They might not be the most adept buggers inside there, but once you get one pig—they hear that noise, they hear the yelping, they going want to go.

ME: They know what to do, naturally.

BA: Yeah, yeah, they learning. It's a good practice...but even with three dogs it is costly. Costly for raise three dogs, especially if you're only using them for hunt. The problem is that they got to be in that pen—lock up and for the rest of the week you have to feed them, shoot out the pen, you got to clean them, you know.

...

ME: Thank you so much for your time.

BA: Good luck on your guy's work.

Appendix H: Interview with Penny Martin

Transcription of Interview with Mrs. Penny Martin

Mina Elison [ME]: It is Wednesday, December 22nd [23rd].

Penny Martin [PM]: Two days before Christmas.

ME: Two days before Christmas, we're with Aunty Penny's house—where do you consider this [house]?

PM: Kalama'ula.

ME: Kalama'ula. And Penny Martin and this is Mina Elison. It's 2010. And she has read the agreement to participate and do you have any questions before we begin?

PM: No.

ME: And the purpose of the interview is to collect information about Kamakou Preserve and it's for a Cultural Impact Assessment and so we're getting, basically doing the interviews and we do a lot of background research, that mostly Steve [Eminger] is doing the background research and I'm doing the interviews. And it's to evaluate potential impacts of the current management on cultural practices and resources of Kamakou and we do this by gathering general history, past and present land use, knowledge of cultural sites, gathering practices, *mo'olelo* and traditions. So I have my list of questions. So we'll start, can you please tell me a little about yourself; your name, where you were born, where you grew up and where you went to school.

PM: Ok. Penny Martin, actually, Penny Rawlins Martin, Rawlins is my middle name.

ME: R-a-w-

PM: l-i-n-s. Where I went to school?

ME: Yeah.

PM: Kaunakakai.

ME: Yay.

PM: Kamehameha and a little bit of Hastings College in Nebraska.

ME: And you were born in Kaunakakai?

PM: I was born at Ho'olehua in the old Shingles Hospital which no longer exists.

ME: And can you tell me about your *'ohana* family background?

PM: Ok, well I wanted to say too that I did sail on Hōkūle'a and I'm mentioning this because I think it was a turning point in my life for cultural understanding and *'āina* appreciation so it kind of opened up a lot of, you know—it turned on a lot of lights for me and I think my experience on Hokule'a made me a better steward.

So I sailed in 1976 on the first voyage and, you know, yeah, so you sail—you stand in the footsteps of your ancestors on the canoe, but when you come home, you look through their eyes and so it's like looking at Hawai'i for the first time and then you realize your *kuleana* and how special this place is. So,

I needed to mention that because it was a big turning point in my life—although, we were always trained to be good stewards of the land here, even brought it home more as an adult person.

ME: Last year we went to Kaho‘olawe and I felt the same way.

PM: Yeah, it’s like those “wow” moments—that was a “wow” moment for me.

ME: Oh, I bet. That’s special

...

ME: So, your ‘ohana is from Molokai, or all over?

PM: From Molokai, never knew my father, so my father was pure *haole*, I believe he was Irish but he was a soldier that was stationed here, you know, got Mama pregnant and then ditched. So, I never knew him but I was told I look like him, I have his built and his height, but I definitely have Mama’s hands and feet and my grandma’s hair, so. My grandma was pure Hawaiian, she married my grandfather who was Portuguese and this is her homestead, yeah.

ME: Gorgeous.

...

ME: And what is your association to Kamakou and how you became familiar with the area.

PM: My husband [Dave Martin] and I would bring the kids home every—well, you know, when you’re growing up, you would always hear about the forest, yeah, and we grew up no more car, yeah, us, ‘cause my mom was single mom, five kids, we were poor, so she walked to work and stuff, so, if we had the good fortune for someone to want to take us five kids up with them, that’s like a big treat and the forest, it’s just like going to Disneyland for us ‘cause it’s so unreachable, yeah. So, it was always a special place, we knew that.

And then when we were—later on when my husband and I we had our children we were living on O‘ahu for a while in Punalu‘u but we would bring them home every summer and especially during the holiday at Thanksgiving, that’s my mom’s favorite holiday. And so when we come home, it was cheaper to ship our dune buggy home than renting a car and our dune buggy was street legal, so we would hit it up to the forests and even before the children, when I met him, when we were like dating, he had a motorcycle and he would pack me and we would go up and get plums. Had the big plums up there in the summer. So it was always a gathering place for us and a place that we appreciated so we would go up there a lot.

But it was later on when I moved home in ‘91 with my family to stay home permanently I got a job working part-time for Moanalua Gardens Foundation and their mission was to foster environmental and cultural education, so, the things we taught were geology, geography, native plants and animals and human impact and of course Kamakou is prime fieldtrip, you know, learning experience. So, yeah, so, part of my training for that organization was to learn about native plants and animals and learn about the geology—I had to learn about all of that so I could teach it. So, mine was to teach specifically about Molokai, so, we made many trips up to the forest and I started learning the names of all those plants that I had seen all my life and not even realizing that Kamakou is over 95% endemic. That’s like awesome. So, the more I learned about Kamakou, the more I realized that we have a jewel up there. And then you know, of course later on, sitting on the canoe realizing that we need to be better stewards of the land, that became more of a mission. And then I started—The Nature Conservancy started a docent program and I was one of their first docents. In fact, my girlfriends and I, we did one of the first docent things and they, the people that were on our little tour dubbed it the “tita tour”.

ME: [laughs]

PM: And then people thought it was an actual tour and they would call the office and request the “tita tour” because we were like, you know—Tanya, she’s an entertainer, so, we would be up on the bog and I would go, “This is a *wahine noho mauna*,” and you know Tanya she would go, “Yeah, you know [singing to tune of *Wahine ‘Ilikea*] *wahine noho mauna*” and she start dancing *hula* and singing right on the boardwalk and we let our people, like, you know, you supposed to take ‘em up, show ‘em this and that and then come back down—us, we were like, “Cool, you like go *holoholo*? Go experience, feel the forest, go *holoholo*, go look.” You know, and, ‘eh, we had the longest tour, we came back down and was almost dark already. They were worried, they thought something happened. But no, we were just having so much fun, you know, yeah.

ME: That’s so awesome.

PM: So, it was like, “what do you call this?” “The tita tour,” and they start requesting it. Just the other day, someone said, “I like go tita tour with you.” [laughs]

ME: [laughs] So was that when they first make the boardwalk that you would do the docent tour?

PM: No, the docent tour happened...shoots...

ME: Before that?

PM: No, no, no, after. It was just recent. I don’t know how many years now. More than five years ago but we were the first—the boardwalk was already in place and The Nature Conservancy was already up and running but then they decided to start this docent program because so many people requested to go up but they didn’t have enough workers. So I went to go docent because it was an opportunity for more training to teach what I teach. Yeah, and you know, yeah, so, I still do it every once in a while when they really need somebody I’ll go up with them. But it’s been a great partnership with The Nature Conservancy because they believe in the same things I believe in and so, it’s very difficult to get the kids up to the forest because they need a four-wheel drive vehicle, they have to be closed-in, the kids cannot ride in the back of the truck, but Conservancy has been very generous to me with their vehicles and they have helped me get so many kids up into the forest, it’s been wonderful. So, it’s been a really good marriage.

ME: That’s good. How do they make the truck—do they cover the trucks?

PM: No, no, no, they use enclosed vehicles like Tacomas and, like, the 4-Runners. Yeah, they all have to sit inside. They used to be able to ride behind the truck until somebody got hurt. Same thing, like, you used to be able to go Chinaman’s Hat until somebody drowned.

ME: Ah, makes it more safe.

PM: But, yeah, they’ve helped me get so many kids up to the forest, it’s been incredible—and Mo’omomi.

ME: They still do the docent training?

PM: Yeah. Steve was—you went through that training, yeah. You were on the first one with us, yeah, Steve, you came—you were, yeah? When was that, Steve?

Steven Eminger [SE]: I don’t even know when that was.

PM: More than ten years?

SE: Around ten years.

PM: Around ten years ago. It was a brand new thing. It was really good training, it was great.

SE: That was the basics and then, you—you took it to another level [*laughs*].

PM: I did the “tita tour”? [*laughs*]

ME: And so, before that would you go up—he [Steve Eminger] was saying that you do lei making.

PM: You see that tree [*refers to Christmas “tree” a few feet away*]?

ME: Oh my gosh.

PM: I made that.

ME: It’s beautiful.

PM: You know how you make the horse leis? That’s about nine of them.

ME: Gorgeous.

PM: Most of them came from the forest and I tried to use invasive species like all the pine and all the pine cones and I have very, very little *lehua* here and there for ambiance [*laughs*], but not too much. And so I have—so all the pine I have came from there. I didn’t feel guilty about that because it’s invasive, so that was my filler, and then macadamia nut leaves, *kamani, milo*.

ME: So you’ve been going up there to pick for *lei* for long time?

PM: When I was living in Punalu‘u, I had an interest in lei making, and so my girlfriend and I would make leis every year for the Hawaiian Civic Club.

ME: Oh, which one, Ko‘olaupoko?

PM: Ko‘olaupoko. You know Sherry Evans?

ME: Yeah.

PM: She *make, minamina* that one. But she told me, if you want to learn how to make *lei*, just come help me and Auntie Lei. So every year, we’d gather at her house on a Wednesday night and start and between the three of us, we’d make anywhere between 30 and 50 leis to sell, so we just sit in her living room with wine and baskets and jars and buckets of flowers and ferns and everything you could think of and we would just make *lei* and, that’s how I learned. And so when I came home, I continued to make *lei* and you know, when I came home, The Nature Conservancy, you know all the stories that I heard—they were “evil; they don’t let anybody go up there; they no like share, they no like—” you know—Steve [Eminger], you like heard it—“Ed Misaki mean, he’s like this, he like that” and I was like, how can this be—they’ve been a good thing. So I went up there and learned about it for myself and now I sit on the Advisory Council for Conservancy, but, I talked to Eddie about gathering and Eddie said, you know what, that’s not his forest and he cannot tell me as a Hawaiian practitioner not to gather, but he would hope that I would do it responsibly. And I told him, I wouldn’t be able to call myself a Hawaiian practitioner if I didn’t do it with *kuleana*, you know what I mean—it’s all my right to gather, but it is also my *kuleana* to gather properly. So...

ME: It's special.

PM: So yeah, I don't feel bad going up there to gather, because I know when I go gather, I'm going to gather with *kuleana*, yeah. And so, you know, part of it—I do teach *lei* classes. In fact, I'm going to Waipao in January to do a lei workshop on the 22nd. We're planning on it, but my *lei* class, is like, I start off with a video from the *Na Ki'i No'eau* series, it features Marie McDonald, it talks about *lei* making, and she's very spiritual, yeah, with her *lei* making. And then I give them a handout, one is from Kamehameha Schools and the other is from—the Kamehameha Schools one shows the proper methods of *lei* making—the proper terms, cause not everything on your head is one *haku lei*, it can be *wili lei po'o*, can be *haku lei po'o*, *hi'i lei po'o*, *ku'i lei po'o*, so I teach them all the proper terms and all the proper styles and then I give them one more handout, it was a combination Lyon Arboretum/Moanalua Gardens Foundation and it's on how to gather properly in the forest. And we talk about how, yeah, it is our right, but it also is your *kuleana* and so we really emphasize that in the *lei*-making class. And then, after that, we actually go into *lei* making. So the actual hands-on *lei*-making part, to me, is the minor part. The major part, is that *kuleana*, you know, the education. And I have no qualms taking somebody up to the forest and showing them how to gather, because my feeling is that they're going to gather anyway, so may as well go up with them and show them how properly, right, yeah.

...

PM: So, I think the Kamakou Preserve and being involved with The Nature Conservancy is a great opportunity to educate. And, you know, I don't only go up there to gather too, I take the kids up to make the classroom alive for them—like, it's one thing to stand up in the classroom and show them a PowerPoint, “these are native plants, this is a *lehua*, this is a happy face spider.” But when we go up there and they turn a leaf over and they see a real happy face spider, it's the “wow” factor I give them, yeah.

ME: Yeah.

PM: And just driving up that road and sliding—whoa! And the dirt, they got to get dirty, they got to eat up there in the forest and feel real hungry, you know, see the clouds whip around Waikolu. Yeah, so, Conservancy has helped me to do that, and, the reason they have helped me to do that is because they want to create better stewards of this land, as I do, and we both feel the same way. And they have the tools and I have the methods, so...

ME: It's a good partnership.

PM: Yeah.

ME: Cool. Do you know any *mo'olelo* or songs or chants associated with Kamakou?

PM: You know, I don't want to say it because I will tell you wrong, but in Cathy Summers' book [*Molokai: A Site Survey*], there's the one legend of Ha'upu and when you go up to the forest, you can see the other side of the island and I think of Ha'upu, you know, and also, you can see Kalaupapa, Mōkapu and Olaka [‘Okala] from up there and all those little islands, they have stories, they all have stories—I can go get Cathy Summers' book and kind of show you where they are and then you know, the sandalwood pit that whole lesson of how the *maka'āinana* were forced to go up and live in the forest in the 1800s, when sandalwood was a big industry. Hawaiians didn't live up in the forests, they lived down, they smart, they lived down by the ocean where it was warm, and they had accessibility to food, and you know, they could grow their crops. Up in the forests cold, muddy and it was so far away, you know, unpredictable, so, they didn't live up there, but during the sandalwood time they were forced to live up there and gather sandalwood and they hated it, so they started pulling out all the *keiki*, so that their children wouldn't have to experience that. It almost caused the complete extinction of sandalwood in Hawai'i, yeah, so that's a sad thing. Have you been up?

ME: Yeah, yeah.

PM: You saw the Mokulua‘iliahi? So, that, to me, is a good reminder of very—it’s a sad time of Hawai‘i’s history, but it’s a good reminder, to us, you know, how to care for the forests. So when that was happening, when they were all up there in the forests, nurturing—not nurturing—gathering the sandalwood, there was nobody down here to take care of and maintain the *lo‘i*, the fishpond, so all of that kind of went into ruin and the whole social structure of Hawai‘i changed, so, you know, that is a *mo‘olelo* that I share all of the time because it’s a lesson, yeah. I’m going to get my book and I’ll come right back

ME: A lot of that Steve has looked at and I’m sure he looked at it and, yeah, that will be in the report.

PM: Good, good. Ok, so all those stories, those are all Moloka‘i stories—everybody knows those stories and then you know peoples personal experiences. When I go up there, I feel like that’s where all the *kūpuna* are. You know, all of those old *lehua* trees, those are the *kūpuna*, those are the first Hawaiians here, yeah.

ME: There’s something so pure about it.

PM: Yes. And, my thing too, you know, the Hawaiians, they were not hunters, because animals came after them, right, the deer was introduced, the pig was introduced, the goats were introduced. The only pigs they had with them were domestic, that they raised right next to their *hale*—and they didn’t eat pig regularly, it was for celebration, special kind of occasion. They ate more fish, more taro kind. So, if you listen to the old chants and stuff, they talk a lot about plants, the *‘ie‘ie*, the *manono*, the *‘ōlapa*, just like when you dance *hula*, the compare the *hula* dancer to *‘ōlapa*. You know why they do that? When you go up to the forest, just the slightest, slightest breeze will make the *‘ōlapa* shimmer and it’s beautiful, it’s graceful, so when you dance *hula* and you’ve achieved a certain status of dancing, they say you *‘ōlapa* because you’ve reached that high level of grace, yeah, and that’s where it comes from, the *‘ōlapa*, yeah. So, if no more *‘ōlapa* anymore, how is anybody to understand that if they’ve never—if you cannot go up there and experience that, how are you supposed to understand that, you know what I’m saying?

ME: Yeah.

PM: Yeah, and then when you honor Laka—I’m just using *hula* as an example—when you honor Laka, what do you take? You take *palapalai*, you take *‘ie‘ie* and it’s very difficult to practice our culture without those elements because we’re so intertwined with nature, yeah. Like all of our reference in our *oli* and stuff are back to nature. Even for everyday gathering, you know like the *wana* is ready, when the *hīnano* is blooming, you know, that was their indicators, that was their direction—that’s there guide, so, what if never have anymore *hala* trees, like how you know when to go gather the *wana*, yeah.

ME: Yeah, yeah, the interconnectedness.

PM: That whole relationship between land and sea, between ocean and *kai*—I mean *kai* and the land, the *‘āina*. The forest holds all of that—the *‘ie‘ie*, the basket weaving, the, the *kūpuna* that used to go up there to get the birds to make all the cloaks, the medicines, the *laukahi* that came from up there. Of course, the Hawaiians were so brilliant that they noticed the same properties in the introduced plants so they were able—as their native plants were dwindling—they were able to make the connection between the introduced ones and they just substituted. But you know, if you listen to all the old chants and the—I was going to say especially in *hula*—but, we’re oral history, yeah, so all the chants and everything, they all make reference to things in nature, and a lot of those things are found up in that forest, so, to me, like, that forest is like a living culture for us and a way for us to get connected. Just like when you go ocean you can get connected to the *hīhīmanu*, you know, the *puhi*, and all those *‘ōlelo no‘eau* and stuff, you get visual and you can understand. And the *‘ēkaha* in the ocean and then you go up here’s the

'ēkaha, wāwae 'iole—there's the *wāwae 'iole*, you know, how can you, you know, our whole culture, to me, balances on us being good stewards, you know... You cannot go Safeway look for *'ie'ie* you know [*laughs*].

ME: No [*laughs*]. And do you know of any traditional sites which are or were located up there? Either historic, or archaeological...

PM: Well, the trail, yeah. You know the boardwalk, when you get to the lookout Pelekunu the trail continues on the ridge into Pelekunu, right to where Joyce Kainoa lives. Those are ancient trails, plenty ancient trails. Of course, the other way, Makakupa'ia, this way, Makakupa'ia Road, used to be a trail that went up and all this, used to be all dryland forest, of course, I think the only good stand of dryland forest is in Lana'i at Kanepu'u but all of our dryland forest has been beaten down to death by the cattle and the deer and the goat, and also the first Hawaiians when they came, they made first impact they had to clear for the crops, yeah. But theirs was like small impact when compared to what the introduction of animal did. So this Makakupa'ia Road is an ancient trail actually and this went all through dryland forest and the dry land forest held things like *kōko 'olau*, which is good medicine and *'a'ali'i* too, which is good medicine. And the Hawaiian proverbs, again, the *'ōlelo no 'eau* refers to the *'a'ali'i* you know, "stand steadfast in the wind like the *'a'ali'i*," well, I can understand that, but when I see the *'a'ali'i* in the wind, I can understand it more, yeah. So that kind of thing, you know.

And then also, you don't have to know where the historical sites are, you can just go and make that relationship, like, "oh, there's *maile* growing here, there's a good stand of *maile* here, so, I bet you this is where they came to gather," you know or, "there's a lot of *māmaki* here, this is where they come for their tea." So you know, you can make that relationship.

ME: That people still go up, and there's that continuation of that.

PM: Oh, yeah, and you know, where does that knowledge come from, it just gets handed down, handed down, handed down, yeah.

ME: Have you seen any archaeological sites up there, when you giving tours and things?

PM: Only the *'iliahi*, but I'm sure there's—you know, like I said, I don't think people lived up there, so much as gathered, the living, made more sense to come down. There might have been *ahu* up there, I'm sure when you go up there, you give thanks, I still do always say a little *pule* before I gather and always a little *pule* after, you know, but—

ME: I don't think they found much up there.

PM: No, because they didn't live up there, they didn't, but to me, the archaeological evidence up there, to know that we did cultural practice is the old *'ōhia* trees, the *'apapane*, the *'amakihi*, the *'i'iwi*, that's all—those are the archaeological evidence. If you know they had those birds up there, you know that the bird people went up there, you know, you know if you get *māmaki* up there, you know the *kāhuna lā'au lapa'au* went up there, you know the *kumu hula* went up there to get all the *'ie'ie*, to get all the *palapalai*, so to me, that's your evidence of cultural practice, the evidence of the plants themselves. I mean, how much more evidence do you need [*laughs*].

ME: [*laughs*] Not much.

PM: Not much, because, just because they never built an *ahu* up there doesn't mean they didn't go up there. The fact that those things exist up there is the very reason why people would have gone up there, that's the evidence to me.

ME: That there's not, there weren't—like you just said, since there wasn't people living up there, and all the plants and animals were up there—it's likely they went up there, too. And, did you ever hear of burials up there.

PM: No, and you know, from what I understand, well—caves, so...but you know, the thing is—the thing with burial up there, they're going to bury them so you cannot find 'em. So, if you found them, it would kind of defeat the purpose. So just because we haven't found them doesn't mean no more—it just means they did it well, to me, you know, you kind of have to think different. To me, the lack of evidence means they did it well and the fact that we cannot see their footprint means that they were good stewards, you know, yeah.

ME: It's so true.

PM: But, I'm sure there's probably hidden bones up there, yeah. But like I said, most of the people lived below the forest. I know up at places like Mauna Kea, they went to gather the adze. It's a long ways, it's up there, so, they ain't going come up one day and come down—so go up for a couple days so got evidence of 'opihi shell and things like that that they took up with them and then they got the sleeping, sleeping quarters. You ever saw the sleeping quarters up at Hualalai?

ME: Mmm mmm [no].

PM: They are walls that go up about this high and go like this and then like this, so you would go inside and sleep inside there and maybe cover with a *kapa* or something and you would be protected from the wind and you would stay warm. So there's lots of those everywhere, and 'opihi shells 'cause they had to go camp up there 'cause it's so damn far. But, you know, Kamakou, you might not have to camp, but if you camp, maybe one or two days, but, you know, not like Mauna Kea and Hualalai. Yeah. And if you went up there, you could probably just build it out of sticks and stuff, but, you know, up Hualalai, no more trees, and you way the hell up there, get plenty stone, yeah.

ME: You were saying, you going up there, and you being in the docent training program, and doing your own research from the Summers' book [*Molokai: A Site Survey*], but, how else did you acquire knowledge of this area, just from listening in on stories...

PM: From going on hikes with different people like—one of the people, one of the people I love going up with is Dr. Sam Gon. You know, Dr. Sam Gon, he's the kind, ok, we're hiking around and he'll go, "ok, this is a native *laua'e*, in fact," then he'll go, "in fact, this is the *laua'e*, you know from the chant, you know the one that goes like—" and then he'll do the whole chant, you know, he'll do the whole chant, and, right there, to me that's evidence, you know, somebody wrote this chant about this *laua'e*, they must've been up here, you know, they must have actually used it, or saw it, or their *kupuna* went share with them. So, then he'll tell the whole chant and that was like, all day, all day, "oh, this is the so and so, this is the chant that goes like—" and he would do the whole chant again. So, of course I don't remember all of those chants, but, I experienced that chant and I saw the *laua'e* and I know it exists and I know that the chant exists, yeah.

ME: He's such a smart guy, he's so good.

PM: And then, you know, I also refer to Isabella Abbott and also to Beatrice Krauss who talks about traditional uses of Hawaiian plants and refers to all of those plants like the *kōlea*, I think in Isabella's book, or was it Beatrice's. My books are all buss' up because I take them up there with me, they all red dirt on top, the pages are water-marked, but, you know when I go up there, I like to teach the kids—I no like tell them that, "oh, this is *kōlea*,, this is this." I like tell them that, "this is *kōlea*, and they used it for this" because then it becomes important, because they actually used it for something. So the *kōlea*, is one out of six woods, I think, to use for the gunnels of the canoe. And just from that reference, you knew that it was a hard wood 'cause the gunnel of the canoe is where you pull your net over, you climb

over—so get all buss’ up, yeah. It had to be a hard wood. So, yeah, I learned a lot from reading books from notable people like Isabella Abbott and Beatrice Krauss and going on hikes with knowledgeable people like Sam Gon, and, yeah.

ME: How had Kamakou changed over the course of your lifetime, if you think it changed at all.

PM: I think that it’s probably being better cared for now, and not because the local people are not good caretakers, just because I think we know more now, about things cultural and about things native. You know, when I was going to school, we learned, you know, King Kamehameha when throw all the guys off the Pali, yeah, but we never learned anything about our own king, our island history and I knew what a dogwood--

ME: What is that?

PM: It’s one of the flowers for one of the mainland states, but I never knew what an ‘*ōlapa* was, or a *manono*, you know what I’m saying?

ME: Yeah, yeah, yeah.

PM: And I learned about Lewis and Clark before I learned about our Polynesian migration, so how can we be good stewards if I go up with them and I don’t know how one *manono* is different from one *kiawe*, you know what I mean, I going buss’ em, treat ‘em all the same, “ah, rubbish,” you know. So, I think now, just because more knowledge and education going on, and because of that, Kamakou is probably in a better position now than ever before to be cared for is what I’m thinking.

ME: And do you think the current management of Kamakou affects a place or places of cultural significance, or access to a place or places of cultural significance?

PM: You know, like I said, we’re particularly talking about The Nature Conservancy and I told you I talked to Eddie about that, and Eddie doesn’t ever deny anyone gathering rights, but it is his hope, like I said, that they will go up and gather responsibly, because it’s a lot of work, caring for a place like that and, so, I think, if anything, it improves the chance for cultural sites to be maintained, or cared for, or, you know. Just because, you know, if people know you’re watching, they’re more careful, yeah.

ME: Yeah. Are you aware of any cultural concerns the community might have related to cultural practices within the area?

PM: I think the biggest, what do you call those, not white lies—the biggest, misconception with the local people is that Conservancy keeps them out, you know, the fences they build are to keep the animals out, not people. And the fences they build are not to keep you out of the forest, but to bring the forest back. So, I think, growing up, if you’re anybody growing up on Molokai, the first fences that, the fences we were used to when we were growing up, were to keep us out. You know, when I was growing up on Moloka‘i, if you going west end beach, you had to go through about five gates. And before you could go through the gates, you had to get permission, you actually had to get one key. So, if you were lucky enough to score the key, you could go to the beach, like I said, after you go through about five gates. So when ‘Ahahui Alaloa got organized, and they started marching for gathering rights on the west end and the rights to have access to those beaches, it was to open up those gates and to take down the fences, and now we putting fences back up, so, you know, we have been raised with that notion that fences are bad and gates are bad and we want to get rid of them. So when you’re putting up a fence up at Kawela to protect the forest from the deer or the goat, people see that as a bad thing, not a good thing because of our experience. So, it’s all about education and I think, I think the relationship between Conservancy and the local people is just misconception and from growing up in a place the growing up before, fences and gates used to be a bad thing, yeah.

ME: Understandable.

PM: And Nature Conservancy, I think, especially, you know, Molokai was the first place to have a preserve. Kamakou is the first Nature Conservancy Preserve in Hawai'i. And all the other Nature Conservancy preserves are modeled after ours, so, everything that we do, people watch and learn after us and model themselves after us. Well, what I was going to say was that all the things that we do, at least from my perception, they try to do it cultural based, and they do have an advisory council made up of Molokai people like myself, Aunty Kau'i Madeira who works for Alu Like who, also, her husband is a contractor, so, it's not all one sided, it's a nice mixture of people who have different concerns, yeah.

ME: How long have they had the [Advisory] Council for, a while?

PM: A while. And even our earth day, our earth day used to be at Kaunakakai School, they used to have a few people there, organizations giving out their brochures and stuff and we'd give out plants and we got together, myself and Ed [Misaki] and some other people and said, you know, let's make Earth Day a big deal, now, have you been?

ME: No, no, no.

PM: It's on a Friday night, there's food vendors, so the local people make out you know on the selling food, there's entertainment and most of it just comes from Molokai and it's all on the outside at Mitchell Pau'ole—it's on the outside—but on the inside, and we try to have everything cultural based, and on the inside it is all cultural practitioners like the poi makers showing the relationship between them and the 'āina, we have, we even have *kumu hula* come and display their *leis* and how *hula* is associated with the 'āina, we have the Conservancy showing their work, we have my organization [Moanalua Gardens Foundation] showing my work, whatever we're working on that year, last year it was streams. So, yeah, all of it is 'āina based and cultural based and we had 1,500 people attend, it's a huge event, it's packed.

ME: That's half the island [laughs]!

PM: Yeah, it's packed [laughs]. It's every year, imagine that, Earth Day one of the biggest events of the year, people coming out to learn about the 'āina, learning how they can be better stewards.

ME: That's so good, that's really, really good.

PM: Yeah. And Conservancy is the lead organization on this, so.

ME: And, do you know of any *kūpuna*, *kama'āina*, or cultural/lineal descendants of the area that might be willing to share their *mana'o*.

PM: You know, Aunty Anna Lou Arakaki might be able to share her *mana'o*. You know, her mother was Aunty Harriet Ne who did the whole *Tales of Moloka'i* and was a *kumu hula* and knew many *hula* from Pelekunu and I spoke with Aunty Analu and she says she's never been up to Kamakou, so, Eddie and I, we're planning to take her, yeah, I want to take her with Aunty Vanda Hanakahi. I want to take her at least to the Waikolu Lookout before she *make*. But can you imagine hearing all those stories and learning all those *hula*, that she can finally go up and see these, yeah. So, Aunty Anna Lou, you know the Joao family, Joey Joao and all those guys there, they grew up hunting and walking along, all along the forest, I know Joey's younger brother, Cheyenne worked up there. A lot of the old-timers are gone already, but they might have passed some stuff down to their grandchildren or children that's why I'm talking about the Joao family. But I'm thinking, you know like, a lot of times, I myself, when I was growing up, what I thought was Hawaiian, or traditional, was actually like our own Molokai traditional, or you know, like, deer hunting, is traditional on Molokai, but it's not a cultural thing, it's a Molokai traditional thing, but it's not cultural—Hawaiians didn't hunt.

ME: [laughs] There were no goats at that time.

PM: Well and they weren't going traipsing along that forest along the mountains in the mud in the cold, they had domestic pigs, you raise them right here by the *hale* and you kill 'em and eat 'em. You don't need go walk around and chase 'em all over the mountain, you know. So, there's a lot of confusion, I think between what is cultural and what is traditional, yeah and so when you talk to local people and you ask them for cultural knowledge, a lot of what their knowledge is to me is Moloka'i traditions, but not necessarily cultural traditions, yeah. Aunty Vanda Hanakahi, you should talk to her, because she, you know, a lot of people question Kumu John Ka'imikaua's knowledge and how he acquired it because he said he was—do you know the story?

ME: No.

PM: He said he was looking for a certain kind of ti leaf in Honolulu, I think it was in the 'Aiea area—I'm not exactly sure at how the story goes, but then he came upon this old woman who had the ti leaf and said he was waiting for him and she passed along to him all the *mo'olelo* and all the chants on Molokai and so, he in turn taught these to Aunty Vanda Hanakahi, who now carries on his, so, you might want to talk to her and her sister, Opu'ulani Albino, only because they 'ōlelo Hawai'i and understand all of those old chants, I can hear them and unless he told me, yeah, that's what it was, I wouldn't be able to understand it, but they do, so. And all of the old stories and everything are in the chants, right, yeah, 'cause we're an oral society, that's how we passed it on. So, they have command of the language and they understand all of those chants that John taught them and Vanda—unreal how she retained everything, like, she can just whip 'em out.

ME: It keeps you smart, when you have to memorize things, it keeps you—

PM: Well, you know, she grew up—Hawaiian first language, English second language with her *kupuna*, so I think when you already know the language, it's easier for you to learn the chant. But when you're trying to learn the language, and the chant at the same time—

...

ME: Well, that's all my questions, but if have anything else to add—thank you so much. If you have anything else you want to share.

PM: I don't know, but, you know, I always tell people, Kamakou took—do you know that it was every 10,000 years that a native plant made it successfully here.

ME: Oh my gosh.

PM: Every 10,000 years, and when you go up and see all those natives up in Kamakou and you add up all of those years, it's just amazing to me how that forest was built. And the native forests is the best watershed on any island because of the way that it is layered, you know and so, it's the best water-gathering place in all of Hawai'i are native forests, 'cause, you know, you have your canopy, it'll catch anything going by, any cloud, any rain, any fog, anything wet, it'll capture. And then it goes down to the next one, the next level and that one takes it down to the next, and to the next and then finally to the moss and to the little things and those things hold the water and allow time for things to percolate through our porous rocks and build our water table. If you have something like a eucalyptus forest, or a pine forest, they have the canopy and nothing else, you just have these tall trees, so they gather water, the water comes out and hits the bare ground because nothing grows under these trees 'cause they're toxic, so now it hits the bare ground, doesn't have time to sit and percolate, it rolls and runs off, and as it runs off, it carries the *lepo* with it, so, it's not good forests. So, the Hawaiian forests, if anything, you'd want to protect it 'cause you like drink water, right [laughs], 'cause you need water to live, right. For anything, for that reason alone, water, yeah, and they got all the 'ōlelo no'eau, yeah, that talks about

how the rain will always follow the forests—all that *‘ōlelo no‘eau* that associates water with the forests. The Hawaiians knew, they knew, it was like, “duh, hello.” I think we make everything real complicated. They could look at things and see, “yes.”

ME: Everything had purpose.

PM: And they never made excuses, like, we make excuses like, “oh, we can cut down this section because—,” but no, you cannot, you cannot. You know, but we want to do it, so we make excuses and with the Hawaiians, it was like, “no, you cannot, *pau*, leave ‘em alone.”

ME: Yeah, he’s [Steve Eminger] going through a lot of the newspaper sources which talk about the chants and Kamakou. I’ll make sure you get a copy of the report.

PM: Oh yes, thank you, because I can use it when I take the kids up, but you know, yeah, when you think about how long it takes to build a native Hawaiian forest and then the wonderful things that it does for us—that alone, you know, yeah. So, when I take the kids up there, I just, you know my hope is that they’ll be in awe of it and they’ll be inspired to be good stewards. I know one boy, we went up there, we went to Waikolu and the clouds were whipping into the lookout area—you been up there haven’t you, and he went, “ho, is this heaven?” I was like, “oh, for some people, yeah.”

ME: So you still get to go up.

PM: Yeah, I just went, not too long ago, Dave and I went up, well, we went to go gather, we have our favorite spots and I always say, “ok, we going up there, we just gonna go right over here and make fast ‘cause we got to come down. And when I get up there, I’m like, I no like go down, and, you know, we just *mili*, take our time and enjoy.

ME: It’s a trip to go up, like you’re saying, it’s such an experience the ascent as they say, it’s really special, and just to see the different, coming from down here being so dry and red and—

PM: Even going up that road, Makakupa‘ia Road it’s all rocks and barren, but all of a sudden sometimes you’ll see an *‘a‘ali‘i* or a *kōko‘olau* and you know what could be and what was and it’s still even beautiful, even without and imagine with, it would be more beautiful and, you know, just the view, and riding up and...wow, there’s this one place we went up in Kamakou and there were all those snails,

ME: Wow.

PM: Climbing all over the *lehua*—it made me cry, I was just like, “oh my god, oh my god.”

ME: Have you seen more of the snails come back, you personally?

PM: I haven’t visited that place in a while, but I’m thinking with, with more predator control, it’s only logical that you would have more natives, you know, they cannot help but survive, right, because of lack of predators and there’s more predator control going on than ever before, so, I would hope they’re making a comeback. I don’t go to that area very often, I go leave them alone and it’s one place I do not show people.

ME: I was going to say, I bet, it’s special.

PM: That was so cool man. I was like, “oh my god.”

ME: Are those the ones that they say can sing that they’re singing snails.

PM: Yeah, some people say they are singing snails, but I actually think it's—when they're in the trees and then wind goes into the shell a certain way and it makes a sound, that's what I think, I'm thinking that, yeah.

ME: So cool.

PM: You ever read David Eyer's book, it just came out recently, a couple years ago, maybe five years, I think it's David Eyer, but he has a little bit of everything in his book and he talks about the snails and he interviews some Punahou students from long, long time ago, you know, back in the day when Punahou was first built and they used to—that was one of their favorite things, these Punahou students to go up in the forest and go gather these snails and they would gather them by the buckets, by buckets—

ME: I'm sure they had friends from Kamehameha who were there, too [laughs].

PM: Tens of thousands of snails, and they talk about it, it was one of their favorite past-times.

ME: Oh, bad, bad, bad, bad, doh!

PM: I remember cutting down pine trees when I went to Kamehameha, Mrs. Gladys Brandt would take me to her office and I wish I knew about invasive species then, 'cause I could've said, "well you know Auntie Gladys, it's an invasive species and when I cut down the pine tree it makes room for another lehua"—I could've been very defensive.

ME: It's a lot better than picking the native snails [laughs]. Oh wait, I don't think I got your birth date.

PM: Oh, 6-15-52.

ME: I think that's it.

PM: Oh, and the other thing about Kamakou too, is, that, it is where our watershed is located and so when we care for Kamakou, again, we're caring for our reef, yeah, so there's that whole *mauka-makai* connection, yeah. But there is so many lessons to be learned and so many lessons to be taught and so much culture to be practiced up there, it's just—yeah.

ME: Does the *Hula Piko* [Festival] go up there?

PM: You know this year, we did take some members of John's *hālau* up and of course they know what *maile* looks like and *palapalai* and we showed them more, we showed them different trees and the uses and we talked to them about the watershed and the role that the watershed and you could see all these lights popping on. And then, and then, they started making connection with some of the plants and chants and names we had given them and they were moved to tears and at the end of the day, when we were back at Waikolu Lookout to you know, finish up our day and *hele*, one of the girls asked if she could do a chant and then one of the other members wen' *hula* and you know, I caught some of the words, you know, I understand a little to know it was about Laka and the wonderful things and it was amazing and everybody was moved to tears. And even, and even when they asked if they could have some *maile* and '*ōlapa* for the mound, I think in the past they would've, like, wanted a lot, but when we asked, "well, how much do you need?" and they said, "just a little bit, just enough." So their whole mindset changed, yeah. And then when Eddie [Misaki] actually gave it to them, "oh no, that's too much, you never had to do this," you know, so a whole new appreciation, so I think education is the key, yeah.

ME: Who is that, Eddie?

PM: Eddie Misaki.

ME: And he's the Director?

PM: He's the Director, he's the first—like I said, Kamakou is the first preserve, so he's the first Preserve director in Hawai'i, and you know, local boy. He started in his father's garage with his father's Jeep [*laughs*]. That's the only vehicle they had, yeah.

ME: One more question, when we went up, I noticed there was so much ginger around.

PM: Yeah, we try to get it out.

ME: You know, it's beautiful and it smells great, but you can see how thick it gets too.

PM: Yeah, it's a big problem and we've taken school kids up there and we want to show them how scary it is for the natives to introduce invasives that we have them pull ginger out because it is a bitch. It's like pulling carpet out, it's like pulling carpet out that's like this thick and then the kids, I mean, when they have to pull ginger out and they see, they're like, "oh my god, oh my god." One girl, she was almost to tears, she was like—we were pulling ginger out and it was getting to the end of the day and I said, "come on, you know, it's time for us to go," and, "oh no, aunty, wait, look this *lehua* going get choked if we leave 'em, and if we don't take this out today, not going to grow," and she was crying already and I said, "you know, babe, we cannot save everything in one day," and she said, "But we can save this one, come on, aunty, help me!"

ME: That's so sweet.

PM: Yeah, and then prior to that, you know, in the beginning of the day, she was the one that was like, "why do we have to be here," she was being a diva and you know, "oh, the ginger is so beautiful," but by the end of the day, a whole different song, yeah.

ME: Yeah, that was one of those things, it smells good, but you know something's wrong, once you know ginger isn't supposed to be there.

PM: Oh, me too, I love ginger, I used to go every summer, go up and fill my whole house with ginger, every vase in my house, I fill 'em up with ginger, so when I come home from work, you open the door, "BAM!" And when we go Wailau, you know the long skinny fern, I go *haku* and I put all the ginger and we all come home with ginger *lei po'o*.

ME: Gorgeous. Did you ever go up with your mom, up there?

PM: You know, I don't remember, we might have gone up with *'ohana* kind, when we were little, we just—we just go ride truck up to the forest. You know, one of the wonderful things that happened this past July, we had family reunion and, um, the next generation after me planned it, and they wanted it to be more, experiential, you know, so, they were thinking, what can we do, you know, we get *'ohana* on the mainland, yeah, like, my mom had one sister and one brother that lived on the mainland, and then we have *'ohana* off-island, O'ahu, Big Island, so they were all coming home. So they said, "oh, we like know more about Molokai," and so we took them paddle canoe, we took them—one of the things that they asked me, "can you do something that you do with your kids." You know I said, "let's go take them up the forest 'cause we all have four-wheel drive truck and they can all ride in the back, you know, and so we went up to the forest and I said, "Look, I'm going teach you guys, just like I teach my fourth-graders." So we did that and, wow, they loved it, even the ones that live here, on Molokai, loved it. They go, "aw, we never know that, for real? this native?" They go, "what about the *kalo*?" I said, "that's not native." "What about the *kukui*?" "That's not native," they go, "haah?" So it was really cool to turn them on, yeah.

ME: And which—what *'ohana* name is that?

PM: That's the Rawlins, Pe'elua, Bishaw.

ME: Pe'elua?

PM: Hmm hmm [yes]. So you know Kaiakea? Steve knows Kaiakea. If you study Molokai, you know Kaiakea.

SE: That's the man from kind of long time ago.

PM: Long time ago, and so he had, like, about three wives and when you read Cathy Summers' book, he was a prominent Molokai—he was involved with astronomy, farming—and when Kamehameha came here, he prepared for Kamehameha.

SE: Oh, he was during Kamehameha's era too, they overlapped with Kamehameha?

PM: Yeah.

SE: Interesting.

PM: So Kaiakea, he had three wives and one of the wives went born—one of his sons was Pe'elua, you know Pu'u Pe'elua?

SE: Yeah, yeah.

PM: And then Pe'elua is our 'ohana yeah, 'cause Pe'elua, one of Pe'elua's wives was Luahine, from Maui, Kahekili's 'ohana, so that's that whole Kahekili line and then Luahine, went *hānau* Kama'iopio, that's Kaili'ohē's sister, you know *Tales of the Night Rainbow*? And Kama'i went *hānau* Keleana. And Keleana wen' *hānau* Kaneala'i and Kaneala'i wen' *hānau* Mary and Mary wen' *hānau* 'o Penny.

SE: Unreal.

ME: Wow.

PM: So that's our 'ohana over here, yeah.

SE: Unreal. That's cool you have it right on down the line.

PM: Yeah, I can go a little more back, it goes back to Kekaulike from Kaua'i that married Keawe, yeah.

SE: Keawe Big Island?

PM: Yeah, 'cause she had several husbands and Keawe was one of 'em and then she had a connection to Molokai and that whole Kaiakea thing comes down from Kekaulike so there's 'ohana in Kaua'i, too, as well.

SE: I think I've read about Kaiakea in the Hawaiian newspapers, I've seen references.

PM: He's a notable Molokai person because he was involved in a lot of things, yeah, and his daughter was Makaweliweli, yeah. So, she wen' go *hānai* the—actually he had the Kalaipalaoa gods, he cared for them, yeah, and then after he *make*, Makaweliweli took care of them, but she wen' go build *hale* for them, and, I mean, she practiced. And, so our 'ohana comes from a line of like healing *kahuna*. So my mother remembers her grandma—her grandmother was Keleana, her mother wrote *Kuhio Bay*, the song, [sings] “*A ohe lua e like ai, me ka nani a me ka nani a'o,*” well, she wrote that song, anyway, I

imagine her on the steamer, leaving, looking back to Hilo and being inspired as she writes that song. But she was an entertainer and also, I didn't know—until my later years that she was also a healing *kahuna*, so she lived in Waikiki in the days of the fishponds and the marshes and when Makee Island was actually an island and she took my mother—my mother was her *punahele* and she took my mother to come live with her in Waikiki, so my mother lived with her until she was about nine years old, which is really funny because my grandmother, Keleana, married Alexander Bishaw and they were all Catholic, so they used to all go to St. Augustine, but Mama and Keleana would get on the trolley and go to Kaumakapili every Sunday [*laughs*]. But my mother said they lived on Paoakalani Street—on Lemon Street, a big house on the corner, Uncle Joe Bishaw, her brother was one of the original Waikiki Beach Boys, but my mom said they had this room that they were not allowed to go into and a lot of people would come by the house and she would take them in there where she would do her healing.

Hello...oh, excuse me.

[*Penny receives phone call, recording stops*]

Appendix I: Interview with Joey Joao

Interview with Mr. Joey Joao

Mina Elison [ME]: Ok, good morning, it is Wednesday, January 26th, 10:21 and we are at Ranch Camp in Kaunakakai and I'm with Joey Joao and this is Mina Elison. And have you read the agreement to participate?

Joey Joao [JJ]: Yeah.

ME: And do you have any questions before we start?

JJ: No.

ME: Ok, and, will you please sign the consent form. Here you go. And while you are doing that, I'll explain the purpose of the interview is to—the purpose of the cultural impact assessment is to synthesize background research with information gathered from the interview to identify cultural resources, practices and beliefs associated with the Kamakou area and to identify potential impacts to these resources and recommendations to mitigate impact to these resources. So, thank you again for coming up here, I know you are super busy, but, thank you. To start, can you please tell us a little bit about yourself, your full name, when/where you were born, where you grew up and where you went to school.

JJ: I'm Joseph Joao, III, I was raised here on Molokai, I was born in Ho'olehua, at the hospital that is no longer there. I was raised at Kamiloloa for a little while, then raised at Kalama'ula for the rest of my teenage years up to till I got married, I guess. Currently now I run my own business, I run Hawaiian Kine Hunting I lease the lands from Molokai Ranch which I used to work for like, shucks, 15 years, 12 years off and on, I guess, maybe, I guess I worked for them maybe over 20 years total. Family been on the ranch for I think five generations. So I run my business, I like hunting, I like fishing.

ME: Nice.

JJ: What else you like know [*laughs*]?

ME: Birthdate?

JJ: Oh, good luck numbers, seven, eleven, fifty-five, should go Vegas.

ME: [*laughs*] So who was your first relative that was up there?

JJ: My first relative up there was my great great-grand-dad, Manuel Joao, um, they was brought in from the Cooke family, from Portugal for do the *paniolo* for doing fencing and cattle work, this was in the early 1900s I guess, and then he, he brought up all of his sons, my grandpa them and everybody else and they all married Hawaiians when they came, my grand-dad left his Portuguese wife and married one beautiful Hawaiian lady, I guess and they came breed us, so you get us half-breeds.

ME: [*laughs*] Smart guy, smart guy, wow.

JJ: In fact, my whole family lived on the Ranch. My great grand-dad lived at Mo'omomi, my grandmother and my grand-dad, my grandma was pure Hawaiian, she lived in Pu'unana, down inside that forest, my dad was raised and my grand-dad lived at Kaluakoi, where they have the, right now, is the restaurant area that was the house, yeah, their house used to be there.

ME: Wow.

JJ: So, we've been around, my great-grand-dad, since we talking—we going to be talking about Kamakou, my great-grand-dad built the intake up towards Kamakou, on the flats, by the Seven Falls, the intake across from the Kamakou area, they sliced off the gulch, it goes down the gulch you know right across on top to the flats, they used that to go across. So, they've been all around, up in the Kawela area, you know where ever the Ranch had some kind of property, they was around doing work so, yeah.

ME: Do you know what part of Portugal they were from?

JJ: I don't know—where the friggin' "Pordagees" come from [*laughs*].

ME: [*laughs*] How old was he when he came, you think?

JJ: On that, I don't know, he was, he was an adult already cause he had all his kids with him already—not all the kids, but some were the kids he got remarried to my, one other Hawaiian lady here and got some more kids.

ME: And so your great-grandma, where was she from?

JJ: The Big Island. My great-grandma and my grandma all from the—well they moved from Big Island to Molokai.

ME: What part?

JJ: No ask me.

ME: Ok [*laughs*].

JJ: I don't look into my heritage tree.

ME: You know her last name?

JJ: All I know was there was Koa—the last name was Koa. I don't know if it was Koa-something, Koa-this or what but we get the extensive background on our family which is, yeah, I mean.

ME: For us, it's our aunty, she the keeper of our genealogy.

JJ: Yup.

ME: And, um, ok, so you personally became familiar with Kamakou through your work, would you go up there as a youngster too with all your family, and with your '*ohana*'?

JJ: We used to go up there a lot, 'cause, like I said, my family worked the Ranch. My Uncle Harry was the waterman for the Ranch and he took care of the water system up there. So on weekends, when we like go hunt or just cruise over there, go get stuffs from the mountain, go gather stuff, we just call him up and he take us up there, drop us off and we'd just go crazy on the mountain, yeah. Find all kinds of goodies, plus when it's plum season, raid all the plum trees, look for watercress, the kind *pepeiao*. We went up, it wasn't like—steady going up, but we went up and we did things, pick up *maile* lei, when get parties go up and gather stuff, you know, hunt pig and stuff. But, I got familiar with the place when we started working with the Ranch—and we did the pipeline, when we had to re-do the whole pipeline, so, we did it from the Kawela Intake all the way down, you know, down towards the, what's that—where the Boy Scout Camp used to be, the forest Boy Scout Camp, we went all the way across.

ME: Wow.

JJ: So, we ran all around the mountain and did all our stuff up there.

ME: Was it a water pipe?

JJ: It was a—that was a 8-inch waterline—it was a pretty good size waterline, we took out the—we put it next to the old waterline that was there, and the old waterline that was there was made out of asbestos.

ME: Oh!

JJ: Those days asbestos was used for a lot of things and I never even know what it even was until years after we started working on it, it was done. Somebody said, “Oh, what you guys doing? You guys, cut that up?” “Yeah.” “It’s asbestos.” We didn’t know what asbestos was, Jesus Christ. But lucky it was wet so, it didn’t powder up as bad as it did, yeah, so.

ME: So you were taking out the other pipe—

JJ: We basically left it there, but when we used to fix ‘em, we would have to cut it up all the time. The roots grow inside the pipe from the side, ‘cause the asbestos is almost cardboard, yeah, it’s soft when it gets wet. As long as you don’t bother it, it will stay firm yeah. It’s easy to break so if a tree falls down, it breaks so we would have to fix them all the time. So, basically we would have to fix, fix, fix and they finally said, “put in one new line.” So we took the pipes in from Kawela all the way and basically summertime kids was working with us, I was just young, doing that, I was in my twenties doing that and we used to hire some ranch kids in the summertime and they used to help us take the pipes in.

ME: How deep were those pipes going?

JJ: It’s just sitting right on the ground.

ME: Oh, ok. That’s good.

JJ: You can go up and see them today, they’re right on the ground.

ME: That’s good, you don’t have to do any digging. Um, nice. So would you—when it was the Ranch, could you hunt and things there too?

JJ: It was Ranch lands up to a point and then the State usually controlling the hunting and stuff inside there, so it was basically the State, but, we come from Molokai, so, you hunt whenever you like and whatever you catch. I run a business now and I watch who goes in and out, but, it was the same thing when I was growing up, we hunted whenever we like, I mean, poaching was—we never used that word for it, it was just gathering.

ME: Yeah, yeah, yeah.

JJ: But you know, today’s kids is different from when we was doing it—we did it for a purpose, we were doing it for people who no more food, for people who needed food, for parties and stuff. Today they just going out for racks and they leaving—today, our own island people just leaving the carcasses back and just taking the heads and me, I calling that stupid, that. The generations got screwed up some place, and I blame our generation for letting it happen ‘cause we not teaching our kids the proper way and then the next generation—they get more stupid, yeah, each time the generation gets stupider, and stupider. I guess it’s like the world today, everything get screwed up—same thing, same thing.

ME: You can’t expect the knowledge to get passed down through the air.

JJ: Well, everybody is so into—everybody is so into, I guess maybe, trying to do the culture, you know, I see everybody trying to be culture but they too involved within themselves and with what they're looking at and they not looking at the over and at everybody else—you know the kids, you know every time, the kids, go teach the kids. How can you teach the kids the right way when you not paying attention and maybe you doing 'em the wrong way. You not asking permission. You know, to me, yes, we Hawaiians, this was our land, was, was, today they still think it's ours. People bought 'em and they get the *pepa* that say they own 'em—even though it was maybe stolen, it was traded off for, you know, whatever it was that everybody uses, “Oh yeah, they used to trade 'em off for booze,” I say “Yeah right, whatever.” Hawaiians was giving people, yeah, so they give a lot. They like the person, they give 'em, so it is not our land anymore. But, if we ask permission to use the land, I think people would let us use their land. If you ask permission and do 'em the right way. So when you teach the kids how to just do whatever you like 'cause this is our land, the kids have no respect for nobody else and I think that's where we went wrong, you know. Do—we like our land, do 'em the right way, teach our kids the right way, to have respect and that's what our *kūpuna* had teach us from day one—have respect—respect for one another, respect for our land. When you *kāpulu* the land, you know, me I get another—we get blessed pretty good because I no *kāpulu* the place—I take care, you got to take care, I do one business, but I take care, you know I take care of what I do, I no make any kine, I no throw the rubbish any kine, you know, you just, you take enough, you no need take too much, yeah, enough is enough. You cannot overwhelm—your freezer cannot hold all the meat or the fish, it's what people tell you, if you need to put stuff in the freezer, it means you don't need 'em.

ME: Yeah.

JJ: You don't need 'em, give 'em to somebody else, that's what I was learned.

ME: That's smart. And so where do you hunt now, you take people everywhere?

JJ: Basically, I take 'em on the Ranch on the west side of Molokai, at Molokai Ranch, I also do some pig hunting on the east side on private land where people let us go inside. But it's a business, it's what I do and, you know, and that's what I like doing. But what I do is teach them how we do here on our island, how we hunt here, how we gather here not just—everything is not about one big rack. You shoot one big rack, right on, it's a bonus, but now I teach you how to take care of the meat and take 'em off, you know, without disturbing the resources and without making *pilau* the place.

ME: Yeah, so when back in the day when you used to go when you were younger, did the Ranch have system to control the pig, or deer, was it as big of a problem as it is now?

JJ: It was just—nobody really had a system to take care, I guess for the deer, it was just letting the ranchers hunt, yeah. The pigs up in the mountain—not too many guys at that time hunted pigs. You know, today, today we get more hunters. When I was growing up there was only a few, just a few hunters and everybody thought we was crazy, “What you guys do, what you guys hunt for, what do you guys—” But, there was the pig hunters and us, I was mostly one deer hunter, but when I like pig, I go hunt pig, cause I hunt anything. So we would go up towards the mountain and then, because the Ranch had their water system in the area, 'cause working up there, I find where the pig stay and then we just go up there and shoot one pig. And you know, those days, we take one dog, just for, you know, for track 'em, basically we shoot 'em, we don't stab 'em, like the kids today, they shoot 'em. Today you get guys today, take one dozen dogs for hunt and they call themselves hunters, but, whatever.

ME: It takes all kinds [*laughs*]. So do you know of any *mo'olelo* or songs or chants associated with Kamakou?

JJ: No, not Kamakou, the *mo'olelo*, chants, I'm not too familiar with that.

ME: And have you ever seen any traditional sites in the area up there?

JJ: At Kamakou, basically, shucks, the only thing we seen is if you come down, if you come down towards Makakupaia, come down to what's Kawela, then you have more stuffs, yeah, 'cause that's what I was taught by different people, you know, 'cause you got to respect the area, 'cause there's a lot of Hawaiian stuff in there—they call 'em just Hawaiian stuff. I always was curious and I used to ask, "What kine stuff, Uncle?" and he would tell me, "You don't need know, boy, it's our generation, when you guys need know that so you just, take care—*mālama*—the place."

But, when I was growing up, I hunted in Kawela plenty which is right below Kamakou and its, you know, in fact, it's the same, I guess, the *ahupua'a* you get everything right there—all the way from Kawela to the back of Pelekunu, so Kamakou's involved in that *ahupua'a*, so, I was taught and I was shown some stuff, the Kawela get the house sites, there's house sites, there um, one big one and I think I told you the time that I seen you guys and it's as you going up towards Pu'u Kolekole Cabin, the road from Kawela, if you look at your left-hand side the "s", I guess the east side of the Kawela big gulch, there's some *wiliwili* trees and when I was little, I always used to see that and so I used to ask my Uncle them, "What is that?" and they would tell me that was one house site and I tell them get one shrine with a house site, there's also some petroglyphs, so those things—I've seen all of those stuffs.

ME: Yeah, yeah, yeah.

JJ: And they also told me about the cave that goes from leeward side to Pelekunu on the opposite side.

ME: Wow.

JJ: That was made from the lava tubes or something.

ME: Yeah, yeah, yeah.

JJ: And I used to be curious about that, so I used to like, kind of look for them all the time. Once, I came upon one, it was a big hole. I walked inside and went down but it was fricken' dark and stuff I came back down I told my uncle he said, you know, "Not too many guys find 'em, they saw them on the ridge line" and I said, "Well, I found 'em," and he said "They must like you, your *'ohana*, your family must have been around the spirits, you know, the Hawaiian stuff."

ME: Right, right, right.

JJ: So they wen' show you the place because they don't show anybody that place, so, I asked him what was that and he said it was probably was the channel, the tube that goes right around to Pelekunu. I said—I was kind of excited, but, I never did really ever see it and venture longer into the tube but when I go back up couple other times, I try look for them but I get distracted from the pig, or goat or the deer or something, so we no more look, yeah, but there's a lot of stuff up there I've heard, and there's water caves up on the—towards more, towards the gulch part between Kawela and in fact, right below, Kamakou, the big mountain right below Kamakou, I mean the, what's that the, what you call the—the pure up there by Kamalo, Kamalo, there's water caves up there that we found.

ME: And what are those, caves with, like, water inside?

JJ: The water come dripping down and then you get one big pond and the water sweet, yeah, you know, nice sweet water for drink.

ME: Wow.

JJ: But there was a lot of stuff and we find more up there, we find, um, a lot of, there was a big battle field on the bottom so, there's a lot of grave sites out there and then, on that side, the lower half, they put the graves, the *heiau* down there on the ground with the rocks. If you go further up, there's caves

that they put the bodies inside the caves and then right on the outside of the caves get the squash, yeah, with all the goodies inside that they own, yeah.

ME: Oh, in like what, a basket or just...

JJ: Just a gourd, just inside of a gourd, so I used to look at them and my father used to get mad at me 'cause you not supposed to touch 'em but when I was a kid, I always like look. I always ask respect, I ask—you know, my old man always told me, when you ask and if you can still hear the birds and everything is really mellow, there's no strong wind right after you ask and you know there's nothing out of the natural, he said they're letting you so you can go look, but no make any kine. He just told me to put 'em back, you know, don't—no take 'em. So I find a lot of stuff, you know, I find all kine. I find "treasures" I call 'em, but it's not mines. So I put 'em back. It was interesting, like I said, my dad, he always liked, he always liked us to get away from that because my grandma them and some of my aunties, they passed away, they was really into that and my father, the old style, if you going bother them, they going bother you, so, leave 'em alone, leave 'em alone. But like I said, I was always curious, always like look. He tell me no, but I'm going do 'em, so I was a hard-head one, so, I've seen a lot up that side going up into Kamakou itself into the valleys, you know, it was so thick and lush it was hard to see things.

ME: Yeah, yeah.

JJ: Hard to really see stuffs, um you know going up towards the Kawela Intake, you know we seen some—you get some formation of rocks but hard for tell if it's anything 'cause everything is just so overgrown. That why with Nature Conservancy, trying to do what they do trying to get the invasive species back even though I quote when I say, to me, one forest is one forest regardless of what grow inside as long as that buggah grow like one forest and rain come, it's good, but you know in Hawai'i, they like, you know, pull 'em back down to, I guess, native plants, and I just hope we get enough native plants because Hawai'i was just one rock and they brought everything in.

ME: Yeah.

JJ: What is native, what is not. Mostly it's like, most of it was on the bottom of Kawela, right underneath the big, that big Kamakou mountain.

ME: Do you know where that would be [on the map]?

JJ: If you looking at—this is the Kawela Road coming up to, ok, this was basically right here is the Kawela Intake, come down that road in this valley get stuff inside, this gulch get all stuff inside. But up on this side, up towards you know, up here where the old Deer Pen stay, then no more pen and stuff, there's, you know, the caves that you get up there is all man, man-dug, yeah, you get the one going to the Kawela Intake, you got one, right in fact, right underneath this road, this one going right across—I don't think plenty guys know about that one—you get one that go right across the road, um the bog, you know where the bog, right on top, you got one tunnel from this side of the gulch, go right across to the other side and then they used to cross through.

ME: Wow, so where was the waterline that you guys laid?

JJ: From Kawela Intake here it went straight back down there [points towards Ooa].

ME: Oh my gosh.

JJ: All the way down, yeah, was, um, and we carried them all in there. They brought them all in but we carried them all down, and I was young then and we used to drag—we used to ride the damn things down some hills, you know.

ME: Wow.

JJ: But you know, was a lot of work but was good fun.

ME: Yeah.

JJ: You know Eddie English did a lot of the work, Eddie, yeah, did a lot of stuff with his father, Bobby was up there, so he used to—he knew a lot of stuff so he used to show us some stuff, but, yeah. The old timers, the old, old timers showed the next generation was, it was, you like, you go look, if he go show you, he show you. If he no show you, it means you wasn't supposed to see 'em. That's how my feelings, but hey, 'cause I find plenty stuff west end, I find plenty stuff different places.

ME: Yeah.

JJ: And I always show, if I'm hunting and I show the guy, "Check this out—the '*ulu maika*'" I tell 'em, "Oh look, look this medicine rock, brah, this one medicine rock, look, neat yeah." And the guys look and I show them stuff and we just did a thing on the Travel Channel was with, I was, *The Wild Within*, and um get one nice buck, wasn't a big one, but it was a nice buck sitting right in front one *heiau* and the guy wanted to shoot 'em and I told him, "No." And he goes, "Oh, but" and we had a little—not argument, but because it was a nice buck, I said, "No, you don't shoot 'em." He went run away and off-camera I told him out of respect for me and this is my place, that's a grave and we would—I would never shoot at a grave, I said that, you know and he said, "Aw, man, I never know. I said, "Yes, that's one *heiau*." So, I took him go show him at the end and on the camera showed and I told him, "No," and he said, "Why?" And I said, "'Cause it's one grave and I wouldn't want somebody shooting at my grandma's grave too." And I said, "'Cause it's not cool," but most guys, wouldn't care, they would just shoot, just shoot, yeah.

ME: Yeah.

JJ: I always learned—was taught to always have respect. If somebody piss you off and they older than you, out of respect, you gotta turn that other cheek real hard, turn the other cheek and walk away even though you could go and crack 'em. Out of respect, you just walk away, just walk away—if he do it again then maybe [*laughs*], but always have respect for people, yeah.

ME: Yeah. So, most of the burials that you—in the caves were—

JJ: Were more up in Kawela. Wasn't into Kamakou area, 'cause like I said, down, you know it was hard because it was so lush up this side there. You know I went into the, what's that, the valley—the tunnel, the big tunnel, the backside of the tunnel, the water tunnel, even that, I mean, it's hard to find anything unless you looking for something.

ME: Yeah, yeah, yeah.

JJ: You know the only thing I find is, you know, going into the tunnel, coming out towards, coming out down by, um, Kalaupapa side, get the old, old, um, the work man houses and stuff we used to find inside there.

ME: Wow.

JJ: And it's all money 'cause you look on the side of the big mango tree and get choke beer bottles—

ME: The old ones—

JJ: The old, yeah, the beer bottles and all, used to ask my uncle them, “What is that?” “That’s from the workers?” They used to go down they did the waterline or something back there so they had one house inside there and amazing, today, you look, no more house, but the Hawaiians had houses inside there—I mean the modern Hawaiians the built houses out of wood and stuff, yeah.

ME: So, the house sites are more or less gone, but their trash and—

JJ: Yeah, ‘cause inside Kamakou, the Cooke’s had their hunting houses inside there, um, right, you, right before you come out to the deer pen, I forget the name of that gulch where the road come across, right after when you come down this side there was two houses, there was two houses inside there that they used to use it when they used to go hunt.

ME: Yeah.

JJ: The Cooke’s I guess, we used to play in ‘em right next to a nice river that crosses the road before you climb up to the deer pen and had—when I was little, the houses was, was nice, I mean, you go inside and the house nice. But now, you go inside and it’s all down, so now all the pig hunters they call ‘em “smash house” and all this kind stuff, yeah, but there was wooden structure houses besides, you know, all the old Hawaiian stuff houses—that’s the only kind of things I seen up there. Hawaiian stuffs, like I said, was all below the forest line, you know, that I’ve seen.

ME: Like stacked rocks, enclosures—

JJ: Yeah, everything was below; house sites, house sites below, you know, the burials we found, like I said, was all towards the caves, the valleys, the big gulches up on the side, get burial sites inside the cave and stuff like that. I don’t know if people know, you know, but, there was a lot of them up there, all the way up towards, towards, towards Kamalo side, inside where the Meyer’s have their land ‘cause that’s family of ours inside there get, we found inside there.

ME: Yeah.

JJ: Plenty caves in the kind. I don’t if that’s they buried special ones in the caves and the common people in the ground, but there’s a lot of them up there.

ME: So even in the Preserve, or you think more [outside]?

JJ: All depends how far the Preserve come down, yeah.

ME: This is the Preserve here [points at Preserve boundary noted on map]...But some [burials] inside?

JJ: See how the thing just get out of this, this area, this is the ridgeline where the caves stay go across there.

ME: Lehu‘ula.

JJ: Lehu‘ula, the caves start from inside here off this ridge and go right across to Pelekunu. It’s right off the boundary of Kamakou.

ME: What about the Pu‘u Kolekole Cabin now, that is still there?

JJ: Yeah, I mean, the last time I go up there since—ho, when I was younger but, we used to drive up Kawela Road and they used to always lock the gate—

JJ: We come off of Nature Conservancy and you really go to Kamakou, the mountain, yeah, the mountain itself, nice the view, you can see—in fact, if you look at ‘em, it looks—you can see the Seven Falls right there—it’s like everything is so close that if you were on that finger, everything just runs back down to the south side—real nice, real nice.

ME: Where that cabin is?

JJ: Yeah, you just walk out to the valley on the side and it’s really nice, I don’t know if it’s overgrown now, but, we used to go up there and we used to check ‘em out ‘cause we used to find all kinds of goodies up there—I mean, just the normal stuff, they—the local guys, when they make the fence, they lazy like anybody else. You look all the redwood poles all stacked underneath the trees that they when hide ‘em instead of use ‘em—find all that with all the extra wire that they all had—a lot of time it was straight wire and just look at all the goodies that we find up there. But nothing—we never see too much sites, like I said earlier, everything was just overgrown, yeah, so hard for see, yeah, unless you had one geographical map or something where somebody said specially, this used to be one site and then you can go look, yeah.

ME: Right, right, right, right. Ok, are you aware of any traditional gathering practices within the Kamakou area? I guess you were saying before, like the *maile*, like gathering, but I guess more back in the day.

JJ: Well, I don’t know if it’s, how can I say that, I mean, ‘cause right now the State is regulates everything that is going in and out of that place, yeah. But people, I know of people today still go up there and gather, yeah, the *leis*, you know the *uhaloa*, get the *uhaloa*, go grab stuff—it’s some place for get food, yeah. And the kids still go up there hunt—they give ‘em, they let them hunt, they manage that, yeah, hunting, they get hunting up there for the locals—the residents, so they still have that, yeah, and I think the Nature Conservancy have things too, ‘cause I think they lease a lot of that area, yeah, they lease a lot of that so they open up some kind of hunting and that’s so, I think that’s so they should’ve managed—they always like get rid of the animals so that—all that kind eradicate, you know, just to let the local hunters hunt a little bit maybe if they have a problem, let them hunt a little bit more—you know longer seasons, give them more opportunity for hunt ‘cause hunters can thin their herd down, you know, but just have records on what’s going on, yeah. How much pigs coming out, you know, the goats, they like get rid of the goats, then some deer, ‘cause you get plenty deer up there too, yeah, Makakupaia and stuff, get plenty deer and goats, yeah.

ME: Did you ever hear stories about plants up there that people would use for medicine?

JJ: Oh yeah, yeah, there’s a lot of stuffs that you can use, you know, get the teas, get the get the you get the *māmaki* tea up there, yeah, that everybody likes drinking—I used to drink that too, but more easy go store buy ‘em in the bag.

ME: [laughs]

JJ: But, get *kōko ‘olau* or something, on the lower part of Makakupaia, by Kamalo, by Kamiloloa up by my house, I used to go up there for pick up that, but, um, I think most of the gathering today only the, the people, just for you know, some of the people still gather things for medicine, but not too much know how to do that already, I think. Most everybody they just go up there for gather, go look *maile* lei, and, you know *uhaloa* or something, but, you talk to the Hawaiians, they all say, “Aw, nah, I go up there gather my—.” Yeah, a lot of them don’t know even how to do ‘em I think today.

ME: That’s what Aunty Penny [Martin] was talking about, you know the right way to gather.

JJ: Yeah, yeah.

ME: But what were you getting *uhaloa*?

JJ: Yeah, the, the, the fern, the shoot.

ME: Same thing as *hō'i'o*?

JJ: Yeah, they get all different names, the Japanese call 'em *ebi*, or something like that [*laughs*].

ME: Like that, *uhaloa*?

JJ: Yeah, I don't know, I'm "Pordagee."

ME: [*laughs*]

JJ: Half-breed—I can't spell 'em half "Pordagee"/ half Hawaiian, so.

ME: That's good. Ok, so, how has Kamakou changed over the course of your lifetime?

JJ: Shucks, I don't know, it's just, to me, everything is so damn thick, but, um, before was more, like I said, you could go up anytime you like and do a lot of stuff, I wouldn't say care, but no one was managing, so it's good now, people managing the place so it's, you know, you have certain times you can go up there and do stuff and you know, a lot of times now, they always say you got to ask permission to go up there and grab things, gather things for make leis and stuff, supposed to be illegal for take 'em out, but I guess if you ask the right people you can go get, um, but, the changes is just, you know, like, they did the—the only thing, the Nature Conservancy did the boardwalk stuff, they put, they put you know—fix the trails and put metal for more people can look—

ME: Yeah, yeah, yeah.

JJ: My thing is...leave 'em alone it's not ours, you like look, you do 'em in the ways normally for do 'em you just walk the trail, cut your way inside and find 'em. Today they make 'em easy for all the tourist and everybody like look here, which is good for the people that came to get smarter about our island, but as long as they take care of their '*ōpala* that they leave, instead of leaving 'em, so, other than that, it's the same. Too bad the plum trees are no more plums like before but [*laughs*]...

ME: Now it's more thick, you think?

JJ: To me, yeah, it's more thick, yeah, even though they say that they getting rid of some of the invasive stuff, it's still—it's thick, I mean, before had more openings, before when we used to hunt up there, the Flats was more flat, right by the Deer Pen, used to be, I mean, right behind the Deer Pen, that's all marsh land before, I remember small kid walking over there and we walking in and when I hunt behind, by Halawa side, we walk in the water up to your shin, you know, some places you step, you go down deep, but no more. I don't know if there's still water running out or if we're taking too much water, but, it was all marshlands up there, yeah, now, it's dry, it's dry, you can just walk and it's not real wet. Used to have, I mean, here used to be all water ponds inside, just water all over there.

ME: I've heard that. Um, and so do you think the current management of Kamakou affects a place or places of cultural significance?

JJ: Try break 'em down a little bit more easy for me to understand what you trying to say.

ME: [*laughs*] The way that they're managing the Preserve, do you think it affects—either positively or negatively—a place of cultural significance?

JJ: I think it's positive 'cause they trying to, you know, I mean, I know they trying to do good, you know, they trying to eliminate some of the animals because of all of the crap that goes down to the ocean, yeah, I mean, um, then they try to eliminate all of the invasive species with different kind trees, but, to me, I mean, that's why you get—that's what I tell 'em, that's why you get the pigs up there. The pig is like one tractor, he till the ground even though it going grow different kind stuff, he till the ground and the thing throw new growth, yeah. To me, the thicker the forest, it supposed to be better because it holds the water in—it doesn't take it down to the ocean, yeah. So, you know, if they manage it right, they can do it, it's just, you know, I'm not involved with them, so, I see what they do, I see them cut trees, cut trees, and you know, I guess it's for a purpose, but for me, the thicker the place it holds the soil better, so, I don't know.

ME: Yeah.

JJ: But I think it's, if you look every time get big rains, you still get mud in the water, I don't know anything worthwhile doing, but the water is still dirty.

ME: Yeah, it was bad a couple weeks ago.

JJ: Oh yeah, I mean, they try, everybody try you know, but leave up to the warden up there, *Akua*, he know what he's doing. We only screw him up when we step inside and—that's what I believe, yeah. Just let 'em go, as long as you're not damaging the whole thing, 'cause somebody one time they was talking about just get a just go get one big tractor and fill up all the gulches, we get plenty mountain left come down this island would be flat, stupid, you know, that's nature, that's how nature is, yeah.

ME: And then, are you aware of any other cultural concerns the community might have related to Hawaiian cultural practices within the Preserve, that, might not be your concern but other people might be talking about, or?

JJ: I don't hear too much people talking, it's just all it is was just couple time, just hunters, more hunters talking and they wish they could go hunt a little bit more you know, little bit more, deep into the area and stuff like that, but, I think, I think they're doing a good job, I mean, the residents do some hunting on the area and then also, I know people still go up there and gather stuff, so, at least they can still do it—they're allowed to still do it. And it's the people who—our people, who have to think about what they're doing up there, instead of just going ass crazy and taking more than what they're supposed to take, you know, just take what they need, yeah. That's the old basic thing—take what you need and everything going to work fine. The ocean, you take what you need, the mountain you take what you need and everything going to sustain itself.

ME: So, are there places within the Preserve that people can and cannot hunt and do they switch it around.

JJ: I think they pretty well opened the place up for the locals, 'cause I hear of guys hunting you know, way down in the areas and way up high up on the Pu'u Ali'i side, so, you know, basically, they let them go around and then what it is they, you know, they shut 'em down in certain times, so—which is good to control, yeah. But I know they hunt, they hunt, more up towards the forest, all up in the topside of Kamakou, yeah.

ME: Ok, this is kind of a side note, did you hear about any kind of ghost, ghost stories in the area?

JJ: Get some stuff from there, that people talked about, just seeing like, like, different animals that actually is one human creature, yeah—is supposed to be human and stuff like that.

ME: Oh.

JJ: Spirits.

ME: Kind of like *'aumakua*?

JJ: Yeah, spirit stuff, yeah. But, I don't know, no bother me when I go, so I don't care.

ME: [*laughs*] Yeah, yeah, yeah.

JJ: 'Cause we get 'em all over, I mean, west end, you know right, that big mountain right there, what you call, there's, we used to have one, half-man/half-deer running around. People used to, I mean the old timers, you know my dad seen 'em, yeah, he seen 'em. Used to call him "Old man Punakou," was small kid, we always used to go hunt up there, they tell you the story and now you scared and no like to go walk all over the place.

ME: [*laughs*]

JJ: And then you got a little bit older—aah—just one boogey man, what is he going to do to you anyway.

ME: [*laughs*] Maybe that's one of the ways they had teach respect for the place.

JJ: I guess so, maybe. But there's some stuff up there, that side we found some stuff, there's a lot of stuff on the west side, culture stuff.

ME: And Steve [Eminger] was just up there the other day with Eddie [Misaki] the other day and came across like some historic bridges so, there's a lot of historic stuff like you were saying—like, I don't know, water tanks—

JJ: Oh yeah, get plenty of water tanks up inside there, we see tanks. I don't know how to start if you like go back, but the bridges was all made from my great grandfather them, probably, those that they're finding across there. But there's a lot, you know, 1900 stuffs inside there, yeah, that, that, 'cause, you still find the water flumes that they used to make out of the redwood instead of the asbestos that we used to have to deal with. But there are water flumes that you find inside there. So you're walking around, guys really don't know—they stop on, "What is this redwood over here?" but if you really look at 'em, it's like—like one pipe, it's a flume, yeah. They used to cut down into the ground a little bit and then they set down the pipe inside and then run the waters down, but that's all natural stuff, yeah.

ME: Where was that?

JJ: Above the Deer Pen, had some inside there. Um, before the Kamakou Flats, where you get your Kamakou Flats, used to come down from some place up there—I don't know exactly the names of them but, what's that name of that mountain up there—right by the lookout, the second one, in the back had one flume coming from the back from inside there and then it goes down towards, in fact, it comes down towards Kapa'akea and Kawela used to come down that way, used to face this way, and then Kamalo had flumes up there, we found some flumes up there by Pu'u Kolekole Cabin, we found that redwood stuff inside.

ME: And so, that was taking the water to—

JJ: Bringing 'em down, bringing 'em down. But there's, you know, in the whole history stuffs, Kawela, as hot as it is, they had, get in fact, you go look—get terraces where they used to plant things up there, so you know they had water. How they brought them down, could've been through those flumes. Maybe those days was a little more wet than today.

ME: So when you were talking about the 1900s—like the earlier historic sites, what kind of sites were those, more, just the houses—

JJ: More like, more like the human stuffs that, I mean the Hawaiians was humans, but more than modern stuffs, the modern bridges they used to build, modern stuff like the flumes and the bridges and then the homes changes, instead of just rock stuff, there were houses, wood structures, yeah.

ME: Wow, ok, and then, you know of any other *kupuna* or *kama'āina* or cultural/lineal descendants who might be willing to talk about—

JJ: Most other guys I know when *make* already.

ME: Yeah.

JJ: The last one and everybody should've picked his head and brains was Mr. Otsuka, yeah, Cowboy Otsuka, and he was the one that, I used to afterwards, we used to run to him and ask him, "Pops, what's this," 'cause he knew a lot, yeah. So, he was a walking around dictionary, I mean, I used to tell him, "you got to put all of this down, it's going to be missed." When I used to like know even about medicine stuffs, you know, how to make, you know, stuff and he knew, he used to tell me, "You get this, you get that, 'cause you take 'em this so many times, you do this with 'em, you know, you cannot—" You know Hawaiian style, you always gotta take—you no can take even numbers, you take, you know, always got to be like three or seven or—cannot be four or six or some kind stuff, he would tell me.

ME: Wow.

JJ: But today, generation, I think most of the guys too modernized, I guess, get some guys who think they still yet and I hope they practicing 'em right, but, 'cause I was always taught, if you no go do 'em right, he bite you, you watch out, yeah, you watch out and then so, I no practice nothing, I just respect 'em, if I find 'em I leave 'em, it's not mines, nothing is yours, yeah, it's there's, so you just put 'em back where you find 'em. I say leave 'em alone and no tell nobody, or somebody going take 'em.

ME: Yeah, yeah. Well, those are all of my questions, is there anything else you want to add? Oh, Cowboy Otsuka, Hawaiian/Japanese guy?

JJ: Yeah, he was a Hawaiian, he used to do a lot—they used to fly him to the Big Island do some things with some people over there—I think the last part he was going into some schools and teaching but, you know, he wasn't, I know him, I knew him real good and, he wasn't a really smart man with the *pepa* and that stuff, but, man, he had so much knowledge in that brains of his—so many stories of things he had heard of, things that he had seen, things that he had did when he was a kid—all the way from east end, all the way to west end and, the guy, I say, I told him, "Pops, you got to go record your stuffs, somebody got to know this." He tell me, "That's why you come talk to me," I said, "Brah, I not smart, that not going stay in my brains long time, the thing going walk," like when I was small kid already, you tell me something today, two days later, I going forget, you know, so, he had the knowledge, he was smart. When I used to find things and I find, I find petroglyphs and I tell him, you know, how the thing look, you know, a man-shape, what this shape, what that thing was. And he would explain to me what this symbolizes, I guess, I'm telling you—he was smart, I mean he was so smart. I used to enjoy talking story with him.

You know my aunty, um, she was a Kakaio, yeah, and she knew a lot and so when, things came up, 'specially with words and family history, I used to go to her and ask her and in fact, I always used to tell the kids, eh, that aunty had the bible, get all our history, the family history inside it 'cause there's all family of ours, yeah, everything, so who, who has that bible 'cause she had everything. Every time she used to go get her bible and show, "Oh Joey, come," and she look, "This is your family, this is

everything,” I mean everything. If I was culturally minded then—I would listen, but I was one teenage boy, young man—I was just enjoying life, brah, not worrying about culture stuff, yeah.

ME: So the petroglyphs were more on the Kawela side?

JJ: More down towards Kawela side. I’m thinking if we found some up higher the mountain. Like I said, it was, us hard, up there, we used to just find rocks up there, was just it wasn’t any foundation rocks, it was just rocks, it wasn’t nothing to really look at, yeah.

ME: So the Ranch, did they have actually, they had cattle running through—

JJ: Not up, not up that side, yeah, we had nothing up there, we just had the water—they always took care of the water system which is still good today, so, that’s why we used to go up there. We used to like going in towards the Deer Pen area ‘cause used to have plenty pigs inside there ‘cause of the swamp lands, yeah.

ME: Actually, why did they call it the Deer Pen?

JJ: They actually built that because I think Kamehameha V, the last one, that’s where he was raising some—the deers up there, ‘cause it was a gift, yeah, and then he brought a lot of them to Molokai, so that’s how it started, so everybody used to grumble to me, “Oh, you know, we get the right to hunt the deer,” I said, “You go read the history, did Kamehameha ever, ever—get this one on tape too—did he ever lift the *kapu* on the deer.” The deer was *kapu*, ‘cause that was his pets, you know. So, today all them guys, “Ah, but you know, the *haoles* started shooting them so we get the right,” I said, “No,” I mean, “If you like talk Hawaiian, *kapu* is *kapu*, if nobody lifts the *kapu* off stuff, it’s *kapu*, I mean, you no can ‘cause you ancestor from him and I release the *kapu* or whatever. It has to come from him.” I always used to give guys a hard time about that, but they tell me, “You hunt and you Hawaiian,” but when I hunt, I’m a “Pordagee.”

ME: [laughs]

JJ: But you know what I mean, that’s why I believe that everything can be worked out if we all have respect for each other and we all talk with common sense in our heads instead of all trying to all beat each other, yeah, trying to be better than the other person

ME: So, where was the cattle kept, ‘cause the water was coming—

JJ: The water was coming down, the cattle was all kept the lower side towards, more towards the left side of the island, all from, if you look up the west side, this mountain right here—from that mountain, the bottom of the mountain all the way down to Kaluakoi was all cattle, yeah and the plus then they had the pineapple fields came in and they get their water for the pineapple fields and stuff, yeah.

ME: Ok, one more quick question—these are all my questions I got to ask you. Billy Akutagawa was saying that he remembered hearing stories of cowboys up at the cabin slaughtering the cattle—

JJ: That’s Kamalo, by Kamalo cabin, ‘cause they had cattle running up on this side [near eastern boundary of Preserve] but in Kawela itself, as long as I know, I don’t think we had cattle all the way up in Kawela ‘cause it was too steep for our cows, yeah, dangerous, eh, but I know they ran Foster’s they had cows in Foster’s—I think they also had Kamalo—they had cows going up to that cabin—they had cows going up there. Up Pu’u Kolekole Cabin, I don’t think they had cows way up there unless—I know they had wild cattle, had wild cattle that ran off from, Kakalahale way down on this side, yeah, we used to run cattle all along the bottom, all behind here all had cattle but it stopped to the forest line, that’s why we have that big long fence going across, that goes from Kaunakakai Gulch all the way towards Kawela, one big, long fence, I know ‘cause we fix ‘em when I was small kid and we had to

walk that fricken' thing and, um, we had cattle that escaped that went into the forest, but it was escaped cattle, they wasn't raising 'em inside there, yeah and so maybe that's why, 'cause we used to shoot some way inside the forest but it was just wild cows that we used to shoot. After shooting one or two, they you—frick' this too big for carry and so you no shoot 'em after that.

ME: [*laughs*] But usually, the wild one's I've seen in Kona were smaller, yeah, wild cattle?

JJ: I don't know, 'cause those up there were big, 'cause we tried to round them up. I remember being in, I think it was just out of high school I was working with them and we went up to try get 'em, they came running down, I look, frick' that I went up the tree 'cause I never had a horse—they had the horses and then they had us young kids on foot chasing 'em around, we was all up at Makakupaia and we brought 'em all the way down up, on top the thick forest and brought 'em down to Makakupaia and we lost 'em, they turned right around, they never like come out, they turned right around and went right back into the forest, went back up. So after that they started, you go up there, you see 'em, you shoot 'em, just shoot 'em 'cause they know they can hide in the forest, yeah. And unreal they can survive in the forest, you get food, but not the kind food good for them, man, grazing grasses, more plants and trees, yeah. But they survived inside there.

ME: How many were there—the wild cattle?

JJ: I think it was over 100 cows that when run away inside there at one point. In fact, when I was working for the Ranch, the last one we killed wasn't up that high, but we had some below Henry Pali's in the Kipu area, and shucks, we took out a lot, but we donated mostly everyone to the residents, but we took out a bunch that was almost close like that, but that was close to 100 cattle inside.

ME: Ok, another one, the program that they have now, what you were saying the eradication—when they shoot them, they collect the animals?

JJ: Hopefully, hopefully they taking them all out [*laughs*], yeah.

ME: Other places, I've heard not on Molokai, other islands, the State will go and then—

JJ: They'll shoot 'em and leave 'em.

ME: Yeah.

JJ: Yeah, um, Nature Conservancy try take out what they can, um I know that for a fact in there they try to take out, but a lot of them 'cause they like eradicate they shooting 'em off the side of the gulch and then they just leaving them, which I think is a *pohō*, waste, yeah, but, that's how they do they thing, so. They keep up doing that, they not going have enough money for keep going on [*laughs*]—the Hawaiians going get 'em back. Nah, I heard of stuff that they leave stuff back, but most of the stuff they try to get out, where they can go and get them without somebody getting hurt. 'Cause I've heard of guys coming in from Maui, the State guys and they come with the helicopter and I've seen that when I'm hunting, you know, Pelekunu on the backside, on those valleys all on top, you know, and we seen 'em fly over and they shoot and they leave 'em. We get upset 'cause they telling us we can't go up there and hunt and we got to sneak up there to hunt and they just killing 'em for nothing and we killing them for food, there's a big difference—we eating 'em not just leaving 'em.

ME: And they have those kind of programs for the deer, pig, and—

JJ: Nature Conservancy mostly for the pigs and the goats and if I guess if you see deer in certain areas you can take 'em out 'cause, deer, hard for find in the forest, they really, they hide real good—they not as stupid as the pigs and the goat, but they're there and I guess, and I think if you see 'em, I not sure,

'cause, I don't—since I've been doing my own business, I hardly bother going in those areas 'cause I get my own place to hunt already and if I do hunt pigs, I go east, way east out of this area.

ME: So what was the last year, around that you were working for the Ranch?

JJ: When I worked for them, the last was in 2001, that I worked for them, after that, I worked for myself and I worked for them since I was a little kid and I'm an old fut now.

ME: And what were you doing, you were their, their, hunting guy?

JJ: When I was working, yeah, I was a manager, working as—managing hunts and security, had all kinds of different hats we had to wear for that, yeah, but I was with the security and hunting.

ME: Wow.

JJ: And then prior to that, when I, when we was working, it was just maintenance with the Ranch when I was only a young kid, growing up teenager and—

ME: Yeah, yeah. So did you get to work with your dad and all your family?

JJ: Yeah, oh yeah. Could, them my grandpa them was old but I got to go with them when they was working. My Grandpa Joe, he was still driving around his Jeep, he was, I guess he was security for the Ranch and if you was opening the gate and you was too slow, he would leave your ass there so you learn how to run pretty fast.

ME: *[laughs]* Wow.

JJ: We always ventured up the Ranch and then go up the forest with my Uncle Harry, you know and that was good fun, 'cause, we was always, when we was little, we were raised on the west side of the island, yeah, always did everything down there 'cause the family was always there so when they was going up to the forest towards Kamakou side towards the lookout, was one treat for us, yeah, "Oh man, Uncle Harry, we going get plums," was always plum season he come, "Oh boy, we go, you guys down for go up" and we would jump in his truck—and watch his fricken' dog, his dog bite, so the dogs in the front seat and we're all in the back 'cause nobody one like go in the front 'cause the dog bite and he like drinking, yeah, so we go up there and he's singing and he look, and he know I like hunt so he go up there, "Aww, we see one pig we shoot 'em." "Aww, shoot Uncle," so we used to drive up and when you drive up—if you've been up there, if you go up towards Red Hill, it's the left hand side, used to be, if you look now, choke trees now, used to be all open, was one grass field and had guava trees here in there—we used to shoot the trees way down there before you even to get to the old Boy Scout Camp, yeah, used to have 'em way down there and everything—like I said, everything was more open, yeah, and the, if you don't shoot it there, we'll go through and shoot it some place and the last place we gong see 'em and we know we going get something is down by the Deer Pen, where all the marshland stay. It was just a treat to stay up there the whole day and, "You like go home?" "No, we go, we go, and so, "We like walk the intake, take us," 'cause we liked walking through the tunnel 'cause it was all dark and then, you know when you little, right, then they give you flashlight, you think, all good, then you walking through the tunnel all the way through the tunnel, little kids laughing up and we going in the front and he tell us, "Oh, be careful, might have one pig in the front there." "What, fricken'." We turn around—nah, nah, nah.

ME: *[laughs]*

JJ: So it was good fun, it was a good fun thing, just the kids going up and having fun and that's what I remember about that place—and then going up, picking up watercress, picking up the fern for eat, picking up the plums, the pears, the little apples, I forget the name—

ME: Mountain apple?

JJ: No, the kind, the other one, what did they call 'em. Look like one regular apple. The small apple, not the mountain apple—was small like a regular apple...crab apple, crab apple, we used to pick up that.

ME: Yeah, yeah.

JJ: Get all kind of goodies and always walking through places trying to find new fruits that we can eat, yeah.

ME: Yeah [*laughs*].

JJ: And then he stays there by the truck and let us roam. "Don't get lost, boy, your father kill me, now." "Yeah, no worries," and we just go, down the gulch, up the gulch. And we used to pick 'ōpae, 'ōpae, I don't know if they get today but we used to get 'ōpae. You look inside the water, look black, but when you cook 'em, come red, yeah, that mountain 'ōpae, used to have plenty mountain 'ōpae we used to catch, yeah. This side never had *hīhīwai* but we had the mountain 'ōpae.

ME: Wow.

JJ: And then looking at the snails, you know those colorful snails, he'd take us look that, so walking around, he tell us that's one snail, "Snail! That's one bird." "Nah, damn hard head kids." So we go, he tell you be quiet 'cause when you go too close, they shut up, yeah, they *ch-ch-ch-ch*, when you get close, *ch*—the thing stop making noise or they drop to the ground, so we used to creep up the tree, hear 'em, hear 'em, then you look and you find just the shell—it's a nice colorful shell, the shells up in the mountain.

ME: Yeah.

JJ: There used to have so much. Today, I try look—I hear 'em, I look, but I no can find 'em, they're harder now to find yeah. But they're nice, they colorful, it was the first time I ever seen something and I was amazed—and we used to take people up and show 'em, "Hey check out the shells, get snails up there," show 'em the colorful snails.

ME: Yeah, I heard that they made noise.

JJ: Yeah, it's like one bird *ch-ch-ch-ch-ch-ch-ch*, you know, all this noise and the minute you get to that tree where they're at, they shut up and they're not going to sing.

ME: And what kind of birds have you seen, have you seen a lot of different kinds of birds up there?

JJ: Just the red, just the red and black one, the *a'a*-something, but not too much the Hawaiian birds already, more that one, um, I think the Hawaiians when destroy them all when they used to make their cloaks and stuff.

ME: Yeah, yeah, yeah.

JJ: That's why I used to tease them, I used to tell, "You guys trying to save the birds, the Hawaiians used to pluck feathers off of them." "Oh, but they still let 'em go," and I said, "Shucks, let me pluck feathers off of you and see if you going live after that."

ME: [*laughs*]

JJ: You know, running around in the cold—and I'm just playing with them, but, you know they used to take the feathers off to make their feather lei, look how big the leis, took a lot of birds, so.

ME: What about hunting birds up there, you guys hunt—

JJ: Aw, not too much, they open them up for the State, up inside there, but the only birds is the francolins that live way up there, and there not that plentiful up there—so, not too much hunting for birds up in that are—more just the pigs and goats, yeah, like I said, yeah.

ME: That's it [*laughs*]. Last chance?

JJ: No, no.

ME: You good?

JJ: *Pau*.

ME: Thank you so much, *mahalo*.