Research in Action: Ethnohistory of Puna:

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Praxis: exercise or practice of an art, science or skill.

Praxis distinguishes Ethnic Studies from the long-established disciplines of the social sciences. Ethnic Studies faculty are committed to placing research at the service of the community and challenging students to examine and analyze contemporary issues of concern to Hawaiʻi’s ethnic communities from diverse perspectives.

The clash between the beliefs, customs, and practices of Hawaiian descendants of Pele (Hawaiian goddess of the volcano) and the developers of geothermal energy is one of the issues which drew upon the resources of Ethnic Studies faculty and students. The issue evolved as the federal and state governments partnered with private corporations to clear the largest remaining lowland rainforest in Hawaiʻi for geothermal wells and power plants. In response, Hawaiians filed several civil suits, organized religious ceremonies in the volcanic rainforest, produced documentary films and joined with environmentalists in public protests.

A key turning point in the struggle was a ruling by the US federal court that an Environmental Impact Study (EIS) was required for the project to proceed. Where proposed development projects funded by the federal government affect native peoples, new historic preservation laws mandated the inclusion of a cultural impact study in the EIS. Thus, for the first time since the passage of the new laws, a cultural impact study was conducted for native Hawaiians in Hawaiʻi.

The First Cultural Impact Study on Native Hawaiians

University of Hawaiʻi faculty from the Ethnic Studies Department, the Department of Urban and Regional Planning and the School of Social Work were contracted to conduct the study. The team drew upon the individual skills and experiences of their faculty and developed a multi-method approach for the study.

The study conducted a literature search on native Hawaiian cultural, religious, and subsistence customs, beliefs, and practices. A special review of the Pele chants for the affected districts was conducted in order to identify significant sites and cultural use areas. Place names and ʻōlelo noʻeau (descriptive proverbs and poetic sayings) for the districts were gathered for insight into the landscape and natural resources of the district. Native Hawaiian ʻohana (large extended families) and cultural groups likely to be affected by the proposed geothermal project were interviewed. These informants were asked to identify areas of subsistence, cultural, and religious use on a topographical map of the district. The data gathered were analyzed and organized into a report on the customs, beliefs, and practices of the Puna Hawaiians.

The study proved significant on two levels. First, the information gathered for the final report, *Native Hawaiian Ethnographic Study for the Hawaiʻi Geothermal Project Proposed for Puna and Southeast Maui* (Matsuoka et al. 1996) factored significantly in a civil suit, *Pele Defense Fund v. Paty [Pele]* and helped establish an important precedent for the recognition of native Hawaiian access rights (Supreme Court of Hawaiʻi 1992).

Second, as the first cultural impact study conducted for a native Hawaiian community, the study serves as a template for the conduct of such future studies.

Native Hawaiian Access Rights

In the *Pele* civil suit, the Pele Defense Fund claimed that the exchange by the Hawaiʻi state government of the Wao Kele O Puna Forest Reserve with Campbell Estate for the lands of Kahaualeʻa would deprive Hawaiians in Puna of their traditional access to the forest for hunting and gathering for subsistence and cultural purposes. Ethnic Studies professor Davianna Pōmaikaʻi McGregor submitted an
affidavit based upon ethnographic research and key informant interviews with hunters and gatherers who were part of Hawaiian ʻohana in the Puna district. Citing the affidavits of Dr. McGregor, Puna resident and hunter, Clarence Hauanio, and Puna resident and gatherer, Emily Naeole, the Hawai‘i State Supreme Court ruled that members of Hawaiian ʻohana in the Puna district customarily hunted and gathered in the Wao Kele O Puna Forest. Moreover, the Supreme Court ruled that Hawaiians in the district not only hunted and gathered in their own ahupua‘a (land division and natural resource system) of residence, but also hunted and gathered in adjoining ahupua‘a.

The Hawai‘i State Supreme Court first dealt with the subject of native Hawaiian gathering rights in Kalipi v. Hawaiian Trust Co. [Kalipi] (Supreme Court of Hawai‘i 1982). In that case, the Supreme Court held that such gathering rights are derived from three sources – Chapters 7-1 and 1-1 of the Hawai‘i Revised Statutes (1985), and Article XII, Section 7, of the State Constitution. In Kalipi, the court held that lawful residents of an ahupua‘a may, for the purposes of practicing native Hawaiian customs and traditions, enter undeveloped lands within the ahupua‘a to gather the five items enumerated in HRS 7-1.

The Supreme Court ruling in Pele Defense Fund v. Paty expanded significantly upon the rights established in Kalipi (Supreme Court of Hawai‘i 1995:10). In Pele, the court explained that Kalipi allowed only the residents of an ahupua‘a to exercise those rights on undeveloped lands within the ahupua‘a. However, the record of the 1978 Constitutional Convention which promulgated Article XII, Section 7, of the Hawai‘i State Constitution led the court to believe that the provision should not be narrowly construed. Accordingly, the court held that “Native Hawaiian rights protected by Article XII, Section 7, may extend beyond the ahupua‘a in which a Native Hawaiian resides where such rights have been customarily and traditionally exercised in this manner” (Supreme Court of Hawai‘i 1992).

The Supreme Court ruling in Pele ultimately led to an even broader interpretation of native Hawaiian access rights in a sixty-one page ruling in Public Access Shoreline Hawai‘i and Angel Pilago v. Hawaii County Planning Commission and Nansay Hawaii, Inc. [PASH/Kohanaiki]. In this decision, the court placed an obligation upon state agencies to “protect customary and traditional rights to the extent feasible under the Hawai‘i Constitution and relevant statutes.” Moreover, the court ruled that access is only guaranteed in connection with undeveloped lands, and that preservation of those lands is not required; however, the state does not have the “unfettered discretion to regulate the rights of ahupua‘a tenants out of existence” (see McGregor 1996).

Thus, the first cultural impact study on the impact of the Hawai‘i Geothermal Project on native Hawaiians demonstrated that such research can be a powerful instrument in the service of the community. This fact was demonstrated when the information gathered in that study was included as expert witness testimony and proved pivotal in the State Supreme Court’s decision to allow gathering rights of native Hawaiians to extend beyond the ahupua‘a in which they reside.

**The Significance of Cultural Impact Studies**

The Hawai‘i Geothermal Project ethnographic study also provides a template for the conduct of future cultural impact studies. Such studies are looked to as a means of fulfilling the obligation of state agencies to protect native Hawaiian customary and traditional rights under the PASH/Kohanaiki ruling of the Hawai‘i State Supreme Court. Environmental and Hawaiian organizations, such as the Ahupua‘a Action Alliance and the Native Hawaiian Advisory Committee, have drafted and supported legislation which requires the conduct of Cultural Impact Studies as part of every Environmental Impact Study. In response, the Office of Environmental Quality Control (OEQC) has drafted guidelines for the conduct of Cultural Impact Studies under the Environmental Impact Study process (James 1991). Given this initiative by the OEQC, cultural impact studies will likely become an integral part of environmental impact studies.

This article uses examples from the Puna section of the native Hawaiian ethnographic study for the Hawai‘i Geothermal Project to identify and describe the key elements of an ethnohistory of a district when conducting a cultural impact study.

**Ethnohistory and Puna**

The ethnohistory of the land begins with an examination of the traditional cultural significance of the district. The place names for the district and the ʻōlelo noʻeau for which the area is famous should be found and interpreted. Descriptive chants for the area should be researched, translated and interpreted.
These provide valuable insights about the cultural resources and features for which the area is known and thus the overall role of this area in the traditional cultural practices and customs of Hawaiians.

For example, *puna* means “well-spring.” Hawaiians observed, “Ka ua moaniani lehua o Puna / The rain that brings the fragrance of the lehua of Puna” (Pukui 1983:172, number 1587). This ‘ōlelo no‘eau refers to the forests of Puna, which attract clouds to drench the district with many rains, refreshing and enriching the Puna water table, and sustaining the life cycle of all living things in Puna. While the Puna district does not have running streams, it does have many inland and shoreline springs continuously fed by rains borne upon the northeast tradewinds.

A place’s traditional *mo‘olelo* (myths and legends) within its respective districts record what the Hawaiian people observed as the place’s primal natural elements and its important natural and physical features and natural resources. They provide, in a story form, a description of the natural environmental setting in which early Hawaiians settled and established themselves. The primal natural elements were depicted as manifestations of Hawaiian deities. The myths and chants relate which natural elements dominated the landscape and the lives of the early Hawaiians.

In his introduction to *Ancient Sites of O‘ahu*, Edward Kanahele explained the relationship of myths about various deities to *wahi pana* (sacred places) throughout the Islands.

As a native Hawaiian, a place tells me who I am and who my extended family is. A place gives me my history, the history of my clan, and the history of my people. I am able to look at a place and tie in human events that affect me and my loved ones. The concept of *wahi pana* merges the importance of place with that of the spiritual. My culture accepts the spiritual as a dominant factor in life; this value links me to my past and to my future, and is physically located at my *wahi pana* (James 1991).

Reviewing the traditional proverbs, chants, and legends of an area allows the reader to understand the overall cultural significance of important places within the district. Sources can be found in places like the Bishop Museum Archives and the Hawaiian Collection at Hamilton Library.

For example, the chant “Ke Ha’al Puna I Ka Makani,” translated by Pualani Kanahele, elaborates on the primal elements and features of Puna which Hawaiians celebrate in all legend, chant, and *hula* (traditional Hawaiian dance) (Kanahele 1992).

*Ke Ha’a La Puna I Ka Makani*

1. Ke ha’a la Puna i ka makani
   Puna is dancing in the breeze

2. Ha’a ka ulu hala i Kea’au
   The hala groves at Kea’au dance

3. Ha’a Ha’ena me Hopoe
   Ha’ena and Hopoe dance

4. Ha’a ka wahine
   The woman dances

“Ke Ha’a La Puna” is the first recorded hula in the Pele and Hi’iaka saga. Hi’iaka performed a hula to this *mele* (chant) to please her older sister, Pele. The chant describes the northeast tradewinds’ interaction with the *hala* (pandanus) forests which historically dominated the landscape of Puna.

Hā’ena, Hōpoe, Kea’au, Nanahuki and Puna are the land sections or land features mentioned in the hula. Puna is the district in which these places are found. Puna is also the land section that inspires hula creation because of the natural movements of waves, wind and trees.

Puna is a center of regenerative power. It is the easternmost district of the Hawaiian islands, the land where the sun first rises. It is the district where the volcano continuously creates new land, and new vegetation comes to life on this newly formed land.

**Precontact History**
In conducting a cultural impact study, one must delve into the record of human settlement and the use of natural resources in the district. Research by archaeologists, anthropologists and ethnographers over the past thirty years suggest that the pre-contact period need to be looked at in five distinct eras. The first period dates between 0 and 600 AD. Based on current subsurface archaeological research on each of the islands, the dates that settlements were established on various islands are continually adjusted, to reflect evidence of settlement earlier and earlier within this period.

Migrations from Polynesia, particularly the Marquesas, continued through the second era. Between 600 and 1100 AD, the population in the Hawaiian Islands primarily expanded from natural internal growth on all of the islands. By 1100 AD, the existing inhabitants of the Hawaiian Islands shared common ancestors and a common heritage. Moreover, these inhabitants had developed a Hawaiian culture and language uniquely adapted to the islands of Hawai‘i, thus making them distinct from other Polynesian peoples. The social system was communal and organized around subsistence production to sustain ‘ohana.

The third period, between 1100 and 1400 AD, marks the era of long voyages between Hawai‘i and Tahiti, introducing major changes in the social system of the Hawaiian people’s nation. The chants, myths and legends record the voyages of great Polynesian chiefs and priests, such as the high priest Pā‘ao, the ali‘i nui (high chief) Mo‘ikeha and his sons Kiha and La‘amaikihiki, and the high chief Hawai‘i Loa. Traditional chants and myths describe how these new Polynesian chiefs and their sons and daughters gradually came to rule over the land, appropriating it from the original inhabitants through intermarriage, battles and ritual sacrifices. The high priest Pā‘ao introduced a new religious system that used human sacrifice, feathered images and walled-in heiau (places of worship). The migration coincided also with a period of rapid internal population growth. Remnant structures and artifacts dating to this time suggest that previously uninhabited leeward areas were settled during this period.

The fourth period dates from 1400 through 1600. Voyaging between Hawai‘i and Tahiti ended. As a result of the external influences introduced by the migrating Polynesian chiefs and priests, and internal developments related to the geometric growth of the population, sophisticated innovations in cultivation, irrigation, aquaculture and fishing were implemented. These innovations were applied in the construction of major fishponds, irrigation systems and field cultivation systems. Such advances resulted in the production of a food surplus which sustained a developing stratification of Hawaiian society into three basic classes – ali‘i (chiefs), kāhuna (priests), and maka‘āinana (commoners). Oral traditions relate stories of warring chiefs, battles, and conquests resulting in the emergence of the great ruling chiefs, who controlled entire islands, rather than portions of islands. These ruling chiefs organized great public works projects that are still evident today. For example, ‘Umi-a-Liloa constructed taro terraces, irrigation systems, and heiau throughout the Island of Hawai‘i, Kiha-a-Pi‘ilani developed the Ala Nui (main trail) on Maui and Ke Ala A Ka Pūpū (shell pathway) on Moloka‘i, Ma‘ilikukahi established his rule over O‘ahu.

In the fifth period, during the century preceding the opening of Hawai‘i to European contact in 1778, the Hawaiian economy expanded to support a population of between 400,000 and 800,000 people. The social system consisted of ‘ohana who lived and worked upon communally held portions of land called ‘ili within the ahupua‘a natural resource system. These families – the building blocks of the Hawaiian social system – were ruled over by the stewards of the land: the chiefs, along with their retainers and priests.

Sources of information about these periods include chants, myths, legends and mo‘oku‘auhau (genealogies). The four Hawaiian scholars – David Malo, Samuel Kamakau, John Papa ʻiʻi, and Kepelino – also provide accounts of this period based upon their oral histories. Abraham Fornander’s collection of Hawaiian antiquities and folklore is also important. Most recently, archaeological reports, most of which were conducted as part of environmental impact studies in conjunction with proposed development, contain a lot of information about these periods. Matthew Spriggs published an inventory of these reports, which are available at the State Historic Preservation Department.

**Migratory Priests and the Chiefs of Puna**

Using the Puna ethnography as an example, one finds that Hawaiian historian Samuel Kamakau provided a brief account of how the high priest Pā‘ao migrated through Puna, Hawai‘i, in the third period between 1100 and 1400 AD. Kamakau wrote:
Puna on Hawai‘i island was the land first reached by Pā‘ao, and here in Puna he built his first heiau for his god Aha‘ula and named it Aha‘ula [Waha‘ula]. It was a luakini [large heiau where human sacrifice was offered]. From Puna, Pā‘ao went on to land in Kohala, at Pu‘uepa. He built a heiau there, called Mo‘okini, a luakini (Kamakau 1991:100).

According to Kamakau, the Island of Hawai‘i was without a chief when Pā‘ao arrived in Hawai‘i. Evidently the chiefs of Hawai‘i were considered ali‘i maka‘āinana (commoner chiefs) or just commoners, maka‘āinana, during this time (Kamakau 1991:100). Pā‘ao sent back to Tahiti for a new ruler for Hawai‘i, thereby ushering in a new era of ruling chiefs and kāhuna for the Hawaiian archipelago. The new ruler was Pili-ka‘aiaea, from whom King Kamehameha I eventually descended. Kamakau, Fornander and Thrum place Pā‘ao in the eleventh century.

The Ruling Chiefs of Puna

Puna’s political history throughout the period of the ruling chiefs is bound up with the fortunes of the ruling families of Hilo and Ka‘ū. No single family emerges as the one whose support the chiefs seeking power had to depend upon for success. Thus, the political control of Puna did not rest upon conquering Puna itself, but rather upon control of the neighboring districts of Ka‘ū and Hilo (Barrere 1959:15).

Nevertheless, there are two notable Puna chiefs in this era, Hua‘a and ‘Īmaikalani, both identified as enemies of high chief ‘Umi-a-Liloa and killed by him and his warriors.

The chiefs and priests conspired with ‘Umi-a-Liloa, Hākau’s half-brother, and killed Hākau. Hākau’s death left ‘Umi in possession of Hāmākua. The chiefs of the remaining districts of Hawai‘i declared themselves to be independent of ‘Umi. ‘Umi conquered those chiefs who resisted him and reunited the districts of the entire island under his rule. Hua‘a, the chief of Puna, was conquered by ‘Umi-a-Liloa. Kamakau offers this account:

Hua‘a was the chief of Puna, but Puna was seized by ‘Umi and his warrior adopted sons, Pi‘i-mai-wa‘a, ‘Oma‘o-kamau, and Ko‘i. These were noted war leaders and counsellors during ‘Umi’s reign over the kingdom of Hawai‘i. Hua‘a was killed by Pi‘i-mai-wa‘a on the battlefield of Kuolo in Kea‘au, and Puna became ‘Umi-a-Liloa’s (1992:17-18).

Puna on the Eve of European Contact

On the eve of European contact, Puna seemed to have enjoyed a brief resurgence of semi-autonomous rule. Two generations after Keawe, in the time of Kalani‘opu‘u, l-maka-koloa became powerful enough to warrant the wrath of high chief Kalani‘opu‘u.

Again, Kamakau offers an account:

Ka-lani‘opu‘u the chief set out for Hilo with his chiefs, warriors, and fighting men, some by land and some by canoe, to subdue the rebellion of l-maka-koloa, the rebel chief of Puna. [...] The fight lasted a long time, but l-maka-koloa fled and for almost a year lay hidden by the people of Puna. [...] “Go with your god,” said the chief. Puhili went until he came to the boundary where Puna adjoins Ka‘u, to ‘Oki‘okiah in ‘Apua, and began to fire the villages. [...] When one district (ahupua‘a) had been burnt out from upland to sea he moved on to the next [...] thus it was that he found l-maka-koloa where he was being hidden by a woman kahu on a little islet of the sea. [...] I-maka-koloa was taken to Ka-lani‘opu‘u in Ka‘u to be placed on the altar as an offering to the god, and Kiwala‘o was the one for whom the house of the god had been made ready that he might perform the offering. [...] Before he had ended offering the first sacrifices, Kamehameha grasped the body of l-maka-koloa and offered it up to the god, and the freeing of the tabu for the heiau was completed (1992:108-09).

The stage was therefore set for the usurpation of Kiwala‘o as heir to his father, high chief Kalani‘opu‘u, by Kamehameha, in the period after European contact.
Contact and the Evolution of the Monarchy

The next distinct period of research for the cultural ethnographer is the relevant district’s history of change in the use and tenure of the lands. The responses of the Hawaiian people to contact and change after 1778 were divergent and largely influenced by the individual social and economic roles they played in society. The acceptance or rejection of Western culture was largely the prerogative of the ruling class of aliʻi.

By 1840, King Kamehameha III transformed the government into a constitutional monarchy, having signed a Bill of Rights in 1839 and a Constitution for the Kingdom of Hawai‘i in the following year. Ka Māhele (The Land Division) in 1848 established a system of private land ownership which concentrated 99.2 percent of Hawai‘i’s lands among 245 chiefs, the Crown, and the Government. Less than one percent of the lands were given to 28 percent of the people, leaving 72 percent of the people landless. In 1850, over the protests of Hawaiians, foreigners were given the right to own land. From that point on, foreigners, primarily Americans, continued to expand their interests, eventually controlling most of the land, sugar plantations, banks, shipping, and commerce of the Islands (Kuykendall 1980; McGregor 1985).

Control of the Crown and Government lands changed with the overthrow of the Hawaiian monarchy in 1893. The Republic of Hawai‘i opened lands for 999 year homesteads under the 1895 Homesteading Act. By 1898, there remained only 1.8 million acres out of the original 2.4 million acres of Crown and Government lands. The Republic of Hawai‘i ceded these 1.8 million acres to the US government without any compensation to, or consent from, the Hawaiian monarchy or the Hawaiian people, and without a referendum.

Puna at Contact and under the Monarchy

Again, Puna’s ethnohistory provides an excellent example of the kinds of sources available to reconstruct the history of the land and the traditional and customary uses by native Hawaiians of its natural resources. The documents include the journals of explorers and missionaries, government records of the Kingdom of Hawai‘i such as the census, tax records, indices of land awards, the record of Native Testimony to the Board of Commissioners to Quiet Land Titles, the Boundary Review Commission proceedings and Thrum’s Hawaiian Annual.

The surgeon, David Samwell, and Lieutenant King, British officers on Cook’s voyage, provided the first written accounts of Puna. King wrote:

On the southwest extremity of Opoona the hills rise abruptly from the sea side, leaving but a narrow border, and although the sides of the hills have a fine verdure, yet they do not seem cultivated (quoted from Beaglehole 1967:606).

Samwell observed:

Many people collected on the Beach to look at the Ship [...] many Canoes came off to us [with] a great number of beautiful young Women (quoted from Beaglehole 1967:1156).

The first missionary to journey through Puna was William Ellis, in 1823. In his published journal, he described the natural resources available to the residents of the district and some of their living conditions, subsistence and exchange practices.

Kaimu is pleasantly situated near the sea shore, on the S.E. side of the island, standing on a bed of lava considerably decomposed, and covered over with a light and fertile soil. It is adorned with plantations, groves of cocoa-nuts, and clumps of kou-trees. It has a fine sandy beach, where canoes may land with safety; and, according to the houses numbered to-day, contains about 725 inhabitants (Ellis 1963:196).

We reached Kaau [Keaʻau], the last village in the division of Puna. It was extensive and populous, abounding with well-cultivated plantations of taro, sweet potatoes, and sugar-cane; and probably owes its fertility to a fine rapid stream of water, which, descending from the mountains, runs through it into the sea (Ellis 1963:212).
The district of Puna is distinguished as one of the least awarded private lands from the 1848 Māhele and Kuleana Act. Only 19 awards of private land were made in the entire district. Of these, 16 awards were made in large tracts to 10 chiefs who lived outside of Puna, and three small parcels were granted, to commoners Baranaba, Hewahewa and Haka (Territory of Hawai‘i 1929).

The small number of land awards was not because Puna had a small population. In 1854, four years after the Kuleana awards were granted, the estimated population for Puna was 2,702 (Hawaii Mission Children’s Library 1854). Moreover, the 1858 tax records for Puna shows that 894 males over the age of 20 paid poll taxes in Puna ten years after the deadline for filing for land awards (Hawai‘i State Archives 1858).

An examination of the possible reasons why almost the entire population of Puna did not enjoy the benefits of the Māhele and Kuleana Act lends an understanding of why Hawaiians living in the district remained outside of the mainstream of Hawai‘i’s economic and social development. First, Puna was isolated from the mainstream of economic, social and political developments. It is possible that the Hawaiians in Puna were not aware of the process or did not realize the significance of the new law. Second, it is possible that the Puna Hawaiians did not have a way to raise the cash needed for the land surveys, which cost between $6 to $12. Wages at the time were normally between 12 1/2 cents and 33 cents a day. However, there were few wage-earning jobs in Puna. Cash would have to be raised from selling extra fish or other products, which was difficult given the subsistence living of many Hawaiians. Third, at least some Puna Hawaiians filed their land claims after the deadline. In an 1851 petition to the legislature, several Puna residents asked to be issued land grants without penalty, as they had filed their claims after February 14, 1848 (Allen 1979).

Under the Māhele, the bulk of Puna lands were designated as public lands either to the monarchy, as “Crown” lands or to the government of the Hawaiian Kingdom. With the break-up of the traditional land and labor system by the establishment of private property, Hawaiians were pushed into the market economy to earn cash to purchase, lease, or rent land and to pay taxes. In Puna, the primary resources for commercial sale were the coastal fisheries, salt, pulu (the hairy fibers from the hāpu‘u fern), ʻohiʻa timber, and open land for cattle and goat grazing.

Isaac Davis traveled around Hawai‘i to conduct an assessment of the Crown lands. Of the Crown lands in Puna, he wrote in 1857:

Apua, Ahupuaa in Kau, I do not know the extent of this land, not at the sea shore, but, on making observation, there is a lot of stone on that land, Kapaahea’s man told me that salt is the only product on this land, but it is very little. And I called the natives to lease it, but there was no one wanted it, and no one made a reply (Hawai‘i State Archives 1857).

Pulu processing became an industry in Puna in 1851. Pulu is the soft, downy material which covers the shoots of the hāpu‘u (tree fern). It was used for mattresses, pillows, and upholstery. At its peak in 1862, Hawai‘i exported 738,000 pounds of pulu worldwide to San Francisco, Vancouver, Portland and Australia. It sold for 14 to 28 cents a pound. A total of $103,000 to $207,000.

In 1860, Abel and C. C. Harris and Frank Swain leased the ahupua‘a of Pānau for the hāpu‘u on the land. Kaina and Heleluhe requested government leases on Lāeʻapuki and Pānauikī. Kaina maintained two pulu picker camps, one near Makaopuhi Crater and the other near the present Keauhou Ranch Headquarters. Pulu was collected, processed, and dried at these camps and then hauled down the pali (steep hill) on mules to Keauhou Landing.

In an article in 1929, Thomas Thrum suggested that the pulu industry broke up homes and dispersed the Hawaiians:

The sad part of the story lies in the fact that the industry caused homes in various sections to be broken up, the people moving up into the forests to collect the pulu. In many cases whole families were employed, who provided themselves with rude shelter huts meanwhile, to live long periods at a time in damp, if not actually rainy quarters, without regular and proper food, that resulted in colds and illness (1929:82).

In June 1873, the Boundary Commission conducted hearings to settle the boundaries of the privately held lands in the ahupua‘a of Kea‘au in the district of Puna. Uma, a native Hawaiian born at Keauhou in Kea‘au “at the time of the return of Kamehameha Ist from Kaunakakai, Molokai,” provided
testimony which included descriptions of the natural features and resources in the area and the activities of Hawaiians in the district.

I have always lived there and know the boundaries between Keaau and Waikahekahe. My parents pointed them out to me when we went after birds and sandalwood. Waikahekahe Nui joins Keaau at the sea shore at Kaehuokaliloa, a rock that looks like a human body [...] thence the boundary runs mauka [upland] to a place called Koolano, the pahoehoe on the North side is Keaau and the good ground where cocoanut trees grown is on Waikahekahe. In past days there was a native village at this place. Thence mauka to Haalaaniani (Ke Kupua) when the old road from Kalapana, used to run to Keaau thence the boundary runs to Wahikolae, two large caves, the boundary runs between them thence mauka, to another cave called – Oliolimanienie, where people used to hide in time of war. [...] Keaau on the Hilo side of the road running mauka, thence to Kikihui, an old Kauhale [living compound] for bird catchers, thence to Hoolapehu, another old village, thence to Alaalakeiki, which is the end of Waikahekahe iki and Kahaualea joins Keaau. This place is at an old Kauhale manu [birdcatcher’s compound]. [...] from the Hilo Court House to the Government School house, thence mauka to KeeKee; Kauhale kahi oloa [olonā fiber combing compound] in Olaa, the boundary is a short distance from the Government road, on the South East side [...] the sea bounds Keaau on the makai side, ancient fishing rights, including the Uhu which was konohiki fish extending out to sea (Hawai‘i State Archives 1914).

In Puna, Joseph Nawahi, a founder of the Hui Aloha Aina (Hawaiian Patriotic League) had a strong following of royalists. On May 23, 1893, four months after the overthrow of the Hawaiian monarchy, the Reverend Rufus A. Lyman, patriarch of the Lyman Estate which now owns substantial landholdings in Keahialaka and Kapoho, wrote to his colleague, M. Whitney in Honolulu, suggesting that the Provisional Government open up Government and Crown lands for homesteading by Hawaiians as a means of winning the support of Hawaiians and undermining the influence of Nawahi in the district. He wrote:

Here in Puna there are only three Crown Lands Ola‘a, Kaimu and Apua next to the Kau boundary. The Govt. lands are scattered all through District, and large tracts near the villages especially Ophihiko, Kamailli, Kehena, and not under lease. And there are quite a number of young men there with families who own no land, who will probably remain in Puna and cultivate coffee, kalo, oranges, etc., if you get them settled on land they can have for homes for themselves. Nine of them have commenced planting coffee on shares for me. Puna has always been Nawahi’s stronghold, and I want to see his hold on natives here broken. And I think it would help do it, if we can show natives here that the Govt. is ready to give them homes, and to improve the roads.

In 1894, the Provisional Government set up the Republic of Hawaii, which instituted a program of opening up Government lands for homesteading under the Land Act of 1895. In Puna, as Lyman had predicted in his letter to Whitney, homestead grants were quickly purchased and the land cultivated for coffee. Coffee acreage expanded from 168 acres in 1895 to 272.5 in 1899 in ‘Ōla‘a and Pāhoa (Thrum 1895, 1899).

Territorial Years

From 1900 through 1959, Hawai‘i was governed as a territory of the United States. The history of the land and its traditional and customary uses by native Hawaiians throughout this period can be augmented by oral history and key informant interviews.

During the territorial years, an elite group of Americans, who were the owners and managers of what was called the Big Five, had monopoly control over nearly every facet of Hawai‘i’s economy. They controlled the sugar plantations, shipping, banking and commerce. At the turn of the century, irrigation systems, such as the Waiahole Ditch system on O‘ahu, transformed the land and displaced many Hawaiian taro farmers dependent upon the free flow of the water.

The Crown and Government lands were managed by the territory of Hawai‘i as the Ceded Public Lands Trust. In 1921, the Hawaiian Homelands Act was passed. Under this act, the US Congress set
aside 200,000 acres of the Ceded Public Lands Trust for exclusive use by native Hawaiians for homesteading. Annual reports of the territorial Governor to the President of the United States describe the condition and status of the ceded public lands and the Hawaiian homelands.

During this period, close to half of the native Hawaiian population did not assimilate into the developing mainstream economy. Instead, they remained in remote valleys and isolated rural pockets, providing for their large families through subsistence farming and fishing. During this period, a major distinction internal to the Hawaiian community evolved between urban Hawaiians, who assimilated and accommodated to the socio-economic system dominated by the American elite, and rural Hawaiians or *kuaʻaina* who remained in the back-country areas, maintaining a traditional Hawaiian way of life.

World War II ushered in major changes in the social, economic, and political life of the Islands. Many Hawaiians left their rural enclaves to join the service or to work in high-paying military jobs in Honolulu. The military were also stationed in rural areas throughout the Islands.

**Puna under the Territory of Hawaii**

Puna remained a rural district throughout the territorial period. Economic development centered near the scarcely populated inland forest areas around the towns of Pāhoa and ‘Ōla’a. A multi-ethnic plantation community also developed in and around these towns as immigrant Japanese, Puerto Rican and Filipino laborers were imported to work on the developing sugar plantations. Hawaiian families, however, continued to live in small isolated villages along the coastal areas in lower Puna, particularly around Kalapana.

The ethnohistory of Puna for this period draws upon documents from the territorial government; visitor guide books; magazines; newspapers; monographs such as E. S. Craighill Handy’s *Native Planters in Old Hawai‘i* and documents in the Hawai‘i Volcano National Park Headquarters Library. Oral history and key informant interviews (such as the Kalapana Oral History Project and interviews by Russell Apple) are important sources of information about the lifestyles and livelihoods of the Puna Hawaiians. Table 1 (below) indicates changes in the Puna population for the following years:

**Table 1: Census of Puna 1900 to 1960**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>5,128</td>
</tr>
<tr>
<td>1910</td>
<td>6,634</td>
</tr>
<tr>
<td>1920</td>
<td>7,282</td>
</tr>
<tr>
<td>1930</td>
<td>8,284</td>
</tr>
<tr>
<td>1940</td>
<td>7,733</td>
</tr>
<tr>
<td>1950</td>
<td>6,747</td>
</tr>
<tr>
<td>1960</td>
<td>5,030</td>
</tr>
</tbody>
</table>

Source: Matsuoka et al. (1996:57; Table 7).

The Puna Sugar Company was established in 1900 in Kapoho. The lowland forest was cleared for cane fields and railroads were built. Puna Sugar expanded around Pāhoa and ‘Ōla’a.

At the turn of the century, coffee was still an important agricultural industry in Puna. The Shipman family, a major landowner in the district, ran the Shipman Ranch in Kea‘au. The pineapple industry was started for export to California. In 1908, the Hawaiian Mahogany Company erected a lumber mill in Pāhoa and sent out its first shipment of 20,000 ʻōhiʻa (native tree) log ties to the Santa Fe Railroad. In 1910, the company became the Pahoa Lumber Mill and obtained cutting rights to 12,000 acres of Territorial Forest in Puna (Skolmen 1976)

Economic development in the district during the territorial years centered at ‘Ōla’a, with a ranch and a sugar plantation, and around Pāhoa with the ʻōhiʻa and koa (largest native tree) lumber operations. Lower Puna was described as remaining predominantly a traditional Hawaiian subsistence area. In a visitor’s guide book, *The Island of Hawaii*, Henry Walsworth Kinney provided the following descriptions of Kaimū and Kalapana:

At the beach the road enters first the village of KAIMU, exclusively Hawaiian, with a large grove of cocoanut trees surrounding a fine semi-circular sand beach. [...] Less than a mile further on, westwards, lies the village of KALAPANA, one of the largest Hawaiian villages in the Islands.
There are no white inhabitants, and only a couple of Chinese stores. [...] KALAPANA still supports quite a large population, and is a very pretty village, having, like all the Puna coast villages, a fine growth of cocoanuts, puhala and monkeypod trees (Kinney 1913:77).

According to the Kalapana Oral History Project transcripts, the majority of the food of Hawaiians in Puna throughout the territorial period continued to be home-produced. ‘Uala (sweet potatoes), kalo (taro), and ‘ulu (breadfruit) were the main staples. Seafood, especially fish, ‘opihī (limpet) and limu (seaweed) were the main proteins. Chickens, pigs and cattle were raised. Pigs and goats were hunted, and the meat was usually smoked. Some households kept cows for milk and even made butter. When cash was earned, special items from the store, such as flour, sugar, tea, coffee and rice could be bought.

Sweet potato was usually grown around the home. Families also grew chili pepper, onion, and sometimes pumpkin, watermelon, tomato or cucumber. Families in Kalapana usually had a taro patch up in the hills, sometimes three or more miles from their houseslots. E. S. Craighill Handy wrote that in 1935 when he toured Puna to appraise the old native horticulture, “One energetic Hawaiian of Kapa‘ahu had cleared ‘ōhi‘a forest, at a place called Kaho‘onohood about 2.5 miles inland, and had a good stand of taro, bananas, and sugar cane in two adjacent clearings” (Handy, Handy and Pukui 1972:541).

Pigs were allowed to run free. To keep pigs tame and near the home, Hawaiians fed them sweet potato vines and tubers after papayas, mangos, or breadfruit were harvested. Each family had its own way of marking its pigs by notching or slitting the ears or cutting the tail. Some pigs went wild and wandered up the Kilauea mountain, even above the zone where the families cultivated taro. These were hunted with dogs.

In 1932, a new force entered the lives of the Kalapana people. The Hawai‘i Volcanoes National Park, urged on by the Governor’s office, the Hawai‘i County Board of Supervisors and prominent citizens, proposed expanding the park to include all of the land from ʻĀpua over to Kaimū Black Sand Beach. The people in Kalapana strongly opposed the proposal. Russell Apple interviewed Edward G. Wingate, who served as superintendent of the Hawai‘i Volcanoes National Park, at the time of the proposed acquisition. Wingate said that he supported the Hawaiians in Kalapana and felt it was wrong of the Federal Government or the park service to dispossess the Hawaiians of their homes, their land, and their traditional way of life. A compromise was reached. The Hawai‘i Volcanoes National Park would expand to include the six ahupua‘a of ʻĀpua, Kahue, Kealakomo, Pānaunui, Lae‘apuki and Kamoamoa, parts of Pūlama and Poupou, and Keauhou in the Kaʻū district. However, the lands from Kalapana over to Kaimū were deleted from the extension proposal.

Under the New Deal, federal programs created new jobs for Kalapana men. The federal government funded a county project to improve Kalapana Park and various roadbuilding projects in Puna. The Civilian Conservation Corps (CCC) established a camp for young single men at Volcano. They cut trails, built stone walls, and were trained in carpentry skills. As military construction expanded in Honolulu in preparation for a war with Japan, Honolulu became a boom town, attracting workers from the mainland and from the neighbor islands. Many from Kalapana moved there on the eve of the war (Langlas 1990:92-94).

World War II had a profound effect on Hawai‘i. In Puna, those who remained behind were made to fear a Japanese invasion by sea. The coastline was watched and guarded by soldiers stationed in the Kalapana area. Observation points were set up at Panau and at Mokuhulu. The beach at Kaimū and Kalapana was strung with barbed wire to stave off an enemy landing. Initially the Kalapana people were not supposed to go through the wire, but eventually the soldiers let the people crawl through to fish or collect seafood at the beach. There was a nightly curfew, and blackout curtains were used, because not a single glimmer of light was supposed to be seen.

There were 100 to 150 soldiers stationed in Kalapana who rotated every three months. Some camped in tents on Kaimū beach and Kalapana beach, some lived in the school cafeteria, and others in the gym and the priest’s house at the Catholic Church.

During the war, men still grew taro, but many were already in their sixties. With the end of the war, they were getting too old to grow taro and make poi (taro paste). Many younger men had left during the war. Those remaining in Kalapana got jobs on the outside, thus leaving little time for taro cultivation. During the thirties fewer canoes went out to catch ‘opelu (mackerel scad). The last canoe which went out from Kaimū was that of Simon Wai‘au Bill. When he got too old, in the late 1930s, no more went out. Younger men were busy going to school or going out to work to learn the technique of catching ‘opelu. A couple of canoes from Kalapana continued going out even after the war. Eventually, a boat ramp was constructed at Pohoiki, east of Kalapana, and the canoes were replaced by motorboats.
Other forms of subsistence production continued after the war, such as pole-fishing from shore, gathering limu, ʻōpihi and crab or raising stock. Hunting of wild pigs remained an important source of meat. Native plants were gathered for herbal teas and medicine.

Statehood

Statehood stimulated unprecedented economic expansion in Hawai‘i. The number of hotel rooms more than tripled, and the number of tourists increased fivefold within the first ten years. Pineapple and sugar agribusiness operations were phased out and moved to cheaper labor markets in Southeast Asia. The prime agricultural lands which remained were developed into profitable subdivision, condominium, and resort developments.

Changes to the rural and agricultural areas concerned all of Hawai‘i’s local people. However the Hawaiian community, because of its traditional concentration in rural pockets, were especially affected. Historically, the special relationship of Hawaiians to the land and their spiritual ancestors remained strongest where foreign penetration and the market economy was the weakest. Traditional Hawaiian beliefs, customs, and practices were part of the day-to-day lives of the people in these districts. These districts offer rich resources for understanding the continuity of Hawaiian subsistence, culture and religion.

The social significance of traditional Hawaiian rural communities for the perpetuation of native Hawaiian society may be compared to a phenomenon in nature. Botanists who study the natural rainforest in the area of the active Kīlauea volcano have observed that eruptions which destroy and cover up large areas of forest lands, leave little oases, kīpuka, of native trees and plants in their wake. From these natural kīpuka come the seeds and spores for the eventual regeneration of native flora upon the fresh lava. For contemporary Hawaiians, traditional Hawaiian rural communities are cultural kīpuka from which Hawaiian culture can be regenerated and revitalized in the contemporary setting. The Puna district of Hawai‘i is such a cultural kīpuka.

Puna, a Twentieth-Century Cultural Kīpuka

The Hawaiian community of Puna, particularly the lower part, remains distinct, geographically, culturally, and socially. There is still a significant group descended from the first families who migrated to and settled in the district. They have a strong tradition of perseverance in a district that has constantly changed and evolved. There is also a growing number of young Hawaiian families moving into Puna from Hilo, Honolulu, and other neighbor islands. Most have moved into the non-standard subdivisions which opened up in the district beginning in 1958. In 1980, 1,334 Hawaiians lived in Puna, out of which 75 percent or 1,001 resided in Lower Puna. Between 1980 and 1990, the number of Hawaiians in Puna nearly tripled to 3,953.

Native Hawaiian residents in the district supplement their incomes from jobs or public assistance by engaging in subsistence fishing, hunting, and gathering for the households of their ʻohana. The fishermen, hunters and gatherers utilize and exercise their traditional access to the ocean offshore of the Puna district and the adjacent māku a forest lands. This forest area affords access to middle elevation plants and resources for Hawaiians who live in each of the ahupua‘a of the Puna district.

Native Hawaiians of the district utilized the forests of Puna from generation to generation to gather maile (shrub with shiny fragrant leaves), fern, ʻieʻie (climber), ʻohiʻa and other such native plants for adornment, weaving, and decoration. They also gathered plants such as koʻokoʻolau (beggar ticks), māmaki (small native tree), and noni (Indian mulberry) for herbal medicine.

Due to the alteration and degradation of low and middle elevation forests in other parts of the Island of Hawai‘i and the public status of the forests in Puna, Hawaiians from other parts of the island and from Oʻahu also regularly gathered liko lehua (red leaves), maile, fern, ʻawa (kava), and other native plants for hula and láʻau lapaʻau (traditional Hawaiian herbal healing) purposes from this forest.

A survey of the role of hunting in the Kalapana-Kaimū Hawaiian community under the University of Hawai‘i departments of Geography and Anthropology and the School of Public Health in 1971 revealed that hunting in the forests mauka of Kalapana-Kaimū, which would be the Puna Forest Reserve, was an important part of subsistence for the Hawaiian households of the area. Despite the fact that there were not hunters in every household, many households benefited from the hunting activities, because the meat was shared among extended family members and friends (Bostwick and Murton 1971).
In 1982, the US Department of Energy commissioned a study by the Puna Hui ʻOhana, an organization of Hawaiian families in Puna. The 1982 survey by the Puna Hui ʻOhana of 85 percent of the adult Hawaiians in lower Puna (351 out of 413 adult Hawaiians) showed that 38 percent of those surveyed engaged in traditional subsistence hunting in the adjacent forests. It also showed that 48 percent of those surveyed gathered medicinal plants and 38 percent gathered maile in the nearby forests for household use.

Informant interviews, conducted in 1994 with older and younger Hawaiian families in the district, likewise revealed the ongoing continuity of subsistence farming, fishing, and gathering and the associated cultural customs and beliefs.

A wealth of knowledge is still kept alive and practiced by living generations of Hawaiian families in Puna. Moreover, this living culture is constantly undergoing growth and change.

Conclusion

The ethnohistory of a district such as Puna can be developed from a wide variety of written sources. Such an ethnohistory provides an important foundation and reference point for understanding Hawaiian customs and practices.

Nevertheless, cultural impact studies, to be complete, need to go beyond the written record and include interviews with key informants who are members of Hawaiian ʻohana and traditional hālau (cultural groups) who live in the area and have established a relationship of stewardship for the cultural and natural resources of the area.

For Puna, rich ethnohistorical written sources were complemented by interviews and focus group discussions and participatory mapping with Hawaiian families, members of hālau, and other cultural groups. All the information gathered was combined into the final report on the impact of geothermal energy development on the cultural beliefs, customs, and practices of Puna Hawaiians.

Eventually, the gathering and hunting rights of Puna Hawaiians were recognized by the Hawai’i State Supreme Court, and the Hawai’i Geothermal Project was discontinued.

Notes

1 McGregor (1993) reviews the issues of contention between the Pele practitioners and the advocates of geothermal energy.

2 Oak Ridge National Laboratory received the contract to conduct the Environmental Impact Study. Professor Jon Matsuoka of the School of Social Work; Professor Davianna Pōmaiaka’i McGregor of the Ethnic Studies Department; and Professor Luciano Minerbi of the Department of Urban and Regional Planning, all from the University of Hawai’i at Mānoa (UHM), were contracted to conduct the Cultural Impact Study. They in turn contracted Pualani Kanahele of the Hawai’i Community College Hawaiian Studies Department; Marion Kelly of the Ethnic Studies Department, UHM; and Noenoe Barney-Campbell, a lab leader in the Ethnic Studies Department, UHM, to assist in the research (Matsuoka et al. 1996).

3 This summary of the actions of the Hawai’i State Supreme Court regarding native Hawaiian gathering and access rights is taken from the PASH/Kohanaiki ruling. In footnote 34, Judge Klein wrote: “These arguments are supported by the affidavits of Dr. Davianna McGregor, an Assistant Professor of Ethnic Studies at University of Hawai’i at Manoa, and Emily Naeole and Clarence Hauanio, PDF [Pele Defense Fund] members of more than 50% Hawaiian blood and residents of Maku’u and Kalapana, ahupua’a abutting Wao Kele O Puna” (Supreme Court of Hawai’i 1995).

4 Chapter 7-1 of the Hawai’i Revised Statutes (State of Hawai’i 1985):

Where the landlords have obtained, or may hereafter obtain, alodial titles to their lands, the people on each of their lands shall not be deprived of the right to take firewood, house-timber, aho cord, thatch, or ki leaf, from the land on which they live, for their own private use, but they shall not have a right to take such articles to sell for profit. The people shall also have a right to drinking water, and running water, and the right of way. The springs of water, running water, and
roads shall be free to all, on all lands granted in fee simple; provided that this shall not be applicable to wells and watercourses, which individuals have made for their own use.

Article XII, Section 7, in the State Constitution (State of Hawai‘i 1978):

The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua‘a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.

Chapter 1-1 of the Hawai‘i Revised Statutes (State of Hawai‘i 1985) provides that:

The common law of England, as ascertained by English and American decisions, is declared to be the common law of the State of Hawai‘i in all cases, except as otherwise expressly provided by the Constitution or laws of the United States, or by the laws of the State, or fixed by Hawaiian judicial precedent, or established by Hawaiian usage.

5. The following translation and interpretation of the chant is excerpted from the report by Ms. Kanahele with her permission.

6. These periods are discussed and summarized by Kirch (1985) and Chun and Spriggs (1987). Other sources for dating these periods are Fornander (1916-20); Beckwith (1970); Kamakau (1964, 1976, 1991, 1992) and King Kalākaua (1973).

7. The estimate from Cook’s voyage was 400,000 (Beaglehole 1967). Recent studies by David Stannard (1989) place the pre-contact population as high as 800,000.

8. Seven lands in Puna were left unassigned during the Māhele – Kahue, Huluna-nai, liiiloa, Kaunaloa, Ki (B), Keekee, and Keonepoko 2. In 1888 it was decided that these would be Government lands (Allen 1979).


10. “Kua‘āina” is translated in the Pukui/Elbert Hawaiian Dictionary (1986) as person from the country. It means the backbone of the land. These are the people who bent their back, toiled and sweat to care for the land and now stand upright to protect the natural resources of the land.

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