

# PUNA HISTORIC TRAIL

# Historic Context Study

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Prepared by:



**TOWNSCAPE, INC.**  
Environmental & Community Planning

Prepared for:



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## Table of Contents

List of Figures .....	ii
List of Tables .....	ii
PART 1: Introduction .....	1
1.1 Purpose of this Report .....	1
1.2 Nā Ala Hele .....	1
1.3 Description of the Trail .....	2
1.4 Geographic Setting .....	3
1.5 Previous Studies Funded By DOFAW .....	3
PART 2: Historic/Cultural Context .....	6
2.1 Mo'olelo .....	6
2.1.1 Pele, Hi'iaka, and Hōpoe .....	6
2.1.2 Māmalahoe Kānāwai .....	7
2.1.3 Nēnē .....	7
2.2 Sacredness .....	8
2.3 Archaeological Resources .....	9
2.3.1 Pākī Petroglyphs .....	11
2.4 Cultural Resources .....	11
2.4.1 Consumption .....	12
2.4.2 Conservation .....	12
2.4.3 Ceremony .....	12
2.5 History of the Puna Trail .....	13
PART 3: References .....	15

## List of Figures

Figure 1. Trailhead for the Puna Trail .....	2
Figure 2. Erosion on the trail due to illegal vehicle use.....	2
Figure 3. Historic rock wall built using the traditional ‘alā.....	2
Figure 4. "S.K. Puukohola" etched into the lava at Pākī (from Maly, 1999).....	11

## List of Tables

Table 1. Registered historic sites along the Puna Trail from Maly (1999).....	9
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# **PART 1: Introduction**

## **1.1 Purpose of this Report**

This Historical Context Study for the Puna Historic Trail provides a comprehensive understanding of the historical significance and cultural heritage associated with this ancient trail system. It includes information based on a review of existing publicly available sources. This report aims to highlight the historic timeline of the trail itself as well as some of the Hawaiian cultural sites and stories associated with the area. Understanding the history of the trail allows for education and interpretation of the historic trail. Additionally, knowing its significant sights and stories guides future management and preservation actions associated with the trail. This report will help to lay the foundation for the Stakeholder Action Plan.

## **1.2 Nā Ala Hele**

Ala hele and ala loa were the traditional trails and major thoroughfares throughout Hawai'i. They connected various landscapes both along the coast as well as from mauka to makai. These trails ran across all sorts of terrain, from 'a'ā lava flows to sandy beaches and along streams to cliff edges. They allowed kānaka to move between different parts of the island to gather various resources and conduct religious practices. These trails remained foot paths for hundreds of years before Western contact, as there was no other method of land travel at the time. With the introduction of animals in the early to mid-1800s, many traditional foot trails were modified to accommodate horses and mules. Main routes would eventually be even further modified for vehicle use. Many roads that exist in Hawai'i today follow the original alignment of the traditional foot path that came before it.

With Hawai'i facing outside development pressures in the mid-1900s, there was a growing concern over lack of public access routes. In 1988 in response to this concern, the Nā Ala Hele Trail and Access Program was established. The Nā Ala Hele Trail and Access Program falls under the State Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife (DOFAW). Nā Ala Hele's purpose is "to preserve and perpetuate the integrity, condition, naturalness, and beauty of the trails or accesses surrounding the area, to protect cultural and environmental resources, to provide safety for trail and access users, to preserve the quality of the intended experience for trail and access users, to mitigate conflicts between competing activities and users, to ensure public access, and to regulate commercial activity," as established in Hawai'i Administrative Rules (HAR) §13-130.

Nā Ala Hele manages the 2.9-mile Puna Historic Trail. Their role is to ensure public and *pono* access on these historic trails by maintaining the integrity of the trail, educating users of the trail, and reporting illegal activity along the trail to the Division of Conservation and Resources Enforcement (DOCARE), DLNR's enforcement agency. Nā Ala Hele has also recently secured funding to hire trail stewards for the Puna Historic Trail. The role of the trail stewards will be to assist with interpretation of the trail and its historic features, inform hikers about safety hazards and boundaries for public access, and collect daily trail user data.

### 1.3 Description of the Trail

The Puna Historic Trail (Puna Trail) begins at the end of Beach Road in the Hawaiian Paradise Park subdivision. The road leads into a gravel parking lot that can accommodate approximately eight cars. The entrance to the parking lot is gated, however, the gate currently remains open continuously throughout the day and night. On the makai side of the parking lot, large boulders separate the lot from the beginning of the Puna Trail. There is a sign at the trailhead that displays trail specifications and interpretive information about the trail.



Figure 1. Trailhead for the Puna Trail



Figure 2. Erosion on the trail due to illegal vehicle use.

The trail begins on exposed pāhoehoe lava, the very same lava flow that destroyed Hōpoe (see section 2.1.1: *Pele, Hi'iaka, and Hōpoe*). There is a relatively open canopy over the trail, with few tall trees that block the sunlight. After roughly 0.25 miles of hiking, the path turns into a dirt trail underneath a canopy of invasive trees. The trail varies in width, from roughly six feet to 20 feet wide; however, the actual Right-of-Way is only 10 feet wide. Illegal vehicle use has significantly eroded sections of the trail. This has caused the trail to widen as hikers make new paths to go around these muddy areas.

Along the trail are a few historic rock walls that were used for animal enclosures back in the late 1800s. You can see areas where the 'alā, the waterworn stones traditionally used for paving, were taken from the trail and used to build portions of the rock walls. There are also remnants of historic paving and curbing along portions of the trail. Additionally, there are pockets of native plants, including hala, 'ōhi'a lehua, hau, niu, laua'e, and uluhe, that can be found along the trail.

There are no beaches along the shoreline, just a long stretch of cliff, until you reach Hā'ena Bay. Along the cliff, pole holders cemented into the rocks mark



Figure 3. Historic rock wall built using the traditional 'alā.

popular fishing spots for local subsistence fishermen. The cliffs carry an abundance of hā'uke'uke. According to local residents, there also used to be lots of 'opihi along the cliff. But with pressures of overharvesting, the population hasn't been able to recover.

Hā'ena Bay is relatively small with limited space for relaxing on the sand. Additionally, there are many turtles and an occasional monk seal that compete with visitors for a spot on the beach. Water from the spring-fed fishpond empties out into the bay, which is mostly protected by rocks, but has one small outlet at the northern end. This small channel produces a strong current that has swept some swimmers, who are unfamiliar with the bay, out into the ocean beyond.

## 1.4 Geographic Setting

The Puna Historic Trail is situated on the east side of the island of Hawai'i, in the district of Puna, in the ahupua'a of Kea'au. Kea'au encompasses 64,275 acres, making it the largest ahupua'a in all of Puna. Kea'au translates to "hindering current," which likely could be describing the strong current of Hā'ena Bay. Two 'ōlelo no'eau from Pukui (1983) highlight some of the significant features of Kea'au, including the groves of hala and the noisy sea:

**Ka ua kāhiko hala o Kea'au.**  
*The rain that adorns the pandanus  
trees of Kea'au.*  
No. 1560

**Kea'au, i ke kai nehe i ke 'ili'ili.**  
*Kea'au, where the sea murmurs  
over the pebbles.*  
No. 1668

## 1.5 Previous Studies Funded By DOFAW

In 1997, a reconnaissance survey was carried out by the University of Hawai'i-Hilo Anthropology Department, under the direction of Barbara Lass, for the Puna Historic Trail; DOFAW funded the project. Their goal was to understand the extent of cultural resources in the area to determine if the trail could be a public hiking trail. Lass determined that opening the trail for recreational use would not affect any of the cultural sites identified in the survey. She further went on to describe that the development of a public hiking trail "would be an ideal opportunity for public interpretation of the area" (Lass, 1997).

In 1999, DOFAW funded an Archival-Historical Documentary Research, Oral History and Consultation Study, and Limited Site Preservation Plan. This report was prepared by Kepā Maly of Kumu Pono Associates. The purpose of this report was to identify cultural and historical resources and uses of the Puna Historic Trail and to make recommendations for protection and interpretation of the trail and its resources. This study included a literature review, oral history interviews, and consultation with kama'āina. Below is a list of the primary recommendations made by interviewees and consultation participants.

- Nā Ala Hele should seek out, and make every effort to work with descendants of the native families of Kea'au-Maku'u in the development of formalized site treatment

- plans, long term management of the historic Puna Trail resources, and identifying traditional based protocols for trail use.
- Nā Ala Hele should work to facilitate the development of a community-based resources management partnership in which native families, the land owner, individuals knowledgeable about trails, and stakeholder agencies can coordinate long term management programs for the Puna Trail resources.
  - A component of such a management plan might include a resident “trail host” or “stewardship” program (similar to that at the Kekaha Kai or Mālaekahana State Parks). It has been suggested that an individual or family descended from the traditional families of the Kea’au-Maku’u vicinity be sought out for such a position.
  - The historic resources need to be respected, people should be informed that entering the sites is inappropriate (exceptions being lineal descendants, cultural practitioners, and those performing preservation tasks).
  - All trail users should be informed that damaging the historic resources is inappropriate and punishable by State Law (HRS 6E-11).
  - Do not pave the Puna Trail-Old Government Road with asphalt; any restoration should be done in a manner consistent with the historic and natural qualities of the existing landscape.
  - If any work occurs on or near the historic resources, prior approval should be obtained from DLNR-SHPD, a plan developed, and work should be monitored. (Stones should not be harvested from one site for use on another site or trail repair.)
  - Trail use should be limited to non-motorized transportation.
  - Explore options for reestablishing a mauka-makai (pedestrian) trail access in Kea’au.
  - The trail and adjoining sites should be periodically monitored by Na Ala Hele– DLNR-SHPD to ensure that no activities impact the sites, and weekly maintenance schedules should be established to care for sites, grounds, litter, and interpretive needs.
  - Interpretive signs should be set in appropriate, unobtrusive locations, to inform the public about: (a) the history and nature of the Puna Trail and adjoining sites; and (b) to inform trail users about the responsibilities that each traveler has for use of the trail – such as remaining on-trail (not trespassing onto private property), and staying off of cultural and archaeological sites.
  - Develop an educational program agreement (including field visits) with the Kea’au and larger Puna District schools to help foster awareness and appreciation of the historic trail and natural resources of Puna.
  - Sensitive sites (for example–caves and possible burial features) should be avoided, and such sites should not be identified on public documents. (The privacy of confidential information will be protected.)
  - If inadvertently discovered, burial remains are to be protected in place (if not immediately threatened with damage from natural or man-made causes). Final



disposition of remains should be determined in consultation with DLNR-SHPD, and native Hawaiian descendants of the families of Kea'au-Maku'u. If any burial remains should be discovered, they are to be treated on a case by case basis in concurrence with Chapter 6E-43 (as amended by Act 306).

## PART 2: Historic/Cultural Context

### 2.1 Mo'olelo

The term *mo'olelo* is a contraction of two other Hawaiian words: *mo'o* and *'ōlelo*. *Mo'o* meaning succession and *'ōlelo* referring to language or speech. Hence, *mo'olelo* signifies the continuation of speech, or the art of story telling. Prior to Western contact, Hawaiians lacked a written language, relying on stories to preserve history, transmit knowledge, and reinforce cultural values. These *mo'olelo* permeated Hawaiian life, appearing in place names, chants, songs, and traditions.

*Mo'olelo* encompass more than just myths and legends; they serve as historical accounts of the world that surrounded the Hawaiians. Often *mo'olelo* would explain geological events, like in the epic of *Hi'iaka*. The rain, the ocean, and all elements of nature were given names. Some of these names are still familiar to us today, such as *Pele*. While *Pele* is commonly referred to as a Hawaiian deity, or *akua*, the term *akua* is more accurately translated as “elements” rather than “god” or “goddess.” In this context, *Pele* is not merely a goddess of lava; she is lava itself. Therefore, stories of *Pele* are stories of actual historic lava flows that occurred.

There are countless stories of the *Kea'au* area, encompassing the *Puna Trail* and *Hā'ena Beach*. To include them all in this report would be impractical. Thus, we have selected three stories to share below. These particular narratives were chosen due to their significance beyond *Kea'au*, connecting the trail and *Hā'ena* to not only the entirety of *Hawai'i* but also the world. As described in the story of *Pele*, *Hi'iaka*, and *Hōpoe*, hula *Pele* originates at *Hā'ena*. Today, hula has spread worldwide, with every *hālau* practicing at least one hula *pele*. In the story of the *Māmalahoe Kānāwai*, *Kamehameha* is prompted to enact a law across all of *Hawai'i* that makes reference specifically to trails. This law is carried into the State Constitution to this day. Lastly, the story of the revitalization of the *nēnē*, which had its beginnings in *Hā'ena*, now manifests its impacts across the *pae 'āina*.

#### 2.1.1 *Pele, Hi'iaka, and Hōpoe*

*Summarized from Westervelt (1916).*

*Pele* and her younger sister, *Hi'iaka*, resided in *Puna*, on the island of *Hawai'i*. While *Pele* rarely left her crater, *Hi'iaka* often spent her days at the shores of *Hā'ena*, with her closest friend *Hōpoe*. *Hōpoe* taught *Hi'iaka* the language of the trees, rocks, and ocean around her. She taught her how to tell the stories of the surrounding environment through the movements of their hands and bodies. *Hōpoe* and *Hi'iaka* loved to dance hula together. Together they are credited with teaching hula *pele* to the Hawaiian people, a specific type of hula that originated at the shores of *Hā'ena* in *Puna*.

One day, while *Hi'iaka* was playing along the shore with *Hōpoe*, *Pele* summoned *Hi'iaka* to her crater. *Pele* decided to enter a deep sleep, instructing *Hi'iaka* to awaken her in nine days and eight nights, as she hoped to encounter a lover in her dreams. As she drifted off to sleep, the scent of *hala* filled the air. *Pele's* spirit departed from her body, drawn by the captivating sounds of drums and chanting. In search of the source of these sounds, *Pele* journeyed from island to

island until she reached Hā'ena, Kaua'i, the home of Lohi'au, the high-born chief of Kaua'i. The people of Hā'ena were captivated by Pele's beauty, especially Lohi'au. He asked her to be his wife, and she agreed. They married and dwelt together for several days, until Pele heard Hi'iaka calling out to her. Pele, in tears, informed Lohi'au that she must go. Before departing, she promised that when she awoke, she would send someone to bring him to her home in Puna.

Pele's spirit returned to her body in Puna. As promised, she immediately asked her sisters to journey to Kaua'i to retrieve Lohi'au, but they all declined. Finally, she turned to Hi'iaka, who agreed on the condition that Pele care for Hōpoe, her lehua grove. Pele accepted the condition, and Hi'iaka embarked on her journey. Along the way, Hi'iaka encountered numerous obstacles as she traveled from island to island; Pele grew impatient with her. When Hi'iaka looked back towards Hawai'i, she saw smoke shrouding Puna. The smoke continued to grow darker and darker until it erupted into flames. Many days passed before she finally reached Lohi'au. Hi'iaka had a vision of Puna and witnessed the devastation as Pele's fiery wrath consumed the forest she had promised to protect. Hōpoe was transformed into a rock, balancing at the shore, dancing as the wind blew and the earth shook. Hōpoe stood there for centuries until a tsunami in 1946 washed the stone away.

### 2.1.2 Māmalahoe Kānāwai

*Story translated by author, from Kamakau (1867).*

During Kamehameha's rise to power, two of his enemies, Keawema'uhili of Hilo and Keōua of Ka'ū, had joined forces in Hilo. Kamehameha, spying on events around Hilo, secretly paddled from Laupāhoehoe with his companion Kahaku'i to Kea'au. When Kamehameha arrived in Kea'au, at Pāpa'i, he spotted a group of men and women fishing near the shore; one man was carrying a child on his shoulders. Kamehameha leaped from his canoe to attack them. The group fled, except for two men who stayed to fight, including the man bearing the child. As Kamehameha was running towards them, his foot slipped into a crevice in the rocks, and he found himself stuck. The fishermen ran up to him and struck his head with a paddle. This fight was named Kaleleiki, describing the way in which Kamehameha rushed out of his canoe to attack. Kamehameha knew that the reasons he survived that day were because one of the men was burdened with the child, and because the men attacking did not know that it was Kamehameha they were fighting with. It was because of this event that the Māmalahoe Kānāwai was enacted by Kamehameha. This law states: "e hele ka 'elemakule a me ka luahine a me ke keiki a moe i ke alanui;" let old men and women and children sleep safely along the trails.

This law remains in the State Constitution to this day. Article 9 Section 10 reads "the law of the splintered paddle, mamala-hoe kanawai, decreed by Kamehameha I--Let every elderly person, woman and child lie by the roadside in safety--shall be a unique and living symbol of the State's concern for public safety."

### 2.1.3 Nēnē

The nēnē, or Hawaiian goose, is the largest native land bird in Hawai'i. It's characterized by its dark brown and white plumage, its long white neck, and black head. Nēnē evolved with no

natural predators, which made them especially vulnerable to any sort of threat. By the early 1900s, nēnē were faced with extinction from loss of habitat and predation from introduced rats, dogs, and mongoose (Wilson, 2020). In 1918, Herbert C. Shipman, a rancher from Puna, desired to save the near-extinct population of geese. He started the world's very first nēnē breeding program at his property in Kea'au (W.H. Shipman Ltd, 2022). Years later in 1950, the State of Hawai'i (the Territory of Hawai'i at the time) initiated a breeding project at Pōhakuloa. Shipman supplied the State with birds from his captive population in Kea'au. However, the State was unsuccessful in its first round of breeding. They reached out to the Wildfowl Trust, an English conservation organization, in an effort to increase their success rate. In response, the Trust sent their curator, John Yealland to Hawai'i. Yealland offered guidance to the State on implementing the Trust's standard rearing protocol. Before returning back home, Shipman gave Yealland a pair of nēnē to breed back to England. But to their surprise (and amusement), upon arriving both nēnē had laid eggs! The Wildfowl Trust reached back out to Shipman to send a third bird, a male, which he did. The coordinated efforts of Shipman, the State, and the Wildfowl Trust demonstrated remarkable success. It was Herbert Shipman's foresight in recognizing the imperative need for a nēnē breeding program that ensured the continued existence of these birds today. Shipman's contributions played a pivotal role in preserving a species that might otherwise have faced extinction.

The nēnē was later proposed as the state bird of Hawai'i to garner more public support and funding for continued conservation. The nēnē remains the official state bird to this day. In 2022, the annual nēnē population survey estimated a total of 3,862 birds statewide (Smith, 2022).

## 2.2 Sacredness

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**Mai ke kai kuwā e nū ana i ka ulu hala o Kea'au ā ka 'āina kā'ili lā o lalo o ka Waikū'auhoe.**

*From the noisy sea that moans to the hala groves of Kea'au, to the land that snatches away the sun, below Waikū'auhoe.*

From Puna, Hawai'i, where the sun was said to rise, to Lehua, beyond Waikū'auhoe, where it vanishes out of sight.

No. 2070

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Sunrise was a particularly sacred time for Hawaiians. It signified the transition from pō to ao, darkness to light, marking the birth of a new day. Hawaiians offered specific protocols and oli to encourage the sun's efforts. Oli such as "E Ala e" or "E Kānehoalani e" were recited during these sacred moments. The sun was perceived as the ultimate source of life and energy,

providing sustenance and illumination upon the earth. In the ‘ōlelo no‘eau provided by Pukui (1983), Kea‘au is recognized as the place where the sun rises, highlighting the significance attributed to this place at this sacred time of day.

E Kānehoalani e is chanted at sunrise to greet the sun as it peaks over the horizon. *E Kānehoalani e, aloha kāua.* Kānehoalani is the name given to the sun by the Hawaiians; they are greeting the sun as it arrives. *Kau ka hōkū ho‘okahi hele i ke ala loa.* They are asking the one and only sun to rise up and make its journey on the **ala loa** across the sky. *Aloha kama kūkū kapa a ka wahine, he wahine lohiau nānā i ka makani, he makani lohiau hā‘upu mai o loko ē.* Greetings to the child of the kapa beating woman, a woman who is held back by the wind, an obstinate wind, recollection from within.

### 2.3 Archaeological Resources

Several archaeological studies have been conducted along the Puna Trail and the area encompassing Hā‘ena Beach. These studies have identified a number of archaeological resources, as described below:

- Hudson (1932) described the entire Puna Trail as well as several sites at Hā‘ena, including the fishpond and a kū‘ula (upright stone) for the fish god Keakuaualo. He also noted two rocks at the shores of Hā‘ena, one being the petrified remains of Hōpoe.
- Ewart and Luscomb (1974) surveyed three sites just south of Pākī Bay. He discovered an archaeological complex consisting of walls, enclosures, and stone mounds along both sides of the trail. He recorded another large enclosure with scattered walls, platforms, and terraces. Several lava tube burials and a burial vault were also found.
- McEldowney (1979) provided limited information about the fishpond at Hā‘ena and the Hā‘ena complex which included both historic and prehistoric features.
- Lass (1997) identified fourteen sites along the trail. These sites are listed in Table 1.

The following table is presented in Maly’s (1999) report. It is a list of sites along the trail that are registered in the Hawai‘i Register of Historic Places. The descriptions of each site were provided by Lass (1997) and additional comments were added by Maly as part of his report.

**Table 1.** Registered historic sites along the Puna Trail from Maly (1999).

State Inventory of Historic Places Site Number 50-10-36	Site Type	Description and Comments
21259	Rock wall	Parallel to the mauka side of the Old Government Road (OGR) – perhaps dating to the period of construction of the formal road (ca. 1870 +)
21260	Rock wall enclosure and	This site is on the mauka side of the OGR. A rectangular rock wall encloses several features. Among those features are smaller walled enclosures, a rock pile, and a small segment of a retaining wall. These features are presently interpreted as being of agricultural functions. One

	associated features	additional site within the enclosure was interpreted as a possible burial platform (no further investigation was conducted). The site may incorporate both pre-historic and nineteenth-century features in it.
21261 & 21262	Adjoining rock wall enclosures	Situated on the makai side of the OGR, across from Site 21260. These enclosures were interpreted as nineteenth-century agricultural features.
21263	Rock wall	Situated on the mauka side of the OGR, paralleling the alignment (age and function unknown).
21264	Rock wall enclosure	<p>Situated on the makai side of the OGR, this site is a roughly oval shaped enclosure with several interior walls which appear to divide the area into smaller compounds. At the time of the survey, two of the smaller enclosures held standing water. The site and associated features are interpreted as being agricultural sites.</p> <p>Lass also observed several features makai of Site 21264, an annotated summary of her comments is provided here:</p> <p>Between Pākī and Keauhou above a rough jeep path (probably the general alignment of the old fisherman's trail from the old Kea'au school house, past Pākī and Keauhou, and continuing on to Keahuakalīloa), is a large complex and possible heiau (situated at the place called Pōhakualea – cf. Cook 1913 in this study). Inland of this site, proceeding to the OGR and Site 21264 are numerous agricultural features and a possible burial mound (the latter is similar to the possible burial feature identified at Site 21260).</p> <p>Immediately makai of the old Pākī residential site (home of George – Keoki Ma'i, who lived at Pākī until ca. 1942), are a series of petroglyphs on the pāhoehoe flats. These petroglyphs are in the form of names and some dates, primarily dating between ca. 1860 to 1920. (cf. Lass 1997:31-32)</p>
21265	L-shaped wall	Situated on the makai side of the OGR, paralleling the alignment (age and function unknown).
21266	Rock wall enclosure	<p>Situated makai and adjacent of the OGR. Within the site are several stone piles, and plantings of ti. The site is interpreted as a nineteenth century agricultural feature.</p> <p>Lass also noted: On the mauka side of the OGR, across from Site 21266 is an apparent residential complex, not easily visible from the road. (Lass 1997:31)</p>
21267	Modified hollow	Situated makai of the OGR, this site is a roughly oval-shaped hollow, with interior portions of the hollow lined by rock walls. The site is interpreted as being an agricultural feature.
21268	Rock wall	This site is a long rock wall, situated parallel to and on the mauka side of the OGR. (The wall fronts the Clara Shipman-Fisher property.)
21269	Rock wall	This site is a rock wall that is situated makai of the OGR, extending from the road alignment towards the shore. (The wall was a boundary and paddock wall built as a part of the Shipman Ranch operations.)
21270	Concrete trough	This site is on the mauka side of Site 21268, inland of the OGR. (The site is associated with the Fisher Chicken Farm—ca. 1923-1942.)
21271	Concrete bunker	Situated on the mauka side of the OGR, this bunker was one of two such features—one each on the south and north sides of Kea'au Bay—built as fortifications during World War II.

21272	Modified trenches	Situated on an uplifted pāhoehoe mound, on the makai side of the OGR. The trenches are made in the natural māwae (fractures) in the top of the mound. They were interpreted as dating from World War II.
21273	Old Government Road – Puna Trail	The main thoroughfare in the district of Puna for much of the nineteenth century (with portions of the road being built upon the early ala loa). The alignment includes ‘ili‘ili and larger cobblestone pavements, curbstone and wall siding, raised or filled areas, and worn paths across open pāhoehoe flats.

### 2.3.1 Pākī Petroglyphs

Located south of Pākī are thirty-five names intricately carved into the pāhoehoe shelf, right at the water’s edge. During high tide, these petroglyphs are completely submerged. Despite its use of the English alphabet, these carving are classified as petroglyphs due to their resemblance to traditional Hawaiian petroglyphs in terms of size, overall layout, and carving style. These thirty-five names serve as a continuation of this longstanding practice into the modern age.



Figure 4. "S.K. Puukohola" etched into the lava at Pākī (from Maly, 1999).

## 2.4 Cultural Resources

The Puna Trail and nearby coastline are adorned with a rich variety of resources that once supported entire villages of kānaka living along the coast. There was sufficient food, a supply of fresh drinking water, and enough materials to build hale and other essential tools and religious structures. Despite moving out of these villages and away from the coast, Hawaiian families still rely on these resources to support their lifestyle. In consultation with lineal descendants of the

area, they identified resources along the trail and nearby coastline that are important to them today. These resources were then grouped by Townscape into three different categories: consumption, conservation, and ceremony. These categories are described in more detail below.

### 2.4.1 Consumption

Consumption resources are resources that people eat. This supply of subsistence food is essential for the survival and well-being of individuals and communities, particularly in remote areas, such as Puna, where access to grocery stores and markets may be limited. These resources also help to make up one's cultural identity. Traditional fishing and hunting methods are still practiced today by descendants of Hawaiian families who have passed down this knowledge through generations. Preserving access to hunting and fishing spots is critical to ensure the continued transfer of 'ike kūpuna (ancestral knowledge) to the succeeding generations.

Resources along the Puna Trail's coastline that are important for consumption include ulua, menpachi, moi, āholehole, mullet, kole, nenuē, 'opihi, hā'uke'uke, and various species of limu.

### 2.4.2 Conservation

Conservation resources are significantly important to the ecosystem and therefore merit conservation efforts. Some of these resources may have traditionally been a part of the Hawaiian diet in the past but now face threats to their population and require protection (e.g., honu). Conservation resources are made up of the plants, animals, and other natural features of Kea'au; the Puna Trail itself is classified as a conservation resource. Important animal species that frequent the Puna Trail and Hā'ena Beach include honu (turtles), koholā (humpback whales), nai'a (dolphins), nēnē (the Hawaiian goose), 'auku'u (night heron), ae'o (the Hawaiian stilt), kōlea (pacific golden plover), koloa (the Hawaiian duck), 'ūlili (wandering tattler), and 'Īlioholoikauaua (monk seals). Other important plant species and natural features include hala, 'ōhi'a lehua, hau, niu, laua'e, uluhe, and the spring-fed fishpond known as Waiko'olihilihi.

Conservation resources also include archaeological sites that hold significant historical and cultural value. These include features such as the stone walls along the trail, the remains of the old school grounds in Pākī, and the village site between Pākī and Hā'ena, which provide valuable insights into the area's history. These resources serve as a window to the past, offering glimpses into the lives of the Hawaiians who came before us. Preserving these sites is essential to preserving the history and heritage of this region and the people who inhabited it.

### 2.4.3 Ceremony

Ceremonial resources are important for religious and ceremonial practices and refer to an object, place, or element that holds cultural, religious, or symbolic significance. They can take many forms, including oli (chants), wahi (spaces), and akua/hi'ona (elements and natural features). The area of Hā'ena is significant as a place that is used by hula practitioners for 'ūniki (graduation) ceremonies. The area is also used for the hālau's own enrichment, by allowing hula dancers to perform a dance about a place while physically being in that place. Other features



that are tied to religious and/or ceremonial practices include the burial mounds found along the trail as well as the two kū'ula at Hā'ena.

## 2.5 History of the Puna Trail

The Puna Historic Trail was part of the traditional coastal trail system that ran parallel to the ocean around most of the island. It served an important role in linking all of the ahupua'a together. This trail allowed Hawaiians to move freely upon the land from one place to another; it promoted the gathering and trading of resources between different communities. Traditional foot trails were generally narrow and often twisted and turned with the natural contours of the earth. In certain areas, waterworn stones, or 'alā, were carried in and placed on the trail as a form of paving (Lass, 1997). Evidence of this stone paving exists along the Puna Trail. This type of work required a large number of people to *hali-hali* rocks from the shore. Most likely at one point in time, the area ali'i (chief) or konohiki (land manager) facilitated such an event.

It wasn't until Western influence that Hawaiian trails were straightened out for horses, carts and wagons, and eventually cars. The Puna Trail was first modified in the 1840s to accommodate horses (Lass, 1997) as more people began to rely on them for transportation. Horses had been around since the early 1800s, however, they were reserved primarily for chiefs and eventually, missionaries. The existing foot trails were not suitable for large animals since they could easily slip on the smooth 'alā. Horses also had difficulty following trails that were not clearly marked as paths. These initial modifications to the Puna Trail included straightening out the road, removing the paving stones, and adding curbstones along the sides of the trail. It was at this time that the Puna Trail became the main Government Road in Puna.

Additional modifications were made to the Government Road from 1869 to 1975. The road was moved closer to the beach at Hōpoe on Kaloli Point. It was also widened to fit two horses side by side. For the next 20 years, no modifications were made to the Government Road, and it was just maintained by clearing brush and picking up fallen stones.

Beginning in the 1890s, Hawaiian families living along the coast in Kea'au left the shoreline for homestead agricultural and residential lots further inland. Other families moved into housing provided by W.H. Shipman, the main landowner of Kea'au and owner of Shipman Ranch. With the influx of people inland, there was a need for an improved road away from the coast. In 1895, construction began on Kea'au-Pāhoa Road (Highway 130). The Government Road fell back into its use as a pedestrian foot trail as government money was focused on the new mauka highway. For the next 46 years, repairs and maintenance of the Puna Trail became the kuleana of the native residents of Kea'au and the workers of Shipman Ranch. A map from 1924 lists the trail as the "Puna Trail," indicating its demotion from a horse "road" back to a foot trail. Another map from 1933 labels the trail as the "Old Government 10 Foot Road," suggesting the road hadn't been used in a long time.

In 1942, at the start of World War II, the Shipman Ranch lands temporarily housed the U.S. military's coastal defense soldiers (Lass, 1997). To access these lands, they opened up the Puna Trail and smoothed it out for four-wheel drive military vehicles. The trail was in military use for a total of four years, throughout the duration of the war.

Despite the Puna Trail being referred to as a road, it was never intended for vehicular use. This Government Road was maintained as a 10-foot-wide horse trail for roughly 50 years before it fell back into its original use as a footpath. Today, the Puna Trail still holds its historic and cultural value. The traditional 'alā, which were once used for paving, now line the sides of the trail embedded in rock walls. When the 'alā were removed from the traditional footpath, they were reused to create animal enclosures for Shipman Ranch. The historic curbing also remains along other areas of the trail, as well as traditional retaining walls that were created to hold up low points in the trail. Unfortunately, these traditional and historic features, which includes the Puna Trail itself, are threatened with severe erosion due to continued vehicular use on the trail. This trail has provided access to food and other necessary resources for generations. It also played a key role in historic events that shaped traditional Hawaiian society. Preserving the Puna Trail's historic and cultural integrity is crucial to ensuring that traditional mo'olelo and ways of life can be passed on to the next generation.

## PART 3: References

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