

# Hawaiian Performance Cartography of Kaua'i

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The first western-made maps of Hawai'i were created by Captain James Cook and from his time until the mid-nineteenth century maps and mapmaking in Hawai'i existed to satisfy foreign needs—maritime commerce, missionary endeavors and scientific investigations. Late visitors to Hawai'i produced charts and maps depicting the shores, harbors, towns, natural resources and important geological phenomenon, and from the mid-nineteenth century on, maps and mapmaking became increasingly important to satisfy alien needs for metes and bounds and land ownership.

A map, however, is just one kind of graphic representation of the world. Woodward and Lewis (1998) described maps as “graphic representations that facilitate a spatial understanding of things, concepts, conditions, processes, or events in the human world” (p. xvi). For example, the designs on the brilliant feather cloaks of Hawaiian warrior chiefs might have been graphic representations of battle formations. Mitchell (1982) described three battle formations that were represented in the patterns on *'ahu'ula* (feather cloaks)—*kahului* (crescent), *kūkulu* (straight lines), and *makawalu* (clusters) (p. 282). In his extensive work with petroglyphs, E. Stasack believed that the numerous *kōnane* (checker) boards found on *pāhoehoe* fields assisted in mapping out battle strategy (personal communication, December 13, 2010).

While representations in feather cloaks or *kōnane* are easily recognizable, other forms may not be. These other forms may fall into a form described by Woodward and Lewis as performance cartography (1998, pp. 1–5). They wrote that

*a performance may take the form of a nonmaterial oral, visual, or kinesthetic social act, such as a gesture, ritual, chant, procession, dance, poem,*

*story, or other means of expression or communication whose primary purpose is to define or explain spatial knowledge or practice. Or the performance may include a more material, but still ephemeral, demonstration such as a drawing or model in the sand.(p.4)*

Oliveira (2006) described Hawaiian performance cartography in this way:

*Traditionally, Kanaka Maoli [Native Hawaiian] utilized 'performance cartography' to reference their constructed places, legitimize their existence, and reinforce their legacies. Such cartographic representations were expressed in many ways including: inoa āina (place names), mele (songs), hula (dance), 'ōlelo no'eau (proverbs), mahele 'āina (land divisions), mo'olelo (historical accounts), and mo'okū'auhau (genealogies). The modes of expression and/or communication utilized in Hawaiian performance cartography function like a map in that it references spatial understandings and features. (p.212)*

The following discussion examines Hawaiian performance cartography as described by Oliveira but only as it relates to the island of Kaua'i. Section I begins with a chant asking permission to “enter” into the cultural landscape described in *mele* (songs) and *hula* (dance). Section II looks briefly at *mo'okū'auhau* (genealogies), *inoā 'āina* (place names), *mahele 'āina* (land divisions), *'ōlelo no'eau* (proverbs) and *mo'olelo* (historical accounts). Section III looks at *hei* (string figures) as performance cartography. The discussion in each section will provide examples and explanations of Hawaiian performance cartography, which includes a first-time look at the cartographic representations of *hei*.

## Section I: Hawaiian Performance Cartography in Mele (songs) and Hula (dance)

### Mele as Performance Cartography

#### Mele Kāhea

(admittance chant)

Kūnihi ka mauna i ka la'i e  
*The mountain is steep in calm*

'O Wai'ale'ale lā i Wailua  
*Wai'ale'ale to Wailua*

Huki a'e la i ka lani  
*Pulled into the heavens*

Ka papa 'auwai o Kawaikini  
*Rivuleted plain of Kawaikini*

'Ālai 'ia a'e la e Nounou  
*Obstructed by Nounou Hill*

Nalo 'o Kaipuha'a  
*Kaipuha'a is lost*

Ka laulā ma uka o Kapa'a e  
*And the vast upland of Kapa'a*

Mai pa'a i ka leo  
*Don't hold back the voice*

He 'ole kāhea mai ē  
*This is just a call.*

When the goddess Hi'iaka stood upon the banks of the Wailua River and chanted this *mele kāhea* (admittance song), she chanted to and of the pristine but not unfamiliar place and space surrounding her. Looming above her was majestic Mount Wai'ale'ale, former volcanic home of Pele, goddess of fire, and her family but now the wettest spot in the world. The imagery she used conveys a picture of a very watery and ethereal world: *Wai'ale'ale* (Furrowed Waters), *Wailua* (Double Waters), *papa 'auwai* (plain of water rivulets), and *Kawaikini* (Multitudinous Waters). From where she stood, much of the uplands of Wailua was obscured by a system of hills and ridges that ran parallel to the seashore. One of these hills was Nounou, which blocked the view of the vast upland of the Kapa'a basin. She named this obscured region Kaipuha'a (Low Hanging Gourd), and in doing so provided a vivid picture and

metaphor of that basin much akin to the term "breadbasket," a region of rich soil and agricultural surplus.

Hula practitioners continue to use Hi'iaka's *mele kāhea* as an admittance chant to gain entry into the *hālau hula*, the academy proper of the art of Hawaiian dance. The topographical features and their place names form a metaphorical map for the physical layout of the hula school. Nounou Hill represents the doorway to the *hālau hula* at which the hula student stands requesting admittance. The door is a temporary hindrance but an obstacle nevertheless that can only be overcome by asking permission of the *kumu hula* (hula expert) to enter. The dance hall proper is represented by the Kapa'a Basin. Remember that Hi'iaka named this basin Kaipuha'a (Low Hanging Gourd), a name which does not appear on western charts and maps but is known only in *mele* and *mo'olelo*. Here, the *ipu* in Kaipuha'a refers to the gourd, one of the primary, percussive instruments in hula, and the word *ha'a* is a more ancient word for dance (see Kamakau, 1976, p. 143 for use; Kaeppler 1993, pp. 6–9). *Kapa'a* means "the solid and secure" and alludes to the physical demands of dance and the need to practice, study, and learn until knowledge as well as technical skill is *pa'a* or secure. The ethereal mountain region of Wai'ale'ale refers to and locates the *kumu hula* (hula teacher) with his wealth of knowledge. The *wai* (water) found in the place names of that region: Wai'ale'ale, Wailua, papa 'auwai, and Kawaikini is also found in the Hawaiian word for wealth, *waiwai*, thus emphasizing the status and essential role of the *kumu hula* as "source of water" and wellspring of knowledge in the learning process. Kumu hula Māpuana de Silva wrote a beautiful interpretation of the mele and the meaning it has for her and her students:

*The chant tells us that we are a long way from becoming experts at hula (Kawaikini is way up there and we are "stuck" (pa'a) way down in Kapa'a). The path to hula knowledge is steep (kūnihi), and there are many obstacles and difficulties (nounou, to throw, pelt, beat) ahead of us. But we will still get there if we take the hidden path of humility (Kaipuha'a). So we call out politely, and ask to take the path. Basically, what we say is "Please allow us to enter, travel, and learn here." (de Silva, 1999, community blog)*

In this first example of Hawaiian performance cartography, “Kūnihi ka mauna” serves many functions. First, it is a map that facilitates our understanding of what Hi’iaka saw and experienced and that we can still appreciate today. Second, it is a blueprint for the hula academy. Third, the chant serves as a moral template to follow.

### Hula as Performance Cartography

Consider another Kaua’i *mele* for Wailua—a *hula ka’i* (entrance dance). In this dance, the feet movement of the dancers progress steadily forward on to the dance floor using the *hela* step. The forward progression of the *hela* serves to delineate the traveler’s sight path. The dancer’s hand motions indicate the location of place or human activity spoken of in the chant. Visualize for a moment the dancer’s left hand extending upwards to a virtual uplands and the right hand extending downwards towards a virtual seashore. The right hand sweeps upwards towards the left hand and this motif is repeated for the duration of the chant. Whenever the hands meet in the “uplands,” the chanter is singing about the “the sunlit cliffs of Wai’oli,” the “top of Kama’e” or other things related to the higher elevations. When the right hand sweeps seaward, the chanter sings of “the *hala* [pandanus] ripened by the sea” or “entrance of the home.” The synchrony of audio and visual representations assists the audience in creating their own mental map of Wailua and this map is remembered with each performance.

In this chant Hi’iaka visited Kapō’ulakīna’u, a relative whom she called Wailua Iki or “Small Wailua,” but she is not at home. Hi’iaka then called to the place she perceived Kapō to be—the uplands of Wailua Iki. The modifiers *iki* and *nui* (small and great) as in Wailua Iki, Wailua Nui, or *uka* and *kai* (upland and seaward) as in Wai’anae Uka, Wai’anae Kai, and, to a lesser extent *wai* and *malo’o* (watery and dry) as in La’ie Wai, Lā’ie Malo’o, are attached to place names to further delineate location, geographical, and socio-political significance. In the case of Wailua Iki, “*iki*” refers to the less populated portion of Wailua district as opposed to its geographical size as its area is actually much larger. Wailua Nui (Great Wailua) refers, then, to the cultural and

political center and, hence, the more populated part of Wailua. Kapō’ulakīna’u is gathering flowers in the uplands and unpopulated portion of Wailua district and it is referred to as Wailua Iki by Hi’iaka to recognize her geographical location.

### Hula Ka’i

(entrance dance)

‘O’oe ia e Wailua Iki  
You are Wailua Iki

E ka lā ulu pali o Wai’oli  
On the sunlit cliffs of Wai’oli

I hele ‘ia mai e Li’awahine  
Traversed by Li’awahine

Ka wahine kui pua o Hoakalei ē  
Flower-stringing-woman of Hoakalei

E lei ‘oe.  
Adorn yourself.

E lei ‘oe i nā hala  
Adorn yourself with

i pala ‘iloli i ke kai  
the hala ripened by the sea

Ua hele wale a maka ‘ele’ele i ke anu  
Blackened by the cold

Hina ‘ia e ke Kīna’u  
Tossed down by the Kīna’u

Ola iā Mahamoku ka makani kū  
Revived by the Mahamoku

Puni kāwalawala  
Scattering here and there.

Kāhea i ka luna  
Calling to the heights

o Kama’e e ho’i  
of Kama’e to return

He malihini puka ko ka hale nei  
Visitors are at the entrance of your home.

## Section II: Hawaiian Performance Cartography in Mo'okū'auhau (genealogies), 'Ōlelo no'eau (proverbs), Mahele 'āina (land divisions), and Inoa 'āina (place names)

### Mo'okū'auhau as Performance Cartography

A *mo'okū'auhau* or genealogy is a history of our people. It is an “unbroken chain that links those alive today to the primeval life forces—to the *mana* (spiritual power) that first emerged with the beginning of the world” (Kame'eleihiwa, 1992, p. 20). Mo'okū'auhau is contained in the *Kumulipo*, a *mele ko'ihonua* (genealogical song) that establishes the sacred lineage of Kalaninui'iamamao and traces his lineage back to the very beginning of the cosmos. The *Kumulipo* orders the creation of the universe from echinoderms to seaweed, proceeding to fish, birds, creepers of the land, animals, and finally to man. The twelfth *wā* (canto) is significant to Hawaiians because it establishes the genealogy of Hāloa, the progenitor of the Hawaiian people.

The farther back we go in search of common ancestors, the more inclusive our genealogical identity becomes and “a ‘deeper’ sense of kinship inevitably entails a wider range of contemporaries we consider relatives” (Zeruvabel, 2003, pp. 66–67). As a kind of time map as described by Zeruvabel, genealogy or mo'okū'auhau lays out relationships of man to each other and to his senior relatives in nature. It gives the lines and principles of descent and order. According to Kame'eleihiwa (1992), “genealogies *are* the Hawaiian concept of time, and they order the space around us” (p. 19). To the Māori, genealogical cousins to the Hawaiian people, “whakapapa [genealogies] provides the ‘metaphysical kaupapa’ (ground plan; first principles) whereby Maori order, locate, and ‘know’ the phenomenal world” (Roberts & Willis, 1998, p. 43).

Another genealogical map is *Mele a Paku'i*. In it, Kaua'i is called Kamāwaelualani, an older *inoa 'āina* (land name) found only in performance cartography. *Ka Mele a Kahakuikamoana* is yet another genealogical map. The performer, Kahakuikamoana, chanted this of Kaua'i:

Hānau Kaua'i he ali'i  
*Kaua'i was born a chief*

He kama, he pua ali'i,  
*A child, royal descent of*

He huhui ali'i a Hawai'i  
*the royal assembly of chiefs of Hawai'i*

Na ke po'o kelakela o nā moku.  
*Of the highest lineage*

### 'Ōlelo No'eau as Performance Cartography

*Ka Mele a Kahakuikamoana* as a genealogical map established the pedigree of Kaua'i island as “*pua ali'i*” and “*huihui ali'i a Hawai'i*” and accounts for the chiefly '*ōlelo no'eau* (proverb) associated with Kaua'i:

Hānau ke ali'i i loko o Holoholokū, he ali'i nui;

Hānau ke kanaka i loko o Holoholokū he ali'i nō;

Hānau ke ali'i ma waho a'e o Holoholokū, 'a'ohe ali'i, he kanaka ia.

The child of a chief born in Holoholokū is a high chief;  
The child of a commoner born in Holoholokū is a chief

The sacred and royal significance of Kaua'i extends beyond Kaua'i as the Naha Stone that Kamehameha lifted to demonstrate his eminent control over the island chiefdoms came from Holoholokū. Under this stone were the *piko* (umbilici) of the Naha chiefs of Hawai'i island. Thus, '*ōlelo no'eau* as performance cartography reaffirmed relationships, commemorated history, and located historic ancestors in both time and space.

### Mahele 'Āina as Performance Cartography

The *mahele 'āina* of Kaua'i are similar to those found on other Hawaiian islands that shared climate and geographic characteristics. For example, Ko'olau districts on Kaua'i, O'ahu, and Maui are on the windward side that receive tradewinds and more rain than other *mahele 'āina*. Puna on Kaua'i and Puna on Hawai'i are exposed to south easterlies and have lush vegetation. Kona districts are on the leeward side of the island and are drier. In the *mo'olelo*

of *Kawelo*, the *mahele 'āina* are apportioned (*mahele*) in the following manner:

Ko'olau no Kalaumeki  
[*Ko'olau is for Kalaumeki*]

Puna no Ka'elehā  
[*Puna is for Ka'elehā*]

Kona no Kamalama  
[*Kona is for Kamalama*]

Kaua'i a puni no Kaweloleimakua  
[*All of Kaua'i is for Kaweloleimakua*]  
(*Ho'oulumāhiehie, 1905–1906/2007, p. 357*)

Readers of Ho'oulumāhiehie's story may have never visited Kaua'i but would have been informed, nevertheless, by familiar *mahele 'āina*—Ko'olau, Puna, and Kona. Louis (2008) wrote,

*Since place names are found in all forms of Hawaiian performance cartographies from mo'olelo [story] to hula, they can be characterized as a basic symbolic element. Hawaiian place names tell us a great deal about Hawaiian spatial understanding such as how environmental phenomena are organized and understood (p. 172).*

### Inoa 'Āina as Performance Cartography

Kona, Puna, and Ko'olau are *inoa 'āina* found throughout Polynesia—Tonga, Puna, Tokelau. Other Kaua'i names harken back to genealogical and physical roots in the cradle of Polynesia such as Olohena on Kaua'i and Olosega in Sāmoa or 'Ūpolu on Hawai'i and 'Ūpolu in Sāmoa. Waimea and Hanalei in Kaua'i and Waimea and Whangarei in Aotearoa are but some of the many *inoa 'āina* that serve as reminders of common ancestry, history, and identity as *kānaka honua, kānaka holomoana*, “people of the land, people of open ocean.” A study in itself, *inoa 'āina* as performance cartography encompasses the vast cultural region of Polynesia.

### Section III. Hawaiian Performance Cartography in Hei (string figure making)

The following explains spatial and cultural knowledge presented in *hei*, Hawaiian string figure making. The construction and utilization of string

figures as performance cartography have never been researched before so an analysis of them will help to define and appreciate Hawaiian cartographic practice.

In addition, the study of the texts accompanying *hei* will elucidate Hawaiian symbolic use and imagery of place names. By virtue of the travelogue quality of *mele pana* (place name chant), multiple string figures are required to locate the geographic locations described in the chant. Dickey (1928) noted

The Hawaiian is fond of motion or change in a string figure. There are 32 figures with a sequence of figures, the first stage usually being the most complex, the figure becoming simpler with each succeeding stage; and some of them relating the story. (p. 11)

### Mele Pana—Place Name Chants

*Mele pana* are the chanted maps of *wahi pana* which has been translated as “celebrated places,” “storied places,” and “legendary places” with the latter being the least acceptable. The late scholar Edward Kanahale, wrote this beautiful description of *wahi pana*:

*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)*

Oliveira (2006) referred to *wahi pana* as the “genealogy of places” (p. 263) saying that

*Places, like people, have genealogies. Place names serve as historical genealogies, chronicling the changes that have occurred over time in a particular locale. With each passing generation, place names are either passed on to the succeeding generation, forgotten, or renamed. (p. 264)*

Kanahale and Oliveira spoke as indigenous researchers to the spiritual nature of *wahi pana* and the deep affection and respect they, as Hawaiians, have for the land. Thus, aloha for the land is found in *mele pana*.

**Mele Pana***(place name chant)*

Wailua nui nanai

*Great hunchbacked Wailua*

Kū i ka maka o Ulu'ena

*Standing in the face of Ulu'ena temple*

'O Hulu'ena lāua 'o Manu'ena

*With Hulu'ena and Manu'ena*

'O Makaki'i ka waena

*With Makaki'i in the center*

'O Nounou a'o 'A'ahoaka

*Nounou and 'A'ahoaka hills*

'O ke Kuamo'o Loa o Kāne.

*As well as the mountain ridge called Long Back of Kāne**(Dickey, 1928, pp. 56, 58)*

**Wailua nui nanai.** The *mele pana* above accompanied a succession of string figures. The geographical features described in the chant remain but the man-made structures of Ulu'ena, Hulu'ena, Manu'ena, and Makaki'i are no longer intact. Dickey, the author of *Hawaiian String Figures*, met a Kōloa woman named 'Āinakē who chanted this *mele pana* and showed him the figures. He was a land surveyor by profession and this *mele pana* provided him an oral map to conduct a search for the places named. He later reported his findings to the Kaua'i Historical Society:

*Uluena is far up the mountain at the sources of the Wailua River. Manuena is a cave on the makai side of Mopua Hill. Huluena I have not located but according to the catscradle it should be on Kapu Hill. Makakii is perhaps another name for the locality where the kings were born. Aahoaka is the well known hill between the forks of the Wailua River. Nounou is the hill back of Waipouli and Kapaa. The kuamooloa of Kane is the upper part of the ridge between the Wailua and Opaikaa Stream. The stream of Makena is at the bottom of the river not far above the poi factory. The house of Kulanihaa I have not located. (Dickey, 1915, p. 3)*

The first four lines of the *mele pana* located the position and relationships of the sacred places of

Wailua. There are two bent loops or “arms” (right and left) over a central diamond in the string figure. This central figure represented Makaki'i, literally the “source of the images,” which was the central temple of a complex where chiefs were born and possibly related to the present Maka'ūkiu *heiau* (temple). The “arms” of the figure located Hulu'ena and Manu'ena temples where feather gods were kept (R. Wichman, personal communication, October 2007). It is interesting to note that Manu'ena (Red-hot bird) was a site associated with a cave where the mudhens, keepers of fire making, once lived. There, Māui tricked the chief mudhen, Ka'alaeuapī, to reveal firemaking to him.

When “'O Nounou a'o 'A'ahoaka” is chanted, the stringer transforms the first figure into two hills—Nounou and 'A'ahoaka. The indexes are inserted under the “bent arms” transforming it into a new figure showing two vertical loops representing the two hills. Nounou is commonly known today as the Sleeping Giant who in *mo'olelo* is Puni, a *pilikua* (giant) who fell asleep there. Nounou was the fortress of 'Aikanaka in the days of Kawelo. 'A'ahoaka can be viewed from Poli'ahu temple which is situated on top of the mountain ridge Ke Kuamo'o a Kāne.

When the entire figure is turned over, the ridge complex called Ke Kuamo'o a Kāne is revealed. From all approaches to Wailua Nui, one is struck by the awesomeness of this geographical feature, the “hunchbacked” mountain and hill peaks of Wailua. Great Wailua is, indeed, a well-storied cultural center of Kaua'i.

The progressive string figures of *Wailua Nui Nanai* are consistent with *mo'olelo* (history) tradition of hula where gesture and symbol are used to enhance the story. As performance cartography, the gesture and movements of both hula and *hei* augment the chanted text to represent geographical description and location.

**Kauhale o Limaloa.** This is the largest string figure made in Hawai'i and is made by two people. Limaloa was the Kaua'i god of mirages who dwelled at Mānā, Kaua'i, an arid and desert-like place (*mānā*) with long white-sand beaches and mirages. On the last four lunar nights of Kāne, Lono, Maui, Muku, Limaloa built homes for returning spirit ancestors.

The four corners of the *hei* showed, according to context, a) homes for the spirits who return on the night of Kāne; b) the four traditional gods Kāne, Kanaloa, Lono and Kū; c) the four lunar nights–Kāne, Lono, Maui and Muku; or d) the four corners of the coastal plain of Mānā, Kaua'i.

### Mele Pana Kauhale a Limaloa

Kauhale a Limaloa  
*Compound of Limaloa*

Kūkulu Kauhale a Limaloa i ka li'ulā  
*Constructed in mirage*

Ho'okuene ana i ke kaha o Keālia  
*Arranged at the sun-baked, barren strip of Keālia*

Holo ka wai lana i ka 'āina a pau ē  
*Water mist spreads over the land*

A pau lā.  
*And they are gone.*

(Dickey, 1928, p.148)

The idea of the four triangles representing the four corners of the dry coastal plain of Mānā is interesting because the central rectangle of the figure locates an old strip of swamp once located in the center of Mānā remembered as *ke ālia*, defined as “salt encrusted places with cool springs” (Pukui & Elbert, 1986, p. 20). Furthermore, the use of triangles in a string figure to section off land is not new. In the traditional Hawaiian homeland of Kahiki (Tahiti), *A Mahara Ra'itea* divided the island of Ra'iatea in the Society Islands into two divisions, each with four clans (Handy, 1925, p. 58). On the island of Tahiti, *A Mahara Taravao* sectioned off the district of Taravao in a similar way (Handy, 1925, p. 59).

Kauhale a Limaloa required two people to construct it. They chanted as they worked to form the base figure. In Sāmoa, Kauhale a Limaloa is called *fale sā* (church) and in the Caroline Islands it is called *naun* (a house) (Jayne, 1906, p. 200). When chanting “*holo ka wai lana,*” the base figure is transformed into a triangle.

When “all is gone” is chanted, opposite strings of the figure were pulled to cause the figure to disappear with each performer holding its own string.

Kauhale a Limaloa can be transformed into what Dickey called *Kuahiwi* (Mountain). This triangular figure is used to represent water or the mist that caused mirages to disappear in “*a pau ē, a pau la.*” Another transformation occurs by expanding one side of the base figure to form *Kanaloa*, god of the ocean and sea represented by one of his sea forms, the humpback whale or *koholā*. This is the same figure for the Māori, *Te Tohorā* (Anderson, 1979, p. 140).

Dickey (1928) mistakenly called this base figure, *Hale o Pele* (House of Pele), *Kuahiwi o Haleakala* (top of Haleakalā), and *Hale Inikini* (Indian House) and is perplexed that the latter does not look like the figure at all (p. 148). However, he may not have known that by manipulating the central, parallel strings of the figure, the above named figures are made. By pinching and lifting the central strings upwards, *Kuahiwi o Haleakalā* (Haleakalā Mountain) is created. By pinching and pulling the same strings downwards, *Hale o Pele* (House of the Volcano Goddess, Pele) is made. *Hale Inikini* (Indian House) is achieved by pinching upwards at the cornices, where all strings intersect and the four corners form a teepee. The same variations of the string figure are also constructed by the Māori but named *Te Whare Kēhua*, *Te Rua Kūmara*, and *Te Motu Tohorā*. Note the similarity between the spirit houses of Limaloa and *Te Whare Kēhua* as well a reverence to Kanaloa in *Te Motu Tohorā*.

Te Enata Henua of Hiva'oa in the Marquesas call the base figure *hahaua* (great sting ray), and Maupiti calls it *i'a* (fish) (Handy, 1929, p. 49). I have seen a performance of the Mo'orea version of *hahaua*. The woman manipulated the figure herself using her hands, feet, and teeth as “helpers” as she sang so beautifully a story of her island. The wide dispersion of Kauhale a Limaloa in the Pacific demonstrates the sensitivities of ocean faring, island peoples who share similar spatial understandings and affections.

**Kalalea.** *Kalalea* is a string figure for the mountain cliff overlooking Anahola. It is the cultural and familial landmark for Anahola families and the subject of admiration in chant: “Nani wale ku'u 'ike 'ana la

e lā i ka luna a’o Kalalea. How beautiful is what I am beholding above at Kalalea.”

In the middle of the Kalalea’s cliff face was a hole which unfortunately collapsed after a hurricane. Locals say that the warrior-king, Kawelo, threw his spear with his supernatural strength and that is what pierced Kalalea; however, that feat should be attributed to Kapūnohu, who on a bet with Kemamo, pierced it with the famous spear called Kanika’a from Kohala. Older stories say that the primordial bird, Kīwaha, was imprisoned in the valley basin behind the hill when he heard raucous humans on the seaside of the mountain, he pecked a hole in the mountain to view the activities.

The string figure shows this hole, Koananei [Konanae, Kōnane]. The mountain peaks are shown by triangles in the upper portion of the figure.

### Mele pana, mele hei

Aloha wale Kalalea noho ma i uka  
*I pity Kalalea living up the mountain*

E pili ana me Koananei  
*Embracing Koananei*

Me Kō’ulau i ka malia  
*While Koula has a calm place.*  
(Dickey, 1928, p. 111)

The people of Mo’orea in French Polynesia created a similar string figure, *Moua Puta*, that explained a hole in a mountain pierced by the spear of an ancient hero (Handy, 1925, pp. 62, 63). The same figure is called *Te Puta a Vai Ami* on Tautira, a peninsula on the island head of Tahiti Iti, French Polynesia. They are not made in the same way as *Kalalea* but the memorialization of heroic deeds is strikingly similar to Kapūnohu and Kanika’a.

*Pae māhū o Kaua’i.* *Pae māhū o Kaua’i* is translated as “Hermaphrodites of Kaua’i.” These *pae māhū* (hermaphrodites) are memorialized in petroglyphs found at the mouth of Wailua River, especially at low tide. The petroglyphs are unusual in that they are the only examples in Hawai’i showing humans in spiral form. Connected spiral-like loops are found in the *hei* figure.

The *pae māhū* came from Kahiki. According to Wichman (1985), the *pae māhū* were chiefs from the Marquesas who lost a surfing contest with the goddess, Kapō’ulakīna’u, and who were consumed by a wave and later turned into stone (pp. 70–75). They may have been related to or were the same *pae māhū* of O’ahu that Puku, Elbert, and Mo’okini reported to be twelve *kahuna* (medical healers) from Kahiki (1974, p. 173).

Another name for these rocks was the “Eight Brothers of Māui” (Joesting, 1988, pp. 7–8.). According to the Joesting version, the Māui family lived at the mouth of the Wailua River. When Māui pulled Kaua’i to O’ahu by canoe, his brothers turned back in disobedience to see what was happening. Because they disobeyed, he turned them into the eight boulders. This is improbable because Māui’s *’uā* (feats, lit. shouts) did not include this nor did *kupua* (demigods) have such power. However, other stories verify that Māui’s family lived at Wailua. As noted previously, Māui wrested the secret of firemaking from Ka’ālaehuaḡ and her mudhens who lived at Manu’ena in Wailua Nui. Moreover, one version of the string figure *Pae māhū o Kaua’i* bears a resemblance to the Māori string figure *Maui or The Four Brothers* (Anderson, 1979, p. 122). Could *Pae māhū o Kaua’i* have once told of Māui and his brothers?

Dickey only recorded Ni’ihau versions of the string figure *Pae māhū o Kaua’i*. Both versions are unusual because they begin with the string loops on the thumbs—no other Hawaiian string figure begins this way. When Averkieva & Sherman (1992) noted “The Kwakiutl string figures also bear resemblance to those of Hawai’i” (p. 5), they were referring to *pae māhū*. We know that cedar logs from the northwest coast of North America arrived in Hawai’i on ocean currents because canoes were made from them. Could this string figure be derived from an errant group of male travelers from the northwest coast who were brought here by those same currents? Could wayward Kwakiutl have been this mysterious group of *māhū*? It is an intriguing connection.

### Chanting the Landscape

The chief method of chanting the landscape was through *mele pana*. *Mele pana* located place names and



landmarks and *hei* showed spatial relationships and geographic features. The spiritual power of place, no doubt, resulted in them being remembered. String figure making was a powerful way to preserve the memory and knowledge of those storied, celebrated, and sacred places. Oliveira (2006) wrote: To know a place is to be able to chant the landscape. *Mele* can be used to connect *Kanaka 'Ōiwi* to their *kulāiwi*; thereby 'mapping' their relationship to those places (p. 239). *Mele pana* could be recited as chant, chanted and accompanied by hula, or accompanied by string figures. *Mele pana* that accompanied the making of string figures were usually accompanied by progressive string figures which is consistent with Polynesian performance cartography. When no *mele pana* existed, the string artist told *mo'olelo* or recited simpler, impromptu ditties to enhance the performance. A single figure would suffice such as *Hale Pa'akai*, *Hula o Lumaha'i*, or *Pali o Kē'e*, figures not included in this presentation.

The fact that *hei* was highly dependent on text, whether it be *mele pana* or *mo'olelo*, is significant for several reasons. Dickey (1928) noted that the Hawaiians of his period borrowed few string figures to none from foreigners. The few figures that were borrowed used nonsensical rhymes and jingles with western themes (e.g., *Pahiolo* [saw], *'Eki* [aces]). It would appear that foreign and alien string figures did not attract Hawaiians or lead them to adopt them because the stories, genealogies, and histories attached to them were not Hawaiian in origin and, thus, held no meaning for Hawaiians.

On the other hand, Hawaiian string figures were adopted by other immigrant groups in the plantation setting. In the segregated plantations, *hei* formed social bridges between people. Unfortunately, the use of *hei* as performance cartography and its other functions diminished as other pastimes and games took hold and they were replaced by western-type games and pastimes. The unfortunate matter is that the games of former years were replaced with electronics that are played solitarily and thus void of the socialization inherent to playing *hei* and other such games.

Another reason for the decline in *hei* practice is related to the close dependence of *hei* on Hawaiian language text. When the Hawaiian language was banned

in schools in 1896, a whole generation was suddenly punished for speaking Hawaiian. The abrupt shift to English had devastating effects on literacy, academic achievement, and the use of the national language among Hawaiians (Benham & Heck, 1998; Kamana & Wilson, 1996).

Since *hei* depended on Hawaiian language text, the trickledown effect of the English-only policy caused *hei* to decline rapidly. Performance cartography dependent on longer *mele pana* declined quickly and resulted in few elders educated after 1896 knowing how to perform them. By the time Dickey (1928) recorded and notated string figures in Hawai'i, a generation had suffered the effect of English-only policies and were becoming illiterate in the Hawaiian canon of knowledge. He wrote

*Doubtless the loss of knowledge of the old allusions, along with the loss of knowledge of the old mythology, history, and the names of winds, and seas, has had a great deal to do with the decline of the pastime of string figures. (p. 12)*

Fortunately, the *kūpuna* photos at the end of Dickey's book remind us of those who loved the land and were willing to allow Dickey to record their *hei* performances for generations to come after them.

### Revisoning the Landscape

A question: Were these chance constructions in string or were the ancients able to construct "maps" in string with conscious intent? The fact that many *hei* figures have antecedents in Kahiki, the traditional Hawaiian homelands in the present French Polynesia, indicate that there was an intent to consciously construct "maps" with *hei*. The *A Mahara* string figures of Ra'iatea and Tahiti and the *Moua Puta* of Mo'orea were some of the figures that demonstrated this purposeful intent.

Furthermore, there are many other *hei* from other islands of the Hawaiian archipelago that serve as "maps" that cannot be discussed fully here but deserve brief mention to demonstrate how widespread this performance cartographic practice was. *Waiū o Lewa* is often translated as *Dangling Breasts* because it displays two dangling loops that are *lewa* (dangling). However,

the figure really refers to the *Breasts of the Goddess Lewa* who resided in the limestone bluffs of Kahuku on the northwest shores of O‘ahu. On that limestone bluff was a cave where Lewa dwelled and where there were two stalactites that resembled breasts that oozed a milk-like substance. It is through the performance cartography lens of understanding that one recognized that *Waiū o Lewa* were the breast-like stalactites of the goddess Lewa. This indigenous lens also redefined *Kanukuokamanu* from merely representing the “beak of a bird” to a map showing the mouth of the Wailoa River in Hilo with *Kanukuokamanu* on the Pi‘opi‘o side of Waiākea and ‘Ōhele on the other.

Descendants of the kingdom of Kaua‘i and neighboring island of Ni‘ihau chanted the landscape of their islands in *mele pana* or narrated place and space in *mo‘olelo* thereby keeping alive the collective memory of storied places. These *mele pana* and *mo‘olelo* served as their “maps” of the land and genealogies of sacred places. Indeed, *Wailua Nui Nanai* and other performance cartographies served to “reference their constructed places, legitimize their existence, and reinforce their legacies” (Oliveira, 2006, p. 212). The conscious intention of *kūpuna* to memorialize place name and sacred space through *mele pana* and *hei* also serve to construct our personal and social identities as Hawaiians (cf. Basso, 1996, p. 5).

Hence, a revival of *hei* as performance cartography in Hawai‘i can serve to strengthen Hawaiian cultural identity, which waned considerably since the 1893 illegal overthrow of the Hawaiian monarchy. With the growing interest in Hawaiian language, history, and culture, *hei* as an education tool has the potential to teach a whole range of subjects through and in the Hawaiian language. Moreover, decolonizing old views and misconceptions of *hei* as a “mere pastime and game” can begin the process of recognizing the academic and cultural worth of Hawaiian string figure making. *Hei* meaning “to snare” has the power to recapture our imagination and creativity.

### He Ha‘ina—An Epilogue

Another Kaua‘i story takes place at Kē‘ē on the ko‘olau (windward) side of the island. In the epic performance of “Hi‘iakaikapoliopole,” Hi‘iaka has dis-

covered that Lohi‘au is dead. His body is brought back from the depths of the earth and positioned in a long house according to an elaborate floor plan with *lei* (garlands) of symbolic greenery and foliage that stretched from corner to corner forming lines corresponding to the ancient meridians of Kanaloa, Kāne, and Wākea. These traditional meridians were similar in aspect to the Tropics of Capricorn and Cancer and the equator. Hi‘iaka performs her rituals on prescribed nights of Kanaloa, Kāne, Lono, Muku, Hilo, Hoaka, Kū, and ‘Ole. This detailed ritual map with its symbolic beauty and imagery was described fully by Ho‘oulumāhieheie (1905–1906/2007 in *Hi‘iakaikapoliopole* Rev. ed. pp. 187–189).

Eventually, Lohi‘au is revived and travels to Hawai‘i to meet Pele. The ritual floor crisscrossed with fragrant and symbolic garlands to revive Lohi‘au is reflected in the string figure referred to by some as *Ka Heihei o nā Keiki*, the race or the string figure making of the children, a Hawaiian name for the constellation Orion. If so, the string figure also serves as a “map” of the stars. But that is another story to revive and tell.

### Ha‘ina pau loa—Conclusion

In conclusion, Oliveira (2009) wrote that “‘space’ is often not defined as ‘place’ until it is given a name and is labeled on a map by the colonizer” (p. 110) but that our place names are our “survey pegs” to the past and “our means to legitimize our existence and hegemony in Hawai‘i” (p. 111). This legitimacy is achieved through recognizing the varied and creative performance cartographic practices of our people. Through *mele*, *hula*, *ino*, *ina*, *mahele*, *aina*, *olelo*, *no‘eau*, *mo‘okū‘auhau*, *hei*, and others not described, our *kūpuna* perpetuated their memories and love for those places so that we can reenact and remember them today.

### REFERENCES

- Anderson, J. C. (1979). *Māori string figures* (Rev. ed.). Wellington, New Zealand: Steele Roberts, Ltd.
- Averkiewa, I. P., & Sherman, M. A. (1992). Kwakiutl string figures. *Anthropological Papers of the American Museum of Natural History*, no. 71. Seattle, WA: University of Washington Press.
- Basso, K. H. (1996). *Wisdom Sits in Places: Landscape and Language among the Western Apache*. Albuquerque, NM: University of New Mexico Press.

- Barrere, D., Kelley, M., & Pukui, M. (1980). *Hula, historical perspectives*. Honolulu: Department of Anthropology, Bishop Museum.
- Beckwith, M. (1940). *Hawaiian mythology*. New Haven, CT: Yale University.
- Benham, M., & Heck, R. (1998). *Culture and educational policy in Hawai'i: the silencing of native voices*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cook, J. (1821). *The three voyages of Captain James Cook around the world*. London: Longman, Hurst, Rees, Orme, and Brown.
- Cook, J. (1825). *The voyages of Captain James Cook round the world: comprehending a history of the South Sea islands, &c. &c.*, 2. London: Jacques and Wright.
- de Silva, M. (1999). *Kūnihi ka Mauna* [Online community]. Retrieved from <http://web.mac.com/halaumohalailima/HMI/K%C5%ABnihi.html>
- Dickey, L. (1915). *Stories of Wailua, Kaua'i. The Kauai Papers, Book 1* (Shelf B-20, MS-2, Box 1). Līhu'e, Kaua'i: Kauai Historical Society.
- Dickey, L. (1928). *String figures from Hawai'i*. Honolulu: Bishop Museum.
- Handy, W.C. (1925). *String figures from the Marquesas and Society islands. Bulletin 18*. Honolulu: Bernice P. Bishop Museum.
- Ho'oulumāhiehie. (1905-1906). *Ka mo'olelo o Hi'iakaikapoliopele* (M. P. Nogelmeier, Trans.) Honolulu: Awaiaulu Press.
- James, V. (2010). *Ancient sites of O'ahu: A guide to archaeological places of interest (Rev. ed)*. Honolulu: Bishop Museum Press.
- Jayne, C.F. (1906). *String figures*. New York.
- Joesting, E. (1988). *The separate kingdom*. Honolulu: University of Hawai'i Press.
- Kamakau, S.M. (1976). *Works of the people of old: Nā hana a ka po'e kahiko*. Honolulu: Bishop Museum.
- Kamana, K., & Wilson, W.H. (1996). Hawaiian language programs. In G. Cantoni (Ed.), *Stabilizing indigenous languages*. Flagstaff, AZ: Northern Arizona University Center for Excellence in Education.
- Kaepler, A. (1993). *Hula pahu: Hawaiian drum dances, Volume 1 Ha'a and hula pahu—sacred movements*. Honolulu: Bishop Museum.
- Kame'eiehiwa, L. (1992). *Native land and foreign desires: pehea la e pono ai? How shall we live in harmony?* Honolulu: Bishop Museum Press.
- Kanahele, P. K. (2011). *Ka honua ola 'eli'eli kau mai: The living earth/ descend, deepen the revelation*. Honolulu: Kamehameha Publishing.
- Karl, J., & Spolsky, B. (1973). *Trends in the study of Athapaskan language maintenance and bilingualism. Navajo reading study report card*. Albuquerque, NM: University of New Mexico.
- King, J., Clerke, C., Gore, J. and Cook, J. (1784). *A voyage to the Pacific Ocean*. London: W. and A. Strahan.
- Louis, R. P. (2008). *Hawaiian place names: storified symbols in Hawaiian performance cartographies* (Doctoral dissertation). Retrieved from Dissertations & Theses @University of Hawaii (Publication No. AAT 3311883)
- Mitchell, D. (1982). *Resource units in Hawaiian culture*. Honolulu: The Kamehameha Schools Press.
- Oliveira, K. (2009). Wahi a kahiko: Place names as vehicles of ancestral memory. *AlterNative*, 5(2), 100-115.
- Oliveira, K. (2006). *Ke alanui kīke'eke'e o Maui: na wai ho'i ka 'ole o ke akamai, he alanui i ma'a i ka hele 'ia e o'u mau makua* (Doctoral dissertation). Retrieved from Dissertations & Theses @University of Hawaii (Publication No. AAT 3216079)
- Pukui, M. K. (1936). Ancient hulas of Kaua'i. *The garden island*, Feb. 18, 25; March 3, 10, 17, 24.
- Pukui, M.K., Elbert, S.H., & Mo'okini, E. (1974). *Place names of Hawai'i*. Honolulu: University of Hawaii Press.
- Pukui, M. K. (1997). *'Ōlelo no'eau: Hawaiian proverbs & poetical sayings*. Honolulu: Bishop Museum Press.
- Pukui, M. K., & Elbert, S. H. (1986). *Hawaiian dictionary*. Honolulu: University of Hawai'i Press.
- Roberts, M., & Willis, P.R. (1998). Understanding Maori epistemology: A scientific perspective. In H. Wautischer (Ed.), *Tribal epistemologies: Essay in the philosophy of anthropology*. Sydney: Ashgate.
- Wichman, F. (1985). *Kaua'i tales*. Honolulu: Bamboo Ridge Press.
- Woodward, D. & Lewis, G.M. (eds.) (1998). *Cartography in the traditional African, American, Arctic, Australian, and Pacific societies*. Volume two, book three. Chicago: University of Chicago Press.
- Zeruvabel, E. (2003). *Time maps. Collective memory and the social shape of the past*. Chicago: The University of Chicago Press.