

Hei –Hawaiian string figures: Capturing the Poetic Visions of a People

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Abstract

Hei is the Hawaiian tradition of string figure making that is unlike the western tradition of cat's cradle and is more closely related to the dance tradition of my people. Our dance tradition, hula, is poetry based and conveys the thoughts, visions, and prophecies of that poetry through chant accompanied by hand, face, and body gesture and movements that are employed to interpret the essentials of the story being told or remembered.

Hei preserves genealogical, geographical, biographical, and biological information. This paper will explore two of these functions: 1) hei as capturing geographical information; and, 2) hei as preserving genealogical information.

In addition, I will discuss my own heuristic experience in learning hei. Spiritual learning is an essential part of my own native Hawaiian heuristics. Spiritual learning is also an important element in my indigenous research methodology.

Poetic Visions of a People

Dr. Peter Hanohano and I were talking about a mutual acquaintance of ours, Emil Wolfgramm, a scholar who lectures frequently on the “poetic visions” of his Tongan people. I especially like when Emil lectures on our common Polynesian ancestor, the so-called trickster, Māui. I demonstrated to Peter the Hawaiian string figure showing Māui's lasso which he used to slow the sun so that the people of Hawai'i would have enough time to do their work. Peter exclaimed, “that's a poetic vision of our people”. Indeed, *hei* or “string figures” are our Hawaiian people's way of perpetuating and recreating the poetic visions of our ancestors.

For me, relearning these figures has been an exciting process of discovery on both a cultural and spiritual level. Because I was only able to learn three hei figures from a *kupuna* “elder” when I was a teenager, I relied on Dickey's *String Figures of Hawai'i*, the sole book on Hawaiian hei in the world, to learn other figures. When the instructions were too complicated, I was reminded of and shown other ways of learning and researching which I believe many indigenous peoples already utilize – indigenous research.

Indigenous research is quite exciting because it affirms the teachings of our *kūpuna* or elders, especially spiritual learning. This is what sets indigenous research apart from other qualitative research methodologies. Here, spiritual knowing is a natural part of the methodology of the native researcher. Gregory Cajete (2000) writes that dreams and visions are some of the “methodological elements and tools of Native science that have traditionally facilitated such learning” (p. 67). Ermine (1999) also writes about this kind of spiritual knowing and Marlene Brant-Castellano (2000) also identifies revelation, dreams, visions, cellular memory and intuition as sources of knowledge (p. 24). Lastly, Margaret Kovach (2009) addresses the issue of direct instruction from ancestors in her new book, *Indigenous Methodologies* (pp. 57, 58, 117).

As more and more of our elders pass away, native Hawaiian researchers like me are seemingly disadvantaged and cut off from our cultural sources of knowledge and wisdom. However, direct instruction from our ancestors is one way in which we Hawaiians can remain connected to those who have passed on to *ke ao pōpolo hiwa a Kāne* “the deep purple clouded realm of Kāne”. To establish this connection, the researcher must know his/her own genealogy because in the Hawaiian belief system the *‘aumāku* or ancestors will only share information with family members. If the researcher cannot identify his or her ancestor, the validity of claimed information received is highly questionable. Moreover, it is implausible for a Hawaiian to receive spiritual information from the ancestors of the First Nations peoples as we have no known genealogical tie to them. Spiritual information is thus privileged information which cannot be accessed by people not belonging to the indigenous group. There is no getting around it.

The indigenous researcher must also know his or her own native language. Others have shared that in a dream such-and-such chief told them to do so-and-so. When I ask what that ancient chief said, they share his words in English. This is questionable because the language of the ancestors is Hawaiian. Although I learned Hawaiian as a second language learner in high school and college, I was fortunate to have close associations with many Hawaiian elders such as my surrogate kupuna, Elizabeth Kauahipaula, and others who strengthened my speaking ability. From these elders I learned a way of listening and speaking. Along with that way of listening and speaking, they also modeled a way of understanding. It is this way of understanding or worldview which further enables the indigenous researcher in problem solving, decoding, and interpreting data.

Lastly, it is also imperative that the indigenous Hawaiian researcher of today have some hands-on, breathing and living experience in a cultural activity. For some indigenous peoples, culture is a continuing way of life. For most of us Hawaiians, assimilation and alienation from the land has separated the majority of us from our living culture so cultural activities like *hula* ‘traditional dance’, canoeing, planting, fishing, arts such as barkcloth fabrication and design, featherwork, and carving, and more recently the warrior art of *lua*ⁱⁱ are ways to remain culturally connected. Mastery of one or more of these cultural ways of knowing assists the researcher in understanding other aspects of culture. In my situation, previous

training and ritual graduation in Hawaiian chant and dance assisted much in my understanding of how the chants and stories that accompanied the string figure worked, and, as a result gave me insights as to how to reproduce the figures based on the deeper meanings of the chants.

The following two case studies are examples of my indigenous Hawaiian research.

The Sun Teeter Totters

The string figure, *Kūhau Piyo ka Lā*, is considered a classic amongst Hawaiian practitioners. It is accompanied by an unusually long chant in terms of string figure making:

<p>Kūhau Piyo ka Lā Ka lā i ke kula o _Ahuēna Komo i ka laī o Kailua lā, _O Kona _OKona ia o ke kai malino He lae o waho o Kapūlau Kani ke ayo i Waiyulaŷula, _O Kayū _OKayū ia, _āna kua makani, Lele koaŷe Kaumea lā, _o Puna _OPuna ia o ke kai kōloa i ka ulu hala E nū ana ke kai o Keaŷau lā, _O Hilo _OHilo ia o ka ua kinai Kinakinai i ka ua maoyole lā, _o Hāmākua, _OHāmākua i ka pali Koŷolau E nahu ana ka niho i ka ipu I ka pali o Kohalālele _OWaiپیو lāua _o Waimanu _OKohala iki, _OKohala nui _OKohala ua _Āpaŷapaŷa _OPili lāua _o Kalāhikola _Onā puŷu haele lua o ke kanaka _OKāneŷoyōpa e neŷe ana ma ka huŷahuŷa me ka _alaŷala pāŷina pōhaku Aloha kākou.</p>	<p>The sun rises and totters over the plains of Ahuēna It enters into the calm of Kailua here in Kona Kona of the calm seas Now at the cape outside of Kapūlau The puffins of Waiyulaŷula cry, now at Kaŷū This is Kayū, a wind-blown land hauna i ka lepo suffuse with earthiness Where the tropic bird flies, now at Puna This is the Puna district where the sea roars in the hala grove And the sea of Keaŷau groans Now at Hilo of the neverending rains Unextinguishable are the rains that never clear now at Hāmākua Hāmākua of the windward cliffs The teeth bite into the gourd The feathergathers go along the cliffs of Kohalālele Now the valleys of Waipiŷo and Waimanu appear Great Kohala, Small Kohala Kohala of the strong _Āpaŷapaŷa wind Now appear Pili and Kalāhikiola hills The companion hills of man There is Lame Kāne crawling about in the sea foam where the ink sacs burst open. Let us love.</p>
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According to Dickey (1928), the chant is a love song recounting the travels of young lovers in Kona who eventually break apart in Kayū, come together in Puna, travel to Hāmākua and

finally come together in Kohala. As the chant moves from district to district, the string figures are changed into new shapes representing each of the districts that the lovers pass through.

With regards to *Kūhau Piyo ka Lā*, Dickey (1928) wrote that “the chant is known to many Hawaiians who do not know how to make the string figure.” (p.14) That statement motivated me to learn the figure. I had learned and mastered the chant but did not know how to construct it.

While I was successful learning a dozen or so figures from Dickey, I could not interpret the instructions recorded for *Kūhau Piyo ka Lā*. There was a major roadblock to learning. Sometime during my yearlong attempt and daily frustration, I was reminded of the admonition of some *kūpuna* ‘elders’ at a song writing workshop in the mid 80’s. That workshop was two hours and every elder in the room spoke of his or her own version and experience with this saying: “If you want to write a chant or song, you have to pray. You have to pray to God (Jehovah, added for clarity) and He will give you the ability to write.” We didn’t get step-by step instructions, handouts, or formulas. Just the words, “Pray!” This advice worked for me when I wrote my first song so I embraced their guidance again. As the sun was settingⁱⁱⁱ, I put away my string, said a prayer and uttered a short Hawaiian chant asking for insights into learning Dickey’s seemingly difficult-to-understand written instructions. That night I received a dream in which one of my *kupuna* ‘ancestor’ visited and chanted to me. This female ancestress did not show me any sign or even demonstrate how to create the string figure. All she did was chant.

The next day I sat down to decipher Dickey and in my usual frustration I set the instructions aside to clear my mind. During that waiting period I was somehow led or inspired to allow my fingers to move intuitively. This is what I was led to do:

1. Loop over thumbs and index fingers.
2. Hook little, ring, and middle fingers over distal index string then bring hands close together so that index fingers can hook the thumb-index back string. With indexes facing downward and pulling away turn from each other simultaneously turn them outwards and upwards under their own distal strings. Release little, ring, and middle fingers.
3. From proximal side the little fingers enter the index loops from below and hook down the proximal index string.

Compare this to Dickey’s instructions (only first 3 of 21 steps):

1. Position 1 (loop over thumbs and little fingers with strings running over palms)
2. From distal side pick up left palmar string with ball of right index. Pass left index from proximal side into right index loop, and from the distal side with ball of left index pick up right palmar string. Extend, keeping indexes bent. This is Opening A with indexes turned down.
3. Pass indexes from proximal side into little finger loops. Release little fingers.

The aforementioned, inspired initial steps unlocked the rest of the instructions which were more easily decipherable. I would explain that my muscles also seemed to have some memory of the figure although I had not learned it before.

I would compare my result with the figures illustrated in Dickey as a way to affirm and test the resulting figures. This is largely how I learned each figure in the progression of moving string figures made for the retelling of the story of *Kūhau Piyo ka Lā*. Thus the figure of the sun *rising and tottering of the plains of Kona* transforms to a figure

representing *Kona*, which changes to a figure representing *Kayū*, then *Puna*, *Hilo*, *Hämākua*, *Waipiyo* and *Waimanu*, and lastly *Kohala*, then companion hills, then a man crawling along the shoreline. These figures are very much like road signs on one level. They are also symbolic with deeper meanings at another level that will be discussed below.

Some movements described by Dickey seemed nonsensical to me. For example, when creating *Hämākua* and when chanting the line “the gourd is being gripped by the teeth” he lays the figure on a table, separates out two dangling loops and picks it up again. Instead, I took a lead from the Hawaiian text “*e nahu ana ka ipu i ka niho*”, and grabbed hold of the lead string (representing the rim of a gourd) with my teeth as I separated the two dangling loops in the air that would eventually represent the valleys of *Waipiyo* and *Waimanu*.

Throughout the learning of the chant and *hei*, knowledge of the Hawaiian language assists the creator in constructing the figure. For example, when the chanter says *Komo i ka laʻyi*, he inserts both indexes below each arm of the figure representation for the teetering sun. *Komo* ‘to enter’ is a signal word for the stringer to insert the indexes into the spaces below the arms of the sun. Dickey does not explain this so only a Hawaiian language speaker would pick up on the signal. Another example happens at *Kayū*, when one chants *lele* ‘to jump’ a string is released and it ‘jumps’ upwards revealing the new figure, *Puna*. At *Puna* when the word *nū* ‘to groan’ is chanted, the index fingers twist over a string causing the figure to buckle and sway like a groaning sea. Key words appear throughout the chant to assist the *hei* figure maker in the storytelling. Again, these nuances in the chant are understood only by knowing the Hawaiian language.

As Dickey himself observed, “The Hawaiian is fond of motion or change in a string figure.”^{iv} These motions and actions assist the viewer and learner in understanding and appreciating the story being told. Here the string, constructed within the confines of the hands, assist in the storytelling just as the hands and feet movements of *hula*^v assist in the storytelling. The same cultural rules that dictate the movements of *hula* also apply to *hei* and as such, a novice learner of *Kūhau Piyo ka Lā* can also apply these rules to the learning of the piece. For example, if the fingers move away from the body they must return back. If the *hei* is moved up, it must return down. A movement on the right is usually repeated on the left.

As in *hula*, the art of Hawaiian dance, the word clues in the accompanying chant helps the audience to fully understand the *kaona* or hidden meaning of the poetry and assists the performer in how to convey meaning. For example, when I form *Hilo* my eyes widen to express my awe at seeing the large rain clouds of Hilo represented by the large rectangular shapes of the figure. When I form *Hämäkua*, my eyes narrow because I must now concentrate on pulling the figure downwards to show the narrow opening into the precipitous terrain of Hämäkua. The epithet for Hämäkua is “*puka kihikihi*” or Hämäkua of the “*narrow opening*” and that is shown symbolically in the figure. When I bite down upon the string to pull it apart (as explained above), my expression is fraught with concentration as one would be scaling the cliffs of Hämäkua collecting bird feathers to place within the gourd dangled and grasped only by the human beak. When my fingers successfully unloosen the lower part of the figure, my eyes widen again and expression lightens up even as a weary traveler would when his eyes beset upon the beautiful vistas of Waipiyo, the Valley of Kings.

The last key to solving the problem of relearning *Kūhau Piyo ka Lā* is the application of traditional Hawaiian knowledge and worldview. In *mele* “*song, chant*”, much of the thinking and values of the *kūpuna* are encapsulated in its *kaona* or “*hidden meaning*”. Dickey’s Hawaiian informants provided him some *kaona*. For example, he ends the chant saying that “*these two hills then stand for the lovers as they finally travel the journey of life together*”^{vi} This is true as the hills, Pili and Kalähikiola, have traditionally been referred to as lovers and he would have only gotten this information from the Hawaiians he interviewed. The meanings of the hills also provide a deeper understanding. Pili means “*to be close, to cling*” and Kalähikiola means the “*life-bringing sun or the day bringing salvation*”.

The end figure of *Kūhau Piyo ka Lā* suggests more than stated by Dickey. When the string practitioner chants the last line, *e neye ana ma ka huʻyahuʻya* “*creeping amidst the seam foam*”, the index fingers and thumbs manipulate the figure so that the two hills actually move away from each another. They also get smaller and will actually disappear when extended to the fullest. This suggests a more natural conclusion; the two lovers have come to the end of their natural journey in life.

This idea is supported by traditional knowledge. In speaking of another song, “*Hilo Hanakahi*”, which also tells of a similar journey through the same districts of Hawaiʻi as in *Ku Hau Piyo ka Lā*, a noted educator writes:

Mary Kawena Pukuʻyi says that old people advised her when seeking knowledge of the past to travel with her right (strong) arm on the side of the mountains, where strength lies; if one journeys for relaxation or to assuage grief, he journeys with the sea on his left (weaker) side, so that it may wash away his sorrows and tribulations (Elbert & Mahoe, 1970, p. 50).

The journey in *Kūhau Piyo ka Lā* circuits the island of Hawaiʻi in a counterclockwise fashion with the left shoulder to the mountains and right shoulder to the sea. This kind of travel also

indicates a journey to wash away the sorrows and tribulations of life. The loving couple apparently has tribulations as suggested in the *Kona*, *Kaʻyü*, and perhaps the *Hämäkua* verses. They apparently come together in Kohala at the two hills , Pili and Kalähikiola, but also apparently spend their sunset years separated by death as suggested by the line, *jö Käneyöyöpa e neʻe ana i ka huʻahuʻa*, *lame Käne* creeping along the sea foam.‘

Maimed Woman in the Moon

I overlooked the string figure, *Lonomuku*, for many years. The drawing (figure 25) in Dickey’s *String Figures from Hawaiʻi* was not attractive to me. In fact, I thought it ugly because it was so asymmetrical. It wasn’t until I read the description provided that I realized that I knew this story. I had both read the story *Lonomuku* in an old Hawaiian language newspaper^{vii} as well as heard it told by a kupuna.

Lonomuku was a woman born at Iwi o Pele near the hill Kauiki on Maui. Her husband was a taskmaster who made her carry the refuse a long way in two gourds (*pa-ipu*) and throw it off a cliff. She finally rebelled and with a gourd under each arm, leaped to the moon. Her husband seized one foot, and when he found he could not hold her back, bit it off. She may still be seen in the moon with a gourd under each arm, and but one foot (Dickey, 1928, p. 51).

There are many variations of the story with the Hawaiian language texts offering more and clearer details. Some versions say that Lonomuku detached her foot to escape her husband’s grip. Other versions say that the gourds were actually her children that she transformed in her escape upon rainbow that transported her to the moon. Yet other versions say that the husband, *Aikanaka* was abusive. There is an Oʻahu island version of this story because *Hiyiaka* points to the hill, *Mäyeliyeli* near *Heʻeieia*, which Lonomuku uses as a launching spot to the moon.

In any case, the story of Lonomuku motivated me to learn the string figure. While I had no living kupuna to show me how to construct *Lonomuku*, I had Dickey’s instructions, prior knowledge of the story, and prior experiences with Hawaiian hei construction. However, learning *Lonomuku* by reading Dickey’s instructions were as daunting as learning *Kūhau Piyo ka Lā*. The instructions were also a major roadblock for me. As I learned to do with *Kūhau Piyo ka Lā* I uttered my *pule* *prayer*‘. Again, I received a dream visitation. Pukuʻi (1972, p.172) describes this kind of dream:

The *höyike na ka pō*, the revelatory dream, nearly always brought a message from the *yaumākua*. These ancestor gods spoke clearly or in allusion; they appeared virtually in any of mystical plant, animal, or mineral forms; they hid their appearance in symbol and allegory. But, invariably, the *yaumākua* revealed matters close and pertinent to the waking life of the dreamer and his family.

Kamejēlehiwa (1992) and later Benham (1998) also described knowledge received from the amakua or *kumupa* a spiritual guardians and guides’.

In my dream I saw a kupuna merely stepping over the roots of a large tree. This “stepping” I later interpreted as being the instructions as to how the fingers were to move over and under strings. As I learned through my experience in mastering *Kūhau Piyo ka Lā*, I allowed muscle memory and intuition to guide my fingers in the manipulation of the string. In addition, I used Dickey’s instructions as confirmation and his figures as affirmation to see if my figure was the same and it was.

This hei figure is remarkable because it shows Lonomuku’s torn leg. One side of the figure is long and one side is short. Here is where cultural knowledge must be applied to understand the *kaona* hidden meaning’ of the figure. Symbolically, the two lateral sides of *Lonomuku* refer to the two genealogical branches descended from Lonomuku – senior and junior lines. The Hawaiian genealogist and kupuna know that Lonomuku was also called Hina and her husband called Aikanaka. Thus, in that genealogy, the longer, vertical lateral string represents Puna, the oldest son. The shorter, vertical lateral represents Hema, the youngest son. From Puna descend all of the chiefs of the islands of Kauai and Oahu. From Hema descend all of the chiefs of the islands of Maui, Molokai and Hawaii. Genealogical connections are valued and important to Hawaiians because it shows how we are all spiritually connected. Thus, when the grandparent created *Lonomuku*, she not only retold a story of old but also left her genealogy. No doubt part of her storytelling also included admonitions against spouse abuse as well. The elders also used *Lonomuku* to explain the lunar phases caused by the lame woman’s walkbouts and the craters in the face of the moon, reported to being Lonomuku’s transformed children whom she took with her as she escaped Aikanaka.

Sun and Moon Lessons

Hawaiian ancestral knowledge can be accessed when the indigenous researcher knows his or her genealogy, native language, and is grounded culturally. For many Hawaiian researchers, alienation from our ancestral lands and resources separated us from living our culture. Moreso, then, the Hawaiian researcher must ground himself deeply in a cultural activity. When these conditions are met, the researcher may be better able to receive spiritual learning, a final and essential element to indigenous research.

Although string media have changed the vibrations caused by the working of olonā fiber can now be recreated in the vibrations of yarn, kitesring, or nylon. The “string” imprints of yesterday continue to linger in time and space so that when we recreate string figures today; those same imprints are visible to us again. When coupled with the stories and chants of yesterday, the string figure maker also continues to recreate the poetic visions of our ancestors. By remembering these poetic visions we are educated and inspired by the deep knowledge of the old ones that is still accessible to us descendants today.

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- i Hei also means “to capture or snare”
 - ii Lua is hand-to-hand combat style involving bone breaking, joint dislocation, and nerve destruction.
 - iii It is customary to not make string figures at night as the word ‘_hei’ also means ‘_rigor mortis’ and the movements of the hands at night were thought to resemble the hands of one dying.
 - iv See Dickey, page 11
 - v The traditional art of Hawaiian dance uses symbolic hand gestures, feet and body movement, and facial expressions to tell stories that to glorify and honor the gods, the chiefly classes who descended from the gods, and the land, sky and sea which were manifestations of the gods. There is generally a group that chants and a group that dances.
 - vi Ibid, 18
 - vii Lonomuku, Ka Nupepa Kuʻyokoʻya, March 30, 1865

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