

HEI:
THE DOCUMENTATION OF TRADITIONAL KNOWLEDGE
AND WAYS OF KNOWING AND DOING

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Ho‘ola‘a

E aua ia e Kama, e Kona Moku

Kona moku e Kama e aua ia

O ke Kama, Kama,

Kama, i ka huli nuu

O ke Kama, Kama

Kama i ka Huliau¹

(I hakuia e Keaulumoku)

No laila, ke ho‘ola‘a nei au i kēia hana iā Kama – nā kamali‘i, nā kamalei, nā kama‘āina, ‘o ia ho‘i nā kama e aloha mau nei i ka ‘āina. E ‘au‘a ‘ia ka moku, ka ‘āina, ke aloha, a me ka ‘ike o nā kūpuna. E ho‘opa‘a pono ma ka na‘au. E ho‘omau!

¹ From *Na mele aimoku, na mele kupuna a me na mele pono i o ka moi Kalakaua I.*

Dedication

Oh Kama, look, and observe thy lands

Oh thy lands oh, Kama oh, retain them

Thou child, child

Child of the highest grade

Thou child, child

Child of the turning tide.²

I dedicate this work to Kama— the children, native sons and daughters and all those who love the land. Retain the legacy, the land, the love, and the knowledge and wisdom of our ancestors. Remember and keep your heritage alive. Persevere!

² Translation by Queen Lili‘uokalani

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Abstract

This dissertation explores *hei*, the act of string figure making and its role in the documentation of traditional knowledge and ways of knowing and doing. Unlike traditional dissertations that are organized by chapter, the following is organized by stand-alone articles.

Article 1, “Mai pa‘a i ka leo: Don’t hold back the voice,” talks about developing leo or voice as well as silencing. It proposes ways to restore voice through authentic texts and experiences, especially through *mānaleo*, our native speakers of Hawaiian and traditional holders of knowledge and teachers of the Hawaiian voice.

Article 2, “Life is Memory; Life is Transmission,” looks at how knowledge is transmitted and how a deeper understanding of *hei* and its role and function in the culture counters the myths and stereotypes imposed by outsiders. It also calls for taking responsibility to preserve and expand the traditional archival space.

Article 3, “Indigenous Learning and Hei,” explores how spiritual instruction through dreams, prophecies, cellular memory, and intuition can assist the indigenous researcher in the quest to reclaim and revitalize performances such as *hei*.

Article 4, “Hei: Hawaiian String Figures: Hawaiian Memory Culture and Mnemonic Practice,” explores the question, “How did my *kūpuna* (ancestors) remember long texts and performances?” and examines Hawaiian memory culture via a case study of *hei*. However, this is not an article on forgetting but on remembering.

Article 5, “Performance Cartography of Kaua‘i,” concludes the dissertation with a complete program of performances for Kaua‘i, the *kulāiwi* or homeland of my Akana family. It looks at *mele* (chant), *hula* (dance), *‘ōlelo no ‘eau* (wise sayings), *mo ‘okū ‘auhau* (genealogy), *mo ‘oleo* (story), *mahele ‘āina* (land divisions), *inoa ‘āina* (land names), and, finally, *hei* performances of Kaua‘i as evidence of the rich cartographic tradition that existed throughout Hawai‘i prior to contact.

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Overview

The following excerpts by James King, the second lieutenant who accompanied Captain James Cook on his Third Voyage to the Pacific, offer a glimpse into Hawaiian society and the way of life of my ancestors in the 1700s:

Koah conducted us to the top of this pile. At our entrance we beheld two large wooden images with moft³ distorted features, having a long piece of wood, proceeding from the top of their heads, of a conical form inverted; the other parts were covered with red cloth. Here Captain James Cook was received by a tall young man, having a long beard, who presented him to the images, and chanted a kind of hymn, in which he was assisted by Koah. (King, 1784, p. 152)

Captain Cook was now aloft, in a situation⁴ truly whimsical, swathed in red cloth, and hardly able to keep his hold in the rotten scaffolding. In this situation he was entertained with the chanting of Koah and Kaireekaea, sometimes in concert, and sometimes alternately. After this office was performed, which was a considerable duration, Koah let the hog drop, and he and the Commodore immediately descended. He then conducted him to the images just mentioned, to each of which he expressed himself in a sneering tone, snapping his fingers at them as he passed. He then presented him to that in the centre; which, from its being habited in red cloth, appeared to be in the highest estimation. He fell prostrate before this figure, and kissed it, requesting Captain Cook would do the same; which he readily submitted to; being determined to follow Koah's directions throughout the whole of this ceremony. (King, 1784, p. 154)

These early accounts are intriguing. They also raise a lot of questions like “What exactly was the hymn chanted by the bearded man at the entrance of the place that Cook was led to? Was the “office” that was of “considerable duration” the *Kumulipo*, the epic cosmogony and genealogy of the chief, Kalaninui‘Ōiama? Lili‘uokalani (1897, introduction) stated “this [Kumulipo] is the very chant which was sung by Puou, the High Priest of our ancient worship, to Captain Cook whom they had surnamed Lono, one of our chief gods, dwelling high in the heavens, but at times

³ moft = most. The /l/ or long s fell into disuse in Great Britain and the United States between 1795 and 1810.

appearing on earth.” Was it really Puou who chanted the *Kumulipo* and not Koah and Kaireekēea that chanted this office or chant?

As a lifelong student of Hawaiian ceremony, protocol, and performance, these are some of the questions I yearn to find answers to. While there are gaps in time and space that make this quest difficult, there are connections that can be made. These are connections that are made through my own experience and training in and understanding of traditional Hawaiian performance. Thus, when Cook’s party was stopped at the entrance to be properly presented to the images with “some kind of hymn,” I immediately recalled our practice of chanting a *mele kāhea* (calling chant) before entering into the *hālau hula* (traditional dance academy) and other sacred sites and places. This process of association led me to see how my traditional training in Hawaiian performance arts could assist me in understanding how traditional knowledge and ways of knowing were documented and that can be documented for future generations.

As a result, I rely on performance or *hō’ikēna* to frame this thesis. I utilize performance as a metaphor to conduct and analyze my research. Our contemporary culture often uses performance as a metaphor such as “football as a performance metaphor,” “jazz as a performance metaphor,” or even “engineering as a performance metaphor.” Performance itself goes beyond the restored behaviors of ceremony or that which is practiced and rehearsed and then performed. Performance marks identity, tell stories, and is found in ordinary life.

In fact, metaphor forms an important part of Hawaiian *mele* or chanted text. Kame‘eleihiwa (1992) was one of the contemporary Hawaiian historians who utilized metaphor in her research. Another motivation for me to use metaphor was inspired in part by Dening’s (1980) commentary on metaphors and models:

Metaphors enlarge within a closed system; models belong to an observer’s perception...Metaphor is an instrument of daily understanding within a closed system...But models are always schizoid: they belong to two systems, the one they describe and the one that constructs them. (p. 93)

Metaphors are natural; models are mechanical. Metaphors are quickly understood and highly visual. Models are abstract. Lastly, metaphors are relational and representational, especially in regards to identity.

As a result, I want to use metaphor in this research as an exploratory process because of the relational and representational aspects. As a Hawaiian researcher, I place myself in the

position of a participant and not as a passive observer. Again, I use Hawaiian performance as an organizing metaphor that directly involves me as an active participant in research. I utilize *hō'ikena* as a frame because it appeals to me as a native Hawaiian that was nurtured in the oral performance arts of traditional dance and chant. I use *hō'ikena* as a frame because I am comfortable with it and believe other indigenous researchers can identify and find comfort in it too.

A particular performance that I learned, researched, and desired to document and continues teaching is *hei*. *Hei* has several meanings besides “string figure.” One is “stratagem;” another is “to absorb as a knowledge or skill.” Both meanings are appropriate, here, as I desire to construct a stratagem of absorbing and documenting knowledge through *hei*. Thus, *hei* is but a vehicle, a tool, and a method of learning more about Hawaiian ways of knowing and doing.

Background

My interest in Hawaiian performance began in high school. Palani Kahala, a cousin of mine who later became a well-known *kumu hula* or hula master, convinced me to learn hula as a means to learn the Hawaiian language as both of us were learning our native tongue with our first teacher, Mrs. Sarah Quick. This interest branched into learning *oli* or chant, various arts and crafts, and later the Hawaiian methods of creating *hei* or string figures. This dissertation, then, centers around my training and learning in hula, *oli*, and *hei* as performance with an emphasis on the latter.

In 2007, a director of Māori television programming contacted the agency I was working for asking for referrals on practitioners of *whai*, the Māori version of *hei*. The few contacts that I gave him said they were not expert enough to assist in his documentary program so I shared with him that I had learned a few from a Hawaiian elder and could possibly assist. This encounter and the questions asked in his email below became the impetus for me applying to my doctoral program in Curriculum Studies in College of Education at the University of Hawai‘i at Mānoa. If my Māori friend was interested in *hei*, so might others, especially Hawaiians. In fact, the questions in Wiremu’s email formed my initial set of questions that spurred my interest in applying to the doctoral program. Here is his email:

Email.

Kia ora Kalani,

Nga mihi aroha ki a koe! Kei te mihi atu i roto i nga ahuatanga o te waa.

Aloha mai!

Thank you so much for your reply!

I appreciate your email and it sounds like you enjoy string games as much as I do. I've been doing string games since I was a child. My mother who was an expert taught me many traditional Maori figures. We call string games 'Whai' in Aotearoa and it is something that I've always loved doing.

I am making an independent doco [documentary] interviewing indigenous people around the world, who want to share their stories about string games and figures. Why they love string games. What they have learnt. Early memories of string games. How string games have influenced their lives. How string games have helped with cultural identity? Just anything really that people want to share about string games.

I have a few questions for you!

What is your first memory of string figures and games?

How old were you?

Who taught you the string figures?

How long did you learn the figures?

Did you learn songs or chants to help remember your string figures?

As a child, did you see elders doing string games?

Were there many other children or people doing string games when you were growing up?

Today, how many figures can you do?

Did you learn European figures such as Cup and Saucer or Parachute?

You mentioned in your email that you wish to master 'HEI', why do you have such strong interest in string games?

Today, do you see or know of many people who still do string games?

Thank you so much for reading this email. I look forward to a reply! I would also be interested in hearing from the other people you know, who enjoy doing string games!

Kaati ake,

Ka mutu aku mihi i konei. Noho ora mai ra i raro i te manaakitanga o te runga rawa.

Naku noa

NA

WIREMU TE KIRI

(W. Te Kiri, personal communication, June 6, 2007)

Wiremu traveled from New Zealand to Hawai‘i to interview and videotape me performing some of our Hawaiian string figures. To my surprise, I knew nearly 40 figures. He also demonstrated some beautiful Māori string figures such as *Te Ahi i tunua ai te Manawa o Nuku-tau-paroro*, the name itself a performance of beauty. I taught him *Kukui Lau Ania*, which he really wanted to learn. It is a figure that represents burnt kukui leaves of the favorite tree grove of Hi‘iakaikapoliopole destroyed by Pele, goddess of fire. He taught me *Te Mooti* which was exactly like the Hawaiian *Mo‘o Iki*. As a result of our exchange, Wiremu shared with me that he was motivated to go back and learn more of his own chants and even to compose chants where there were none as I had done. I was also motivated to learn more hei using a book that my teacher of hei, Mrs. ‘Āina Keawe, had referred me to. This meeting also led me to want to investigate more deeply our ways of knowing and passing on of knowledge.

At around the time of Wiremu’s visit, I was working in a Hawaiian serving institution and monitoring a grantee at the University of Hawai‘i College of Education who was interested in increasing the number of Native Hawaiian teachers in heavily populated Hawaiian communities. As a former educator, I was greatly inspired by this program, Ho‘okulāiwi: Center for Native Hawaiian and Indigenous Education, because I, too, felt that the way to increase Hawaiian student achievement in our public schools was to increase the number of Native Hawaiian teachers with whom the Hawaiian student could identify with as a positive role model. In fact, that was one of my motivations for wanting to become a teacher. In any case, sometime during the course of my monitoring activities, the director of Ho‘okulāiwi, Dr. Margie Maaka, a native of Aotearoa, planted a seed in me to consider the Ph.D. program especially because Ho‘okulāiwi also purposed to mentor Native Hawaiian scholars in advanced degree programs. She and her Māori colleagues from the University of Auckland also shared the lofty goal of having 500 Māori Ph.D. holders and were on the path to surpass it. I was also inspired by the number of young Hawaiian scholars I had met and worked with in capacity as a higher education

advocate at a Hawaiian-serving agency. In 2009, I applied to the graduate program with the support of Dr. Maaka and Dr. Morris Lai, a highly respected researcher at the university for whom I had worked for as a curriculum developer in 2007.

I knew that I wanted to do my research and write my dissertation on hei. If Margie had not allowed it, I would not have entered the program. I would not have had the passion or drive to write on anything else. In retrospect, the traditional types of dissertation, the quantitative or qualitative study, would have been much easier for me but it would not have motivated me much. At that time, I had no real passion for “studies” as I felt that we Hawaiians were studied too much and I did not want to be another intruder and raider of knowledge. However, much was being written on Hawaiians by non-Hawaiians and I wanted to change that. I also wanted to produce something that would help my community, especially the children in Hawaiian language immersion programs. Hei is a kind of performance that was not being perpetuated anymore. Hence, this study aims to revitalize hei performance.

Structure

Unlike traditional dissertations that are organized by chapter, the following are arranged by articles. Each article is written as a stand-alone piece. Instead of having the dissertation sit on a shelf, the stand-alone articles are meant to be published in journals so that the research is disseminated. In addition, as a result of treating each article as stand-alone research, I was able to explore and examine concepts related to hei performance but also unique as topics that allowed for deeper investigation. For example, my study and research on *Ku e Hoopio ka La* or *Kuhaupio*, a very long series of connected string figures, led me to delve more into mnemonics and the principles of Hawaiian memory culture.

Papahana: Dissertation Format

The articles are ordered according to the traditional and spiritual principles of a Hawaiian *Papahana* or program. First, there is request to enter into sacred space which will be accomplished in Article 1, “Mai Pa‘a i ka Leo: Don’t Hold Back the Voice.” Second, the gods and *ali‘i* (chiefs) are given honor and respect in Article 2, “Life is Memory, Life is Transmission.” Thirdly, the spiritual aspects of life are acknowledged in Article 3, “Indigenous Learning and Hei.” The more mundane and common aspects of life are explored in Article 4, “Hei: Hawaiian String Figures: Hawaiian Memory Culture and Mnemonics.” Lastly, the *Papahana* ends with Article 5, “Performance Cartography of Kaua‘i.”

Article 1, “Mai Pa‘a i ka Leo: Don’t Hold Back the Voice,” appears first in the Papahana because the “Mai pa‘a i ka leo” part of the title is taken from a chant recited as a *mele kāhea* or password chant used to gain entry into a lodge of learning. Performance and study cannot proceed without permission. Given this permission, the article describes finding my voice as a young Hawaiian and the teachers and role models that helped me develop my *leo* or Hawaiian voice. It goes on to recount acts of silencing and proposes ways to restore voice through authentic texts, experiences, and *mānaleo*, the authentic holders and teachers of the Hawaiian voice. Lastly, it provides a format that quadrangulates four performance genre: *mele oli*, *mele hula*, *mo‘olelo*, and *mo‘okū‘auhau* (chanted text, danced text, story, and genealogy). This quadrangulation holds me as a researcher accountable to tradition and to my community.

Article 2, “Life is Memory; Life is Transmission,” looks at the four foundational elements of *mo‘olelo*, *mele hula* and *mele oli*, and *mo‘okū‘auhau* in *hei* and how their existence and renewed practice and performance help to counter the myths and stereotypes imposed by outsiders and that have weakened the vitality of *hei*. It identifies the *ho‘opa‘a* or retainers of knowledge and the *kumu*, sources of knowledge, as those responsible for transmitting life knowledge and memory and for preserving and even expanding the archival space. Lastly, it ends with a discussion of ways that the archival space and memories within that space can be made viable and vital.

Article 3, “Indigenous Learning and Hei,” explores how spiritual instruction through dreams, prophecies, cellular memory, and intuition can assist the indigenous researcher in the quest to reclaim and revitalize performances such as *hei*. Indigenous learning is based on spirituality and the spiritual connections made are keys in helping native peoples reclaim, restore, and strengthen identity as native peoples. All researchers encounter obstacles and problems in their study. This article addresses some of those problems such as when unraveling the knots in a ball of tangled string.

Article 4, “Hei: Hawaiian String Figures: Hawaiian Memory Culture and Mnemonic Practice,” explores the questions, “How did my *kūpuna* (ancestors) remember long texts and performances?” As an example of a long text, *Ku Hau Pi‘o o ka Lā*, is presented and analyzed for mnemonic device and structure. In addition, the nine string figures made to accompany *Ku*

*Hau Pi ‘o o ka Lā*⁵ are analyzed for mnemonic structure and meaning. This article further explains how auditory, visual, kinesthetic, and cultural mnemonic devices in both oral performance and written text synthesize to form a system—a memory culture. This is not an article on forgetting but on remembering.

Article 5, “Performance Cartography of Kaua‘i,” concludes the Papahana with a complete program of performances for the island-home of my paternal grandfather, Eli Akana, of Anahola, Kaua‘i. After reviewing what performance cartography is, the article proceeds to present mele, mo‘olelo, mo‘okū‘auhau specific to Kaua‘i as examples of performance cartography. It also looks at *mele* (chant), *hula* (dance), *mo‘okū‘auhau* (genealogy), *‘ōlelo no‘eau* (wise sayings), *mahele ‘āina* (land divisions), *inoa ‘āina* (land names), and, finally, the many hei performances of the island of Kaua‘i as evidence of the rich cartographic tradition of Kaua‘i but that existed throughout Hawai‘i.

⁵ Dickey (1928, p. 14) uses *Ku e Ho ‘opi ‘o ka La* and *Kuhaupio* for the series of string figures.

Article 1

Mai Pa‘a i ka Leo: Don’t Hold Back the Voice

As a student of hula for many years, one of the chants that we recited before entering into our *hālau* (house of learning) was “Kūnihi Ka Mauna.” The line, “Mai pa‘a i ka leo” forms the basis of this article as no learning took place unless the call of the hula master was heard giving permission for us students to enter into the *hālau*. Thus, through the chant I ask permission to delve into the topics and issues concerning *leo* or voice.

Kūnihi ka mauna i ka la‘i ē	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	Rivulet strewn 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.

(E. McKenzie, personal communication and instruction, May 1978)

The following section describes my journey to find and regain *leo* and in many ways, regain my identity as a Hawaiian. When I refer to “voice” I am speaking of my English language voice and when I refer to “leo” I am speaking of my Hawaiian language voice. Here, both voice and *leo* refer to the ability and confidence to convey meaning through language. Voice and *leo* have emotion and spirit and qualities that are unique to an individual but common to the people who share that language.

Finding Voice, Finding Leo

Finding voice as a student in English medium schools.

In the third grade, our teacher, Mrs. M, gave us an assignment to write about what we wanted to become when we grew up. I was really excited about this topic and wrote that I would become a doctor, having spent many days in the hospital when I was younger. I handed in my paragraph and went on vacation. When I returned, we would all read our paragraphs aloud. As soon as I began, the teacher said gruffly, “Keith, speak up. We can’t hear you.” I struggled with volume control because I didn’t have a strong voice as a child and was rather shy.

As I read my essay, I told my classmates that I wanted to become a doctor to help children who were sick. I remember that I was the only one who wanted to be a doctor and proud of that fact. However, instead of encouragement Mrs. M. said this to me, “Keith, you can’t become a doctor because you would have to go to college and Hawaiians don’t go to college.” I was too embarrassed to respond to her. Her words stayed with me for many years.

I tell this story to illustrate the power of words and school authority. Fine (2003) wrote that “silencing signifies a terror of words, a fear of talk” (p. 14) and spoke extensively on the pedagogical and curricular muting of students’ voices (p. 22). Shor (1999) found that cultural silence or subordination often occur during literacy events and interaction such as my own subordination by this third grade teacher. He said in an interview with Parascondola (2001, On-line interview) that “We’re risking the cultural intimidation of especially non-elite students, so that they lose their sense of authority (the right to be an author).”

Before the start of my fourth grade year, my family was displaced from the Coast Guard housing at Red Hill due to some redevelopment of the community. It was a sad moment because I had many fond memories of exploring trails, climbing trees, picking guavas and mangoes to eat, and running freely in and out of neighbors’ yards. On the other hand, I was happy to get away from Mrs. M. When my family moved from that school to Kalihi, Mrs. M. said to me, “Maybe now your parents can come to P.T.A meetings.” I wanted to say something back to her but could not. I sat powerless and silent but was happy to leave her behind.

Fourth grade at Kalihi Kai Elementary School in urban Honolulu was a turning point for me. First, there were no hostile comments from teachers. Second, there was more diversity. It was the first time that I was in a school with Hawaiians other than my relatives. It was also a time when the social studies curriculum focused on the Hawaiian culture, which really piqued my interest and enthusiasm for learning. I remember that we replicated a *lū'au* (feast), and I was selected as the presiding Hawaiian chief. My father brought the *kālua* pig and I felt very special because we only ate *kālua* pig and other Hawaiian delicacies at *lū'au* (colloquial for feast) and also because the contribution played a major part of our class feast. The *kālua* pig reminded me of my “uncles” baking pig in the traditional Hawaiian *imu* (underground oven) for parties at Red Hill. As they waited for the pig to cook, they would bide their time by singing beautiful Hawaiian songs that lulled us to sleep. They had a fun time talking, singing or “kani ka pila” and just reminiscing with one another and this feeling of family has always been associated with feast foods.

In any case, my fourth grade teacher required a research project on anything in the Hawaiian culture that was of interest to us. I recall feeling enthused and empowered by this project but the problem I quickly encountered was that the only textbook at the time (circa 1966) focused on Hawai‘i’s leading industries of sugar, tourism, and the military as topics of study. Because of the dearth of material on Hawaiian culture, we were encouraged to visit tour agents to request colorful and free brochures.

The most useful were colorful maps of the Hawaiian islands. These fold-out maps showed only important tourist destinations like the location of sugar or pineapple plantations or important tourist destinations like the Arizona Memorial, Bishop Museum, or the Blowhole. None provided information on authentic Hawaiian culture. I finally ended up talking about tourism because of the paucity of research materials and partly because both of my parents, like many other working-class parents in Hawai‘i, worked in the industry. Looking back, I could have written about my memories and thoughts about *lū'au* and Hawaiian foods although tapping into a child’s cultural experience was not part of the pedagogy of that time.

Finding leo as a student in an English medium school for Hawaiian students.

After my sixth grade year at Kalihi Kai, I was fortunate to have passed the interviews and entrance exams for admission to the Kamehameha Schools, a school established by Princess Pauahi for the benefit of Hawaiian children. I was still shy of voice and actually needed to take speech classes to overcome my use of Hawaiian English Creole. I didn't know, for example, that there was a difference between "Go ax your muddah" and "Go and ask your mother." I did not. Despite the need for minor adjustment to my pronunciation, I flourished in my classes.

Many classes were taught by Hawaiians. There was Mrs. Pauline Kaneta's social studies class, Mrs. Esther Rhinelander's Hawaiian music class, Mr. Wright Bowman's craft class, Mr. Tyrone Rhinehardt's religion class, and Mrs. Esther McClellan's Hawaiian culture class. I learned my first *oli* (chant), "Onaona i ka hala," in the seventh grade in Mrs. Rhinelander's music class. Mrs. Winona Beamer, or "Aunty Nona" as she preferred to be called, visited the intermediate school division of the Kamehameha Schools to teach us this important chant. I would later study with her when I got to the high school.

During my eighth grade year, I volunteered at the Moanalua Gardens Association and helped the director file and paste newspaper clippings into a massive scrap book. The Damon family owned the beautiful gardens and also the upper valley, which was being eyed by the state and federal government as a corridor for the H-3 freeway. My job was to locate and file the many news stories on the H-3. I took an interest in this project because the H-3 would cut through Moanalua Valley and through my former home at Red Hill.

As a reward for my volunteering, I was driven by jeep into the virtually untouched Moanalua Valley by Patches Damon, heir to the valley and gardens. There, I learned of the history of the valley and beheld the natural beauty of a former Hawai'i. I never forgot the story she told me about a chant (I would later learn it, "Kahikilaulani Ka Makani") that preserved the names of the *ali'i* (nobles) starting with the oldest and most senior names on the mountain peaks and mountain ridges, to the younger family members

in the names of pools, caves, and other geographic features of the land proceeding towards the ocean. She also showed me my first petroglyph and told me the intriguing story of Kapahikaua-a-Kamehameha, the young baby spared by Kamehameha. After his victorious battle at Nu‘uanu, Kamehameha rushed to the valley and lay his “sword” next to the newborn baby hidden behind the massive boulder-petroglyph called Pōhaku Luahine, thus sparing his life. I later had the privilege of hearing an old wax cylinder recording of the last chanter of the valley, the blind Nāmakahelu, as recorded by the Damon family matriarch, Gertrude M. Damon, of the history of Moanalua. Although I did not understand Hawaiian at that time, I remember being moved the genuine emotion of her voice.

My early experience with environmental activism was enhanced by volunteering for Life of the Land, a group that sprang up in Hawai‘i in 1970 to serve as a voice for the environment. At the federal level, the National Environmental Policy Act was enacted requiring Environmental Impact Statements (EIS). My first assignment was to go door to door in my backyard community in Kalihi and get people to sign petitions against constructing the reef runway. Life of the Land contended that it would be detrimental to the environment with its noise impact and the destruction of the reefs for runway use. Despite community opposition, the runway was built; however, the effort enabled me as a young teen to further develop my voice.

While my volunteering for the Moanalua Gardens Foundation and the Life of the Land were great experiences in helping me to develop my voice, it was during my sophomore year that a life-changing event occurred that would impact on my voice and contribute to the development of leo. That year, the school switched from a manual registration system to a computer-based system. However, there was a glitch in the new system, and instead of receiving French, I was given Hawaiian Language taught by Mrs. Sarah Quick. Also, instead of the mandatory American History class, I received a semester of Hawaiian History and a semester of Hawaiian Culture as classes taught by the late Ms. Nani Bowman. My “accidental” placement in Hawaiian language classes steered me into studying Hawaiian for three years with Mrs. Sarah Quick and subsequently at the University of Hawai‘i for another four years. This accident, or fate, began the discovery and nurturing of my Hawaiian leo.

Furthermore, these classes at Kamehameha were taught by Hawaiians who were, like my Hawaiian teachers in intermediate school, tremendous role models for me to follow. They had confident and assertive voices but used them in humble and sincere ways. I began strengthening my Hawaiian voice, especially with the help of Mrs. Judy Naniolo, Mrs. Diana Nui, and Mr. Walter Kahiwa, talented speech and communications teachers at Kamehameha.

At the end of my sophomore year, I served as a program aide in the School's Explorations program (I describe this program below). While working as a program aide, I was also fortunate to be mentored by Mrs. Ho'oulu Cambra, an educator who was also trained in traditional Hawaiian chant and dance and who happened to be *'ohana* (family). She taught me many hula and was the one who encouraged me to compose my first hula for children using her composition, "A Honolulu Au," as a template. When Ho'oulu chanted, she commanded attention and, as a result, she was very influential in helping me to develop my "teacher voice"—the voice of command.

Other key events in high school helped me to develop my voice. Most obvious to me looking back was my participation in the Speech Club. I continued in speech because when I first entered Kamehameha in the seventh grade, I was referred for speech remediation with Ms. Hayes. To my surprise, my speech remediation brought me to a point where I could debate and engage in other forensic events and win. I also won our school's oratory competition. These were unbelievable and encouraging events for a very shy, creole-speaking child from Kalihi.

Another key event was my getting involved in hula which was only an extra-curricular activity at the time. I need to acknowledge my friend and classmate, Palani Kahala, for involving me in hula. Only after his death did I find out we were cousins. His *kupuna kualua* (great-great-grandfather), Samuel Kekaula, was the brother of my *kupuna kualua*, Kamila Kekaula. It was my *kupuna kualua* who raised his *kupuna kuakahi* (great-grandmother), Sarah Kaluahine Kekaula.

This is how he enrolled me into hula. One day as we waited outside of Mrs. Quick's Hawaiian language class he asked,

"Kalani, do you want to learn hula?"

"No," I answered.

“You should learn hula. Hula will help you learn and know the language,” he said, eventually convincing me to learn hula. The next day the both of us were in Aunt Nona Beamer’s office to learn “E Ho‘i ke aloha i Ni‘ihau.” To my shock and surprise, we would be dancing this in a month’s time in a hula competition, which is where I saw my then-to-be *kumu hula* (hula teacher), Kaha‘i Topolinski.

Palani went on to start a hula club at Kamehameha whose charter is still active today. After high school, he went into the army, and when he returned, he started his own *hālau* (hula academy), which became known for its innovation. I vividly remember one 1988 Merrie Monarch Festival presentation of “Ke Ahi a ka Hau.” One half of the dancers were dressed in red to represent the fire goddess, Pele, and the other half were dressed in white to represent the snow goddess, Poli‘ahu. The effect was non-traditional but dramatic. In any case, my participation in Palani’s hula club, I would say, definitely helped me with stage presence and prepared me for life with Kaha‘i Topolinski, whom I will discuss later because Kaha‘i was definitely an important part in creating my voice and author-identity.

Yet another critical event took place in my junior year at Kamehameha when my principal encouraged me to develop a community service project. A classmate and I developed a program that Mrs. Quick named for us: Ka lawelawe ‘ana a nā haumāna i ke kaiāulu (The Community Service Project of Students in the Community). We patterned the project after the Kamehameha School’s Explorations program. This program provided Hawaiian children completing the fifth grade with a week-long stay on campus to attend classes in Hawaiian language, dance, music, and crafts, followed by daily field trips to places like the ‘Iolani Palace, Bishop Museum, and a beach for canoe paddling. The week’s learning culminated in a night program designed to demonstrate all that the children learned. We replicated this program at Lincoln Elementary School, a public school with a predominant native Hawaiian population. I taught the hula class, Kalena Yim taught Hawaiian sports and games, Stuart Domingo taught Hawaiian music and Patrick Choy taught the Hawaiian language class. We then replicated this project at Kalihi Waena and Blanche Pope Elementary Schools. This high school experience solidified teaching as my career. The experience also gave me opportunities to further develop my “teacher voice.”

However, two contravening episodes occurred during my junior year. I was 16. The first was a mandatory career assessment followed by counseling. During the counseling session, my counselor discouraged me from continuing taking my Hawaiian language and encouraged me, instead, to take Japanese because this language would make me more marketable in the “hospitality” industry. He also discouraged me from going into teaching because there was a glut of teachers in the 1970s. However, a very wise and great Hawaiian leader, Mr. Myron Thompson, visited my high school journalism class one day in his capacity as a newly appointed trustee of the school. He shared how he began his career in social work despite being discouraged from going into that profession. Providentially, he did not listen to the voices of naysayers and was able to help and encourage many Hawaiian youth in his life. He also said something that has always stayed with me, something to the effect that if I’m discouraged from going into a profession as he was and as I was, I should probably go into it because others will listen to the most popular voice and follow it and only the committed and passionate will remain to succeed. His advice proved to be true and because he spoke with truth and wisdom I decided as a junior to go into teaching profession and to continue learning Hawaiian language.

Finding leo as a university student.

I did go on to college, thanks to (or no thanks to) that Moanalua Elementary School third-grade teacher who said, “Keith, Hawaiians don’t go to college.” Ironically, Mrs. M. planted a seed within me to become a teacher in order to nurture the voices of other students like me—the silenced. I wanted to show her, and more importantly, show me, that she was wrong.

I continued strengthening my leo as a Hawaiian language learner. My teachers were Pila Wilson, Larry Kimura, and Sarah Nākoa. One day Pila invited us to go hiking to look for ‘awa (kava) in an inaccessible hanging valley in Ka‘a‘awa. He also invited me to parties with Ni‘ihau, Māori, and Rapa Nui. Although he was my only instructor of Hawaiian who was not genealogically Hawaiian, he had a deep affection for the language and went on to develop a system of teaching the language for which we were guinea pigs of sort. Larry or Kauanoe was someone I greatly admired for his work on “Ka Leo Hawai‘i,” a radio program with native speakers of Hawaiian that we had to listen to and

later transcribe for class. Mrs. Nākoa, however, the *mānaleo* (native speaker) was my favorite, probably because she was my first kupuna and teacher. Although our work primarily involved translating Hale‘ole’s “Lā‘ieikawai,” she brought incredible experiences to our reading and an incredible passion for research.

I eventually graduated from the University of Hawai‘i at Mānoa’s College of Education with a bachelor’s degree in education (B.Ed.) in 1980 with an emphasis in early childhood education. One of my mentors at Kamehameha, Allen Bailey, had given me a scholarship to pursue early childhood education, so I did so and have been an advocate for early learning since. I had a great early childhood education program advisor, Stephanie Feeney. My student-teaching advisor was Dorothy Hazama. She really supported and encouraged my Hawaiian study, my teaching of all things Hawaiian, and in many ways, my identity as a young Hawaiian. I appeared in Hazama and Komeiji (1986) as an example of the new generation of multi-racial people in Hawai‘i of Japanese descent. My mother is *sansei* (third generation).

Finding leo as a student of hula.

Shortly after graduating from Kamehameha and while attending college, I wanted to participate in either hula or canoe paddling, based in large part because of the advice given to me by my cousin, Palani Kahala. I couldn’t find a canoe club, which would have been better in helping to keep the weight off, but I did find an ad in the newspaper for Ka Pā Hula Hawai‘i (Ka Pā), a *hālau* (academy) known for bringing male hula to the forefront in the 1970s. My first encounter took me to Waiāhole Poi Factory where I met the charismatic Kaha‘i Topolinski, kumu hula and founder of Ka Pā. I was instructed to stand in a small parking lot near the road with other new students. Tour buses whizzed past and gawked at us as the leader chanted an *oli kāhea* (admittance chant) that would enable us to gain entry into the school of learning.

Upon the password chant being given by Kaha‘i, we danced into an L-shaped room. It was an interesting initiation into the world of hula. Later, classes moved several times, first to Kaha‘i’s home in Waimalu, then to St. Louis High School, and finally to the school’s current home in Nu‘uanu. During this time (approximately 20 years) with Kaha‘i, I honed my skills in dance and in chanting. Chanting, however, was one of my

primary interests and passions, especially because the chanted text dealt with all aspects of Hawaiian language and literacy.

Kaha'i encouraged and allowed me to take classes from other experts, so I was fortunate and happy to learn from many kumu, including Kalena Silva, who taught at Hālau Mele at St. Louis High School in 1977; Edith McKenzie, who taught for the State Council on Hawaiian Heritage in 1978 and 1979; Edith Kanaka'ole, who taught a series of summer workshops at Chaminade College; and Ka'upena Wong, who taught me in 1975 several chants for the launching of the Hōkūle'a, a double-hulled canoe built to demonstrate that our Hawaiian ancestors were able to navigate their way to Hawai'i. These masters helped me to develop my *leo oli* (chanting voice).

When I graduated from the Kamehameha Schools in 1975, the war in Vietnam was coming to a close, and the social justice and activism of the Civil Rights Movement was still manifesting itself in Hawai'i, giving rise to what was called the "Hawaiian Renaissance." Hawaiians were not only exercising their voices on important social and political issues but also reclaiming, reviving, and reinvigorating the Hawaiian voice through music and the study of the Hawaiian language. For me, this period would mark the blending of my *leo Hawai'i* or Hawaiian language voice with the teacher voice I began developing under Ho'oulu Cambra and Sarah Keahi and during my high school community service project of teaching hula in public schools. This *leo kumu* will become important in helping and nurturing other *leo*.

My Teacher Voice and Ko'u Leo Kumu.

My teacher voice in an English medium school.

My first teaching job was in an urban school that was named for a school for Hawaiian *ali'i* (chiefs). Royal Elementary School became a public school with a high transiency rate and a myriad of problems that comes with it. The teacher I replaced had retired at mid-year due to the stress of the job. A boy had thrown a chair at her, and another had brought a knife to school and threatened her. The principal wanted a strong, male role model in the class to help stabilize it. Had I known about the chair-throwing and knife-wielding, I would not have taken the job.

In addition to the emotional problems some students had, there were significant academic challenges. My fourth graders' reading levels ranged from non-readers to a

single fourth grader who could read on grade level. I had six reading groups and six basal texts to work from. Needless to say, college did not prepare me for this kind of segmented teaching. Fortunately for me, I was recruited the following year to teach at my alma mater, The Kamehameha Schools, which gave me a wonderful opportunity for me to work with Hawaiian children and return the generosity that Princess Pauahi, benefactress of the school, extended to me as an alumnus of the school she founded.

My teacher voice in an English medium school for Hawaiians.

At Kamehameha, teachers and students had no lack. It was a dream job for any teacher. All the school supplies were provided by the school. In addition, I had preparatory time as well as time for lesson planning when my students were at art, music, library, or math lab. I had all my photo copying, transportation and field trip meal services, and aide services provided for. One day, however, a hurricane ripped off the heavy glass doors of my classroom and I needed to report and check for further damages. A friend who was helping me asked why I was teaching at Kamehameha and not in the Hawaiian community (he pointed to Wai‘anae in the far distance). His words would prove to be prophetic. The very next school year, I made an unfortunate decision to go into business and left teaching for a few months. I did so poorly in business that I lost my car and condominium. I soon returned to teaching. Guess where? Yes, in the same district my friend had prophetically pointed to after the hurricane.

Ko‘u leo kumu: My Hawaiian teaching voice.

There in the Leeward District of O‘ahu, I served as a Hawaiian Studies resource teacher for several years. The Leeward District of the State of Hawai‘i Department of Education was comprised of Pearl City, Waipahu, ‘Ewa, Nānākuli, and Wai‘anae school complexes. The latter two complexes of the Leeward Coast is an area containing the largest percentage of Native Hawaiians in the state with a Hawaiian homestead in Nānākuli and another in Wai‘anae with another to be built in Lualualei after my tenure. It was and continues to be an economically disadvantaged area with a high percentage of schools having record numbers of Free and Reduced-Cost Lunches provided to their students. Truancy, high school drop-out rates, and teen pregnancy rates are high, and achievement on tests is historically low. Despite these statistics and trends, I enjoyed working in this district because I was able to serve my people. I had actually done my

teaching practicum at Nānāikapono Elementary School and fell in love with the students who would hang on my arms to and from the recess yard. I was also privileged to utilize the knowledge gained from my Hawaiian language and Hawaiian Studies university courses, the very courses I was once discouraged from taking by my high school counselor. In addition, I was also able to meet with and support *kūpuna* (elders), many of whom were native speakers of the language. The native speakers in the Leeward District at the time were Agnes Ai and Mele Manuel from Kaupō, Sarah Kawailima of Nānākuli, and Elizabeth Kauahipaula of Wai‘anae, the one kupuna who would play a significant role in helping me to develop my leo and my *‘ōlelo Hawai‘i* (Hawaiian language). My role as a resource teacher was to enable kupuna to deliver lessons based on their experiences and knowledge of the Hawaiian culture. However, these kupuna enabled me to develop a demeanor and voice that was more *akahai* (sincere) and more *ha‘aha‘a* (humble) and, ultimately, more Hawaiian.

Ko‘u leo ‘ōlelo Hawai‘i: My Hawaiian teaching voice.

A decade later I had the opportunity to teach in the Hawaiian Language Immersion Program. The pilot school, Waiau Elementary School, was in my teaching district in Leeward O‘ahu and I was the only licensed teacher able to converse fluently in Hawaiian at that time. Prior to my entry, my former colleague in the Hawaiian Studies Program, Alohalani Housman, became the first teacher in the program so I was very familiar and excited about joining her and supporting this movement to revitalize our Hawaiian language.

The curriculum, however, was dismal and lacking. There were no Hawaiian language texts created after the 1896 ban on the use of the language in schools. Thus, upon my entry into *Kula Kaiapuni* (Hawaiian language immersion school) in 1989, nearly a century of silencing had taken place in our education system. The effects of colonization were deep, and we faced this head on in the Hawaiian language immersion school and community, determined to revitalize our native voice.

Our biggest problem was filling the curriculum void. Also of concern was the need for authentic learning materials. Villa (2002) wrote about this saying:

A major problem in the teaching of heritage languages, at least in the United States, is identifying and obtaining authentic materials for instructional purposes. Here, the phrase ‘authentic materials’ is defined as original texts, films, and recordings of language usage, among other media, that accurately reflect how a language community employs its heritage tongue, materials that have not been specifically created for instructional purposes. (p. 93)

Thus, in the following discussion on “authentic materials” I refer to the need to restore *leo*—the expressions, beliefs, and even aspirations of the Hawaiian people. Where there was silence and acts of silencing, the act of bringing voice and *leo* back is critical to building sense of authority, and to me, Hawaiian identity and well-being. One way of building this sense of authority is through authentic curriculum as will be discussed below. Another way of building authority is through *leo*.

Voice in Curriculum

In this section, I attempt to describe what an authentic Hawaiian curriculum is and illustrate how voice is strengthened. I begin with a description of what is not authentic, relying principally on the works of Kaomea (2000, 2001) and Bacchilega (2007). I then describe my experiences in developing curriculum as a Hawaiian Studies resource teacher working with *kūpuna* and as a language immersion teacher. Lastly, I propose a framework for constructing a Hawaiian curriculum from a native Hawaiian perspective. Primarily, I rely upon my experience and training in the Hawaiian arts of chant and dance to frame this curriculum through performance (*hō‘ikena*).

Wong (1999) raises concerns about “authenticity” much related to this discussion on curriculum development especially when those developing and creating authentic products are new speakers of Hawaiian (p. 94). This is obviously my case as I am a new speaker of Hawaiian. Although ‘*ōlelo Hawai‘i* is my birthright and mother tongue, it is, indeed my second language. I am aware that any input from me as a second-language learner contributes to the overall character to the language and can be a “corrosive force that contaminates the purity and weakens the integrity of the language, perhaps even

rendering it unworthy of revitalization efforts” (Wong, 1999, p. 95). Therefore, in this discussion, authentic materials refer to works rendered by native speakers and writers of the Hawaiian language. The curricula that I developed and will discuss are based on these types of material and sources.

Contesting the voice of colonialism.

Kaomea (2000), in “A Curriculum of Aloha? Colonialism and Tourism in Hawai‘i’s Elementary Textbooks,” analyzed several textbooks of Hawaiian studies and found that, “The stereotypical depictions of Native Hawaiians that we find in the school textbooks and curricula continue to serve the economic interests of the state by fulfilling its need for cheap labor, docile Hawaiians, and willing and able ‘ambassadors of aloha’” (p. 324). Her paper provided a detailed and stinging critique of the “curriculum of aloha.” What she wrote was also an affirmation of what I had experienced as a fourth grader in a public school and as young Hawaiian searching for an identity.

Kaomea (2000) applied Foucault’s discourse genealogy (1970, 1972, 1979), a literary analysis technique in which “one reads a text alongside an unlikely partner from another genre in order to identify historical discourses¹” (p. 322). She also employed Greenblatt’s (1989) technique of reading a text alongside an unlikely partner in order to identify historical discourses that the two texts had in common (p. 322). She applied these techniques and compared Bauer’s (1989) *Hawai‘i the Aloha State*, a state-approved textbook, with a tour guide also titled *Hawai‘i the Aloha State*. What she found was that “Hawaiians that are represented in these Western-authored textbooks are strikingly similar to the exoticized perceptions that were first projected upon our people by early colonial voyagers and have since been perpetuated through Hawai‘i’s visitor industry” (2000, p. 70).

Another one of Kaomea’s very interesting comparison was of photos in textbooks. She contended that they, “like the drugstore postcards, serve as vivid advertisements for our island scenery, our beaches and water sports, and our women or hula girls” (p. 326).

¹ Foucault (1979) juxtaposes the eighteenth-century penitentiary with modern psychiatry.

Bacchilega (2007), in the process of historical documentation of *Legendary Hawai‘i*², also found promotion of the “hula girl” and “destination image” in tourism-related photography and media. As Kaomea puts it, “The metonymic image of the ‘hula girl’ continues to lure them [tourists] into the potential of an exotic and sweet romance” (2001, p. 17). Authenticity contends with myth and stereotype so native Hawaiians like Kaomea have found the need to contest and decolonize mythic Hawai‘i such as by Trask (1999) in her often cited, “‘Lovely hula hands’: Corporate Tourism and the Prostitution of Hawaiian Culture.”

Another interesting comparison was the perpetuation of myth and stereotype in the curriculum through the teaching of the values of hospitality and “aloha.” Kaomea’s analysis of Hawaiian and vocational studies material found that, just as hotel brochures lead us to believe that Hawaiians are giving and entertaining, students educated in those programs also projected that Hawaiians were “kind and good mannered people” and the “nicest people [they] know” (2000, p. 335):

In contrast to what is being taught in our schools, I argue that this Hawaiian hospitality and aloha spirit which was first recorded by Cook and his men over two hundred years ago, and which has since become common knowledge among tourists and locals alike, is not necessarily a natural inclination of our people, but instead is something that has been taught to us over and over again, beginning with a first lesson from Captain James Cook (Kaomea, 2000, p. 337).

Kaomea further contended that an unlikely perpetuator of this tourism-oriented culture of hospitality was the *kupuna* (elder) working in the Kupuna Component of the State of Hawai‘i’s Hawaiian Studies Program. Kaomea analyzed the state’s Hawaiian studies curricular guide (Pescaia, 1981) alongside a tour guide manual to demonstrate how the tourist industry and the Hawaiian studies curriculum are “inextricably linked in the reproduction of hospitable natives and willing and able ambassadors of the aloha spirit” (Kaomea, 2000, p. 338). Her analysis intrigued me because of my own experience

² Bacchilega (2007) , p. 5, defines *legendary Hawai‘i* as “a space constructed for non-Hawaiians (and especially Americans) to experience, via Hawaiian legends, a Hawai‘i that is exotic and primitive while beautiful and welcoming.”

as a fourth-grader conducting research armed only with tour-industry brochures decades ago as well as my experience as a Hawaiian Studies resource teacher in the Leeward District of O‘ahu.

Some parts of Kaomea’s article caused me to pause. For example, she said this of the kūpuna in the Hawaiian Studies program:

Within the factory system of our schools, these kupuna are low-paid laborers whose ultimate function is to reproduce the existing capitalist relations of exploitation. Limited to a restrictive performance-based curriculum and substandard, alienating working conditions, these retired Hawaiian tour guides, musicians, and Waikīkī performers unwittingly ensure the survival of Hawai‘i’s visitor industry as they participate in their own reproduction through the interpellation of a new generation of compliant Hawaiian tourist industry workers (2001, p. 80).

Of the 37 kūpuna that I worked with in my capacity as a resource teacher in the Leeward District’s Hawaiian Studies Program, none had worked in the tourism industry. Furthermore, I cannot concur with her view that the kupuna were “ambassadors of aloha” and that the performance-based curriculum was substandard and restrictive. I’ve found in my own research as well as through my experience as a performer-educator that performance, indeed, played a critical role in the perpetuation of culture.

Although I was already teaching in a Hawaiian Language Immersion School at the publication of Kaomea’s study, many of the kūpuna that I still had contact with were deeply hurt by this moniker, and even, in an ironic way, this stereotype. Moreover, having participated in creation of the Hawaiian Studies program guides I found that they did contain deep Hawaiian cultural knowledge. Here are some examples of the program guides:

- Grade K-1 – Hawaiian dye names: ‘ōlena, noni, kou, kukui, ma‘o, ‘uki‘uki, ko‘oko‘olau (OIS RS 83-5454, 1983, p. 128);
- Grade 2 - A chart showing the Ko‘olau, Moa‘e, Malanai, Kona, and Ho‘olua winds and the directions they blow from. (Hawai‘i DOE, 1983, p. 35);

- Grade 3- Names of *kai lawai* ‘a, fishing grounds: Kalae, Miloli‘i, Hanalei, Nāwiliwili, Kaumalapa‘u, Mānele, Hāna, Lāahaina, Ma‘alaea, Hālawā, Kaunakakai. (Hawai‘i DOE, 1985, p. 156);
- Grade 4 – A diagram showing the parts of a Hawaiian *hale* (house): kua‘iole, kaupoku, halakea, o‘a, pouhana, poukihi, poukukana, ahopueo (Hawai‘i DOE, 1983, p. 269); and
- Grade 6 – The birth chant of Kauikeaouli; the *mo‘okū‘auhau* (genealogy) of Kamehameha; the *mo‘okū‘auhau* of Kalākaua; and the *mo‘okū‘auhau* of Kawānanakoa (Hawai‘i DOE, pp. 61-65).

The depth of knowledge contained in these curricula contests the curriculum of hospitality and the label, “ambassadors of aloha.”

Despite my disagreement with Kaomea’s analysis of the state’s Hawaiian Studies curriculum and the kupuna, her analytical analysis of those materials is quite useful in analyzing and appreciating the authenticity of curriculum. First, her method and analysis identifies acts of silencing. Second, it forces one to look more closely at silence. As an example, Kaomea utilized Macherey’s (1978) literary analysis technique of focusing on the *non dit* (the unsaid). Included in this technique is what Tobin (2000) referred to as what cannot be said because it is too horrifying to say so. While current fourth-grade texts mention Captain Cook’s death by the hands of native Hawaiians, they do not mention that one of Cook’s men killed a Hawaiian chief in Waimea or that his men disobeyed his orders not to interact with the native women, thereby spreading venereal disease throughout the islands and the horrific decimation of families as a result.

In addition, while current Hawai‘i State Department of Education texts like *Modern History of Hawai‘i* (1983) discuss the overthrow of the Hawaiian government by American businessmen with the assistance of American troops, they do not discuss the illegality and immorality of their actions. Texts are also silent on the overwhelming Hawaiian opposition to annexation of Hawai‘i to the United States and brought to light by Silva (2004). Also silent are the references indicating that an act of Congress or treaty annexing Hawai‘i to the U.S. existed at all as later revealed by Sai (2008).

Kaomea’s focus on *non dit* encourages educators and curriculum developers to look to what is not said, written, or taught especially in the case of Hawaiians who have

been silenced in schools and government for decades. Macherey (1978) wrote, “What is important in a work is what it does not say (p. 87).” This powerful method of literary analysis brings “voice” back into what was once silenced. By extension, the same kind of analysis of Hawaiian texts brings *leo* back into what was once outlawed.

Privileging the voice of kūpuna.

As one of two resource teachers in the Leeward District Hawaiian Studies Program for many years, I had an intimate knowledge of the program, especially what was called the Kupuna component. I worked with kūpuna as their resource teacher and as their guide in and through the complex education system. I worked with them to bring their life experiences in the culture into the classroom. Some felt the need or were pressured to perform as classroom teachers, but their effectiveness was always in sharing their life experience because it was the basis of the curriculum. Our mutual understanding was that they enter the schools as the best and probably only role model of Hawaiian values, culture, history, and language the children would have. They were more than “ambassadors of aloha” although it was their aloha that compelled the children to call out to them in excited voices, “Kupuna! Kupuna!” In my estimation, they were more like ambassadors of the Hawaiian culture, history, and language.

The kupuna delivered an authentic curriculum because the curriculum was based on their experiences growing up within the culture. An authentic curriculum is based on life and the experiences of living. An example of this authentic curriculum in action was when Agnes Ai, who served as a kupuna at Wai‘anae and Mā‘ili Elementary Schools, talked to the children about *‘uala* (sweet potato), one of the food plants brought by early Hawaiians and the food plant of her native land of Kaupō on Maui. She told the children that her father would plant according to the moon and that it was best to plant when the moon was full. If the moon was shaped like a sliver, especially on ‘Ole and Lā‘au nights, the potato would become skinny. “*Kamali‘i* (her affectionate name for her students)! Would you like to eat a skinny potato?” she asked. “No,” they answered with glee. She also told them how her father taught her to build up a mound of dirt called *pu‘e* to insert the *pulapula* (root starters) into it. When the vine got long they would need to go and wind them in a spiral on the *pu‘e*. “Always this way” (showing a clockwise movement), she told the children who attended to her every word, a task not easy in a school located

near a chicken farm and in one of the hottest districts on the island. If Ai was an ambassador of aloha, she was more of an ambassador for *aloha 'āina* (love for the land).

Another kupuna who was a pioneer in the Leeward District Hawaiian Studies program was Elizabeth Kauahipaua. Fortunately, she became our kupuna and *mānaleo* (native speaker) at Waiau Elementary School for our Hawaiian Language Immersion Program. One of her favorite lessons was to show the children how to wipe and clean the dried leaves of the *pū hala* (pandanus tree), which we used for plaiting. The next lesson was to show them how to remove the thorns then strip the leaves into *koana* or strips for weaving. The final lesson was to weave the strips into a bracelet. She first demonstrated the weaving process then had the children begin weaving along with her step by step. I was always amazed on how she could get young children to have a sense of mastery and completion through these cultural activities and practices. Kauahipaua not only taught culture, she also imparted cultural dispositions and ways to learn in our culture.

Sadly, resource teacher positions like mine in the state's Hawaiian Studies Program were eliminated after I left in 1990, further hindering the implementation of the program. However, despite resistance from some school administrators, the kūpuna continued to take this rich curriculum into the classroom and did so as ambassadors and advocates of the culture. As a result of their persistence and advocacy, the program remained viable as long as these elders persevered.

Silencing leo.

Shortly after the after the illegal overthrow of the Hawaiian kingdom by American businessmen aided by U.S. military troops acting without governmental approval, the Hawaiian voice, *ka leo o ka lāhui*, was censored. The Hawaiian language newspapers were censored. Voices of dissent were silenced. As Silva (2004) found, “With the exception of *Ka Hoku o ka Pakipika* all of the Hawaiian language newspapers in this period were related to or controlled by U.S. missionaries” (p. 82). This control facilitated censorship of the press, especially *Ka Hoku o ka Pakipika*. In addition, citizens of the legitimate and sovereign Hawaiian Kingdom who had the right to vote were required by the new “democracy” to read and write in English, then a foreign language, in order to vote. This requirement quickly disenfranchised the majority of native Hawaiians as well as the many non-English-speaking immigrants who came to Hawai‘i to

work on the sugar plantations such as the Chinese and Japanese laborer. Three years later, in 1896, the voice of the Hawaiian language was silenced in the schools with a policy that banned the use and instruction of the native language in schools.

Applying Macherey's notion of *non dit* to the events of the overthrow, one finds that curriculum paid no attention to the historical events of this critical time. Moreover, nothing was said of the 1896 policy banning the use of the Hawaiian language in instruction and, in effect, the day-to-day conversations of Hawaiian-speaking students. In a single day, children who grew up and were nurtured in their mother tongue were unexpectedly disciplined and humiliated the next day for even uttering a single word like "aloha" to one another. It was sudden. No one told Hawaiian parents and their children until they arrived at school. My grandfather, Eli Kāheakūani Akana of Anahola, Kaua'i, suffered this fate while attending Hilo Boarding School. He was forced to wear a dunce cap and stand in the corner for speaking Hawaiian. Interesting, too, was that although he spoke Chinese, he was not punished for speaking it. He and hundreds of Hawaiian boys and girls were singled out and punished for speaking their native language.

Elizabeth Kauahipaula, my *hānai* (adopted) grandmother, told me that if they were caught speaking Hawaiian, they were forced to form a "flower" with their fingers which would be whacked with a ruler (Akana, 1999). "Oooh, 'eha (sore, pain)," she said with a grimaced face reliving a painful moment from her past. However, to Kauahipaula the most painful was her having to stand in a corner and face the class as punishment. It was more 'eha (painful) because she had done nothing wrong and because her friends were silent to the injustice. Her Hawaiian teachers were silent to this injustice. Silencing *leo* was the primary objective, and it worked with subsequent generations like my father's, depriving them of the privilege and joy of *leo* in their lives.

In addition, Hawaiian girls and boys were often forced to take English names, and, essentially, Western identities. Beloved and charismatic elder, Lilia Hale, told a story of how her teacher forced her to take the name "Lydia" over her given Hawaiian name (Akana, 2002). These acts constituted a form of linguistic colonization that eventually diminished the language, bringing it to the brink of extinction. Except for the efforts of families like Kauahipaula's and Hale's, who kept the language alive in their homes, the language would have certainly died. Nevertheless, this 1896 prohibition on

the use of Hawaiian language as a medium of instruction in schools led to the demise of the Hawaiian language, literacy, and cultural identity (Benham and Heck, 1998; Kame‘eleihiwa, 1992; Silva, 2004; Warner, 1999; and Wong, 2006).

Revitalizing leo.

In the 1970s, young Hawaiian scholars wanting to revitalize the language and bring voice back to the silenced established Hawaiian language medium preschools or *Pūnana Leo* (language nests). Native speakers were enlisted to serve as language models and curriculum moved towards speaking, writing, and teaching in what was once familiar and vital—*‘ōlelo Hawai‘i* (Hawaiian language). Families were also expected to learn the language and, as a result, leo grew (Kawai‘ae‘a, Housman, & Alencastre, 2007; Warner, 1998).

After the first cohort of Pūnana Leo children graduated, families wanted them to continue their education in public school. Doing so required two important changes in law. First, the 1896 policy had to be repealed. It was actually unlawful to teach in Hawaiian in public schools in 1986 when the statutes were revised. Second, the Hawaii State Board of Education needed to approve and establish the program, which it did as a pilot program in 1987 with the support of native Hawaiian members on the Board of Education, Darrow Aiona, Margaret Apo and Frances MacMillen (Kaponu, 1994).

The new program became official after its pilot year and is now known as *Ka Papahana Kaiapuni Hawai‘i* (The Hawaiian Language Immersion Program). This program inspired families to educate their children through the medium of the Hawaiian language and thereby discover leo again, and, without fear of retribution and shame. I would leave the Leeward District Hawaiian Studies Program in 1990, and embark on a new journey of discovering leo. My entry into the Hawaiian Language Immersion Program as a full-fledged teacher begins another study of how language and curriculum contributes to voice and author-authority through language and curriculum developed in that language.

Privileging leo as a Hawaiian language immersion teacher.

One of the first Hawaiian Language Immersion Program schools was Waiau Elementary, located in the Leeward District. It would be called Kula Kaiapuni ‘O Waiau, heretofore referred to as Kula Kaiapuni. The principal, Mrs. Diana Ka‘apana Oshiro, was

one of few Hawaiian principals in the system and the only administrator on O‘ahu willing to shepherd the pilot project. The other school was at Keaukaha Elementary School on the island of Hawai‘i.

On the first day of school at Waiau, I walked into a classroom with no desk and chairs. There was also no curriculum. I knew that curriculum, or the lack thereof, would be a major stumbling block because two years before my start at Waiau, I had assisted pioneer Kula Kaiapuni teacher, Alohalani Housman, in developing her Hawaiian language arts reading materials. These materials were primarily translations of English texts, cut and pasted into the book or basal. I also walked into a program that I had no professional and practical experience as an immersion teacher. This was the first time for all us teaching all day through the medium of Hawaiian.

However, the full brunt and gravity of creating curriculum in a vacuum did not hit me until I took full charge of an immersion classroom. I would arrive at 7:00 in the morning and leave at 11:00 at night, every day, seven days a week, every week of the year. It was very stressful translating a book, typing up the text, cutting and pasting it into the book, then laminating that book in plastic for long-term use. I followed the same process for the math text. Even with parental help, which was phenomenal, curriculum development of this nature was stressful.

Finally, I had a kind of breakdown due to this compiling stress of working round the clock. In the midst of that heavy cloud of frustration and stress, I remembered somehow to *pule* (pray), and in my attempt to calm myself, I heard the *leo oli* (chanting voice) of an esteemed Hawaiian elder, Edith Kanaka‘ole. She chanted back to me a chant I had learned from her many years prior to her passing:

E hō mai ka ‘ike mai luna mai ē	Send knowledge from above
I nā mea huna no‘eau o nā mele ē	Of the wise, hidden things within the songs and chants
E hō mai, e hō mai, e hō mai ē.	Grant, grant, grant unto us.

(E. Kanaka‘ole, personal communication and instruction, July 1978)
(K. Akana. translation)

I chanted with her softly. Immediately, I was calmed by seeing this gentle yet powerful elder in my prayer state. Minutes later, I locked my classroom and departed for home. As I was driving home, the words and melody of a song came to me. It came to me simultaneously, which had never happened before. When I arrived home, I wrote the words and recorded the melody on a cassette tape recorder. Note the direct influence of Edith Kanaka‘ole’s chant in the underlined phrases in the *hui* (chorus):

“Ho‘olono,” by Kalani Akana

Ho‘olono, ho‘olohe i nā leo o nā kūpuna ē	Sense, listen to the voices of the elders
He leo ‘olu‘olu a he leo akahai nō ho‘i e	It is a gentle and sincere voice
Ke paipai nei (ia) ia‘u e ho‘omau i ke a‘o ‘ana mai	(It) is encouraging me to continue learning
I ka ‘ōlelo Hawai‘i o ko‘u mau kūpuna aloha ē.	The Hawaiian language of my beloved ancestors.
Hui:	Chorus:
<u>E hō mai i ka ‘ike</u> me ka na‘auao	Grant knowledge and wisdom
E ho‘omau a noke	To continue and persevere in
i ka hana i mua o‘u ē	doing the work before me
E hō mai i ke aloha	Grant love
me ka ho‘omanawanui	And patience
E ho‘okō i nā moemoeā	To fulfill the dreams
o ko‘u lāhui ē	of my people.

The next morning, feeling revitalized and energized, I wrote this inspired composition, “Ho‘olono,” onto a large chart paper so that my language-hungry students could read it as our literature lesson for the day. We sang this inspired composition routinely at the beginning and ending of each day. Needless to say, the children loved this new, literary experience and would sing with gusto and enthusiasm without prompting or encouragement.

As a result of their enthusiasm, I added other *mele oli* (chant text) and *mele hula* (dance text) to my curriculum, mostly traditional *mele* (song) from a repertoire of mele

taught to me over the years as a student of Hawaiian chant and dance. They chanted with straight backs and round, smiling faces. Leo was strong.

We learned the mele oli, “*Kūnihi ka mauna*,” a chant used in hula to ask permission to enter the classroom. The humble and sincere attitude with which Kūnihi must be chanted is evidence that demonstrates that Hawaiians valued learning and education contrary to the myth that Hawaiian achievement or lack thereof in schools was linked to a cultural disposition and propensity. In any case, after a week, my students were ready for more authentic texts and I composed a *mele kāhea*, using ‘*ai hō ‘ikenā ‘ōlelo*³ or oral performance keys⁴, some of which were included in Table 1. I credit this new found skill in *haku mele* (composition) to “E hō mai ka ‘ike” and the inspiration of Edith Kanaka‘ole who did not hold back the voice and chanted back to me in response to my plea for help.

As the months passed, the use of authentic material composed by native Hawaiians of the past, as well as the present, transformed my curriculum. First and foremost, the curriculum privileged the Hawaiian language and in doing so nurtured a sense of pride and a renewed and corporate Hawaiian identity. Second, it steered me away from the artificial “cut-and-paste” curriculum. Third, I did not have to stay at school from 7:00 a.m. to 11:00 p.m. anymore.

I noticed several things when the material for learning was authentic and written from a native worldview and perspective. I discovered that the language of *oli* and *mele* embedded itself naturally into the students’ speech. As an example of this, I wrote a song for our school to foster a sense of place and a sense of identity. I purposely included a modifier, “*le ‘a*” which means “clearly” (something I had just learned at a Hawaiian language teacher in-service workshop). As *inoa* (names) are important keys to performance, and because inoa engender a true sense of place and identity, the *inoa wahi pana* (storied place-names) of the district where the school was located were incorporated into the following text:

³ ‘*Ai hō ‘ikenā ‘ōlelo* is a term in Akana (2012) for oral performance key. ‘*Ai* is a traditional term for a dance style or type (Puku‘i & Elbert, 1986, p. 9).

⁴ Performance keys alert the audience that they are observing a specific oral tradition (see Bauman, 1977).

“Mele no Waiau” by Kalani Akana

‘O Waiau ke ahupua‘a, ‘o ‘Ewa	Waiau is the land division, ‘Ewa is
ka moku, ‘o ke awa ‘o Pu‘uloa,	the district, the harbor is Pu‘uloa,
‘o ke kai ‘o Polea.	the sea is Polea.
Ke kia‘i nei ‘o Ka‘ala me	Mount Ka‘ala and Mount Kapu
Maunakapu ia‘u	watch over me
<u>He lani ko luna, He honua ko lalo</u>	Heaven above, earth below
Maopopo le‘a he Hawai‘i nō au.	I know clearly that I am a
	Hawaiian.

I appropriated the lines, “*He lani ko luna, he honua ko lalo*” as underlined above from another chant I had learned at a teaching retreat. We teachers were fortunate to have our own leo nurtured and enhanced by attending these professional development retreats and classes. Later in my research, I found that this traditional proverb originated in the prophecy of Lonohalemoa (underlined below), in which he warned Kamehameha not to venture war against Kaua‘i. Lonohalemoa said:

Mai hele oe i ko huakai, e noho no kaua i Hawai‘i nei, he ai no ko uka he ia no hoi ko kai, he lani no iluna, he honua no hoi ilalo, a o Hawai‘i no nei noho iho.

Don’t go on your trip but let us stay in Hawai‘i as there is food in the uplands and food in the sea, the heaven is above and the earth below and on Hawai‘i we should remain.

(Kamakau, Ka moolelo o Kamehameha I, *Ka Nupepa Kuokoa*, Iulai 20, 1867).

I was inspired by its meaning and message that no matter where we are located, as long as we recognize the sky above and the earth below, whether in Hawai‘i or elsewhere in the world, we affirm our identity as Hawaiians. Soon after I taught the song, now part of our morning literacy ritual, I would hear “Maopopo?” “Maopopo le‘a!” in the conversation of my students. In addition, when students were asked to deliver welcoming speeches, they incorporated this wise saying, “He lani ko luna, he honua ko lalo” to emphasize and punctuate their reason for being educated in the program and essentially to reaffirm their identity as Hawaiians. Whenever you can achieve this kind of natural

language use in a program aimed at revitalizing a once severely handicapped language, it is cause for celebration.

In discovering this new *leo*, a *leo* I used every day, I found that my role as a Hawaiian language immersion teacher was more than just to revitalize my native language. I found that I was part of a greater cause and greater mission—to restore the literary achievements and accomplishments of the *kūpuna*, and inevitably the proud heritage and identity of my people, as caretakers of great knowledge and wisdom. I was not alone in this feeling and believe that many other Kula Kaiapuni teachers felt the same way (see Yamauchi, Ceppi, & Smith, 2000). As one of the 37 Kula Kaiapuni teachers interviewed by Yamauchi, I saw Kula Kaiapuni as a model of school reform for Native Hawaiians and expressed that we saw ourselves as part of an *‘ohana*, a collective family and learning community of teachers, parents, grandparents, and children working and learning together. This belief contrasted sharply with the school of Kauahipaula’s day which was hostile and punitive to Hawaiian language speaking children. It contrasted with the school of my day and my degrading experience with Mrs. M., the teacher who attempted to silence my voice and aspirations saying, “You can’t be a doctor, Keith. Hawaiians don’t go to college.”

Authentic texts and performance curriculum.

Authentic texts such as *mele hula* and *mele oli* served as the mainstay of my reading curriculum. Authentic text is defined here as any text written or orally performed and taught by native speakers of Hawaiian. Thus, performed, these authentic texts promoted and developed oral fluency. Performed, authentic texts also served as assessments.

Besides the *mele* described above, another important, authentic text was *mo‘olelo*. In Hawaiian, “*mo‘olelo*” can mean “story” and “history.” Bacchilega (2007) stated that, “*Mo‘olelo* most basically is a story, or a sequence of stories, but its social and artistic protocols signal the workings of Hawaiian epistemology and connect it with history” (p. 7). Bacchilega’s work is important in demonstrating how authentic texts, such as Emma Naku‘ina’s, were obscured and replaced by the tradition of legends and myths of Western authors and by others who fabricated “legendary Hawai‘i.”

The primary archive of mo‘olelo can be found in Hawaiian language newspapers, which Nogelmeier (2003) commented on in detail. Other Hawaiian scholars have studied and written about great epics from these newspapers. Some examples are Ho‘omanawanui (2007) and her study of the various versions of “Hi‘iakaikapoliopole”; Kimura’s (2002) analysis of language structure and use in “Hiiakaikapoliopole”; Kame‘eleihiwa’s (1996) study of “Kamapua‘a”; and Ferreira’s (2002) study of “Kawelo.” Included in this archive are those who made Hawaiian language mo‘olelo accessible to English speakers through their translations such as Mo‘okini’s (1978) translation of Kahiolo’s “Kamapua‘a,” Frazier’s (2000) translation of Desha’s (2000) “Kekūhaupi‘o,” Beckwith’s (1917) translation of Hale‘ole’s “Lā‘ieikawai,” and Nogelmeier’s (2007) translation of Ho‘oulumāhie’s “Ka moolelo o Hiiakaikapoliopole.”

How was this impressive archive of authentic material made accessible to elementary school students? In an effort to provide authentic reading material for Kula Kaiapuni, several of these mo‘olelo were gathered from Hawaiian language newspapers, retold, retyped, and compiled by Hawaiian language professors at the University of Hawai‘i at Hilo. The resulting text was *Ke Kumu ‘Ulu*. It was a plain text compilation and without illustration. Some have criticized it for being so “boring,” but as I found with “Ho‘olono,” the text could be brought to life by the students through *hō‘ikena* (performance).

One story from *Ke Kumu ‘Ulu* was “Ka Hopena o ka Pī,” which we transformed into a performance. This mo‘olelo told of the gods Kāne and Kanaloa who, while traveling around the island opening springs and wells, were ignored by a wealthy couple. Because it was customary to *kāhea* (call out) to travelers, the wealthy couple breached protocol by ignoring the strangers. Soon after, the gods passed the home of a poor couple who had little to eat and barely potable water to drink. Despite their poverty, the couple invited the men to eat and rest. To reward the poor couple for their hospitality, the gods awoke early and turned the undrinkable water into potable, sweet water and the cool and sweet spring water of the wealthy couple bitter. This was the result of stinginess—*ka hopena o ka pī*.

The performance of “Ka Hopena o ka Pī” taught not only the value of hospitality but also the language and appropriate behavior associated with it. First, the students learned a classical chant of welcome, “Onaona i ka Hala.” Second, they learned the appropriate words for welcoming a guest, such as in this short speech:

Mai, hele mai i loko o ko mākou	Welcome, enter into our
hale ōpū weuweu.	humble dwelling.
Nou ia!	It is for you!
E kipa mai, e komo mai ma loko	You are invited, enter within
Nou ka hale, e komo mai	The house is yours, enter
Nāu ka mea ‘ai, ka huēwai, a me	For you is the food, the drinking
ka moena.	gourd, the sleeping mat.
He mai!	Welcome!

In delivering the speech, students learned the appropriate *ki‘ina* (behaviors) for speaking, e.g. *mai huli kua* (do not face one’s back) or *mai kaupe‘a* (do not cross the hands in front or to the back). Students also learned the appropriate style of chant to deliver the welcome and developed their own *leo ‘i‘i*, the raspy and guttural voice much liked by our elders.

When they learned “Onaona i ka Hala,” they also learned the ‘*ai* or performance keys and devices important to Hawaiian oral performance. Some of the ‘*ai* are underlined and identified in parentheses below:

Mele kāhea, mele ho‘okipa

Onaona i ka hala me ka lehua (kaona or figurative language)

He hale lehua no ia na ka noe (pīna‘i or repetition)

‘O ka‘u nō ia e ‘ano‘i nei, e li‘a nei ho‘i

‘O ka hiki mai, a hiki mai nō ‘oe

A hiki pū nō me ke aloha. (pīna‘i or repetition)

He mai. (ha‘ilula kūikawā or special formula)

(K. Silva, personal communication and instruction, March 15, 1977)

At the end of the re-enactment of “Ka Hopena a ka Pī,” the students stood to chant “Ka Wai a Kāne” in the *kepakepa* style, described as a “conversational chant, fast rhythmic chant or recitation, with every syllable clearly pronounced and without

prolonged vowels and not requiring too much breath” (Puku‘i & Elbert, 1986, p. 145). In addition, this chant complemented the students’ scientific study of the water cycle—evaporation, condensation, and precipitation. The forms of the god Kāne were found in all these processes. Thus, both sciences, Western and Hawaiian, were privileged and taught. However, it was more important to privilege the Hawaiian science as there was, indeed, a Hawaiian way of looking at the phenomena of nature. Here is the chant that my second-graders memorized and performed:

Mele, Ka Wai a Kāne

He ui, he nīnau	A query, a question,
E ui aku ana au iā ‘oe,	I am inquiring thusly of you
Aia i hea ka Wai a Kāne?	Where is the water of Kāne?
Aia i ka hikina a ka Lā,	At the Sun’s east
Puka i Ha‘eha‘e,	Coming forth at Ha‘eha‘e
Aia i laila ka Wai a Kane.	That is where the water of Kāne is.
E ui aku ana au iā ‘oe,	I am inquiring thusly of you
Aia i hea ka Wai a Kāne?	Where is the water of Kāne?
Aia i kaulana a ka lā	It is there where the sun rests
I ka pae ‘ōpua i ke kai,	Upon the cloud banks at sea
Ea mai ana ma Nihoa,	Arising at Nihoa
Ma ka mole mai o Lehua;	At the base of Lehua
Aia i laila ka Wai a Kāne.	That is where is the water of Kane is.
E ui aku ana au iā ‘oe,	I am inquiring thusly of you
Aia i hea ka Wai a Kāne?	Where is the water of Kāne?
Aia i ke kuahiwi	Upon the mountain peak,
I ke kualono,	On the ridges
I ke awāwa,	In the valley
i ke kahawai;	In the river
Aia i laila ka Wai a Kāne.	That is where is the water of Kane is.
E ui aku ana au iā ‘oe,	I am inquiring thusly of you
Aia i hea ka Wai a Kāne?	Where is the water of Kāne?
Aia i kai, i ka moana,	In the sea, in the ocean,

I ke kualau, i ke ānuenue	In the sea squall, in the rainbow
I ka pūnohu, i ka ua koko,	In the billowing mist, in the blood- red rain
I ka ‘ālewalewa;	In all forms of floating matter
Aia i laila ka Wai a Kāne.	That is where the water of Kāne is.

(K. Wong, personal communication, July 1980) (K. Akana, translation)

In addition, the students were grouped and encouraged to create a watercolor interpretation of a segment of the chant. This was done to enhance comprehension and appreciation for the mele because understanding the old text was a very intense process. For example, the children needed to investigate concepts like *kualau* (sea squall) or *pūnohu* (billowing mist). What are ‘*ālewalewa*? The students then painted their interpretations of ‘*ālewalewa* or *ua koko* (blood-tinged rain) and other important concepts with the watercolor, an appropriate medium of expression of watery things. The result was a series of beautiful murals that hung in the classroom as visual mnemonics of the chant and later decorated the stage as part of the performance. I arranged the paintings in the classroom from east to west, an order that patterned the order of verses in the mele. This arrangement helped the students strengthen their performance by coupling auditory (the chant) and visual (the art) mnemonics. This method was based on a visualization technique I’ve used to memorize long mele. I also credit my Māori counterparts⁵ at Te Rākaumanga and Te Wharekura o Ruatoki for inspiring me after visits there in the 1990s to bring art and performance into the children’s learning space. The Māori have had decades of experience in revitalizing their native language and we Hawaiians had much to learn from them because our culture, histories, and languages were similar and we shared a common genealogy. Hawaiians and Māori share a similar history of silencing.

Genealogy links Hawaiians to Māori and other Polynesians. Genealogy link Hawaiians to Hawaiians. It stands to reason, then, that *mo‘okū‘auhau* (genealogy) would be another important text to consider in a Hawaiian language immersion curriculum. Kanahale (2011) wrote that, “Mo‘okū‘auhau is a literary introduction to a family lineage. The family line may include humans, elements of nature, sharks, or other forms of life”

⁵ Kura Kaupapa Māori are Māori-language immersion schools where the philosophy and practice reflect Māori cultural values with the aim of revitalizing the Māori language.

(p. 1). Thus, teaching the students chants for Kāne was a way of teaching mo‘okū‘auhau, inculcating a Hawaiian worldview of connectedness, as all water forms are connected to Kāne. Since all Hawaiians have a genealogical connection to Kāne, we all have a personal, familial connection to him and to the domain of water. Water is what connects all peoples. The concept is not difficult for second-graders to grasp. As a result, teaching and learning kuleana (the ethical and moral responsibilities to our environment and each other) were enhanced.

As the children became more facile and familiar with haku mele, they collaborated in composing songs. They looked up alternate meanings and words for key elements representing the god Kāneika‘ōnohiokalā, another manifestation of the god Kāne. Using Puku‘i and Elbert (1986), they found interesting, never-heard-of and never-used words for “hot,” “flash,” “thunderous,” and “sparkling.” Again, I pointed out salient performance features as we composed. The following table identifies some of the oral performance keys that the students learned.

Table 1.

“Mele no Kāne” an original voiced composition.

Hawaiian Text <i>English translation</i>	Oral performance keys (‘Ai Hō‘ikena ‘Ōlelo)⁶
<p>Kāne i ka ‘ōnohi, Kāne i ka ‘ōnohi o ka lā, ka lā welawela, ka lā ‘ena‘ena, ka lā okooko maoli ē</p> <p><i>Kāne in the eye of the sun</i> <i>In the sun, the very hot sun</i> <i>The raging hot sun, the blazing hot sun.</i></p>	<p>Inoa (names), loina pīna‘i (repetition), loina kāko‘o (apposition), ku‘inaiwi kaulua kani /mana‘o (parallelism)</p>
<p>Kāne ka uila, Kāne i ka uila Ka uila ‘ōlapalapa ‘ōwakawaka, ‘ōwekeweke kupaianaha ē</p> <p><i>Kāne the lightning, Kāne the lightning</i> <i>The flashing lightning</i> <i>Flashing and revealing wonders!</i></p>	<p>Inoa (names), loina pīna‘i (repetition), loina kāko‘o (apposition), ku‘inaiwi kaulua kani /mana‘o⁷ (parallelism)</p>
<p>Kāne ka hekili, Kāne ka hekili ‘u‘ina pōhaku a Kāne ē Nāku‘iku‘i, nākolokolo ka hekili ē</p> <p><i>Kāne the thunder, Kāne the thunder</i> <i>Crackling stone of Kāne</i> <i>The thunder peals</i> <i>Rumbling and reverberating thunder</i></p>	<p>Inoa (names), loina pīna‘i (repetition), loina kāko‘o (apposition), ku‘inaiwi kaulua kani (parallelism), ‘ōlelo no‘eau (wise saying)</p>
<p>Kāne ānuenue, Kāne ānuenue Ānuenue ‘ālohilohi Hulalilali, kōlilelile kupaianaha ē</p> <p><i>Kāne of the rainbow, Kāne of the rainbow</i> <i>Sparkling rainbow</i> <i>Glittering and glistening wonderfully</i></p>	<p>Inoa (names), loina pīna‘i (repetition), loina kāko‘o (apposition), ku‘inaiwi kaulua kani /mana‘o (parallelism), ‘ōlelo no‘eau (wise saying)</p>

⁶ Hawaiian oral performance keys are described in Akana (2012)

⁷ See Kimura (2002) for full description and for specific examples of ku‘inaiwi kaulua.

Nurturing Leo Through A Hawaiian Curriculum Framework

I've indicated that mele oli, mele hula, mo'olelo, and mo'okū'auhau were the authentic sources and means of revitalizing leo—Hawaiian literacy and oracy in the immersion classroom. In privileging authentic materials over commercial cut-and-paste literature, the stature of and affection for the language was elevated. In addition, the Hawaiian child was reestablished and nurtured in a friendly educational system ready to prepare him or her to achieve and flourish through and steeped within the native language. Kūpuna such as Kauahipaula, Hale, Kamuela Kumukahi, Eddie Ka'anana and numerous others cried when they first saw and heard the children of the immersion program speaking Hawaiian again. They cried because these children would not be punished as they were and because they realized that their hope to one day see the Hawaiian language flourish again was being fulfilled by these *mo'opuna* (grandchildren) learning in Hawaiian as they once did before the days of punishment for speaking 'ōlelo Hawai'i came. Kupuna Kauahipaula said this of her own teaching in Kula Kaiapuni 'o Waiau: “A'ole au i maopopo e 'ōlelo hou ana au i ka 'ōlelo Hawai'i ma ke kula! 'O ko'u 'i'ini, e laha ka 'ōlelo Hawai'i. *I did not dream I would speak Hawaiian again in school! My desire is that the Hawaiian language flourishes*” (Akana, 2008, p. 6).

Mele oli, mele hula, mo'olelo and mo'okū'auhau serve to validate what is authentic. For example, Kāne as well as Kanaloa are the traditional gods identified in the *Kumulipo*, an important cosmological and genealogical text. Their role as ancestor gods is further validated in the mo'olelo of “Ka Hopena o ka Pī” and in the traditional mele “Ka Wai a Kāne.” Thus, just as triangulation is important in empirical research, mele oli, mele hula, mo'olelo, and mo'okū'auhau quadrangulation is important to indigenous research. This four-square foundation serves to validate spiritual learning, just as spiritual learning validates indigenous research.

Nurturing leo through performance frameworks.

I described some of the Hawaiian oral performance keys of *hō'ikena* (performance) in Table 1. Performance keys or '*ai*', enable the teacher and learner as well as the performer and audience to engage in appreciating, understanding and remembering the leo of each mele oli, mele hula, mo'olelo, and mo'okū'auhau. In the act of *hō'ikena*,

all hearers and learners participate by remembering, rehearsing, and replicating (tell over) the performance thereby engaging in perpetuating leo.

I propose that hō‘ikena, especially its patterning, frame the curriculum. In particular, the hula program provides an excellent patterning frame and protocol for performance. One example of patterning in performance is situated within a Hawaiian graduation ceremony for candidates in a Hawaiian Language Immersion teacher preparation program, Kahuawaiola. A basic patterning for hō‘ikena and protocol is demonstrated in the program reframed in Table 2 “Puka Kahuawaiola,” (Ka Haka ‘Ula o Ke‘elikōlani, 2000).

Table 2.

A Performance Frame: Graduation Program for Kahuawaiola,

Hawaiian Program	English Translation
Pā Ho‘okipa Ho‘okani ‘ia ka pū	Welcoming The conch shells are sounded
Pā Komo Mele Komo - Kūnihi ka Mauna Nā haumāna Kahuawaiola Mele Kāhea – E Hea i Ke Kanaka Nā kumu a me nā kahu a‘oākumu Pule Kupuna Kauahipaula	Entering Permission-to-enter chant By the students of Kahuawaiola Permission chant By the instructors and advisors Prayer
Pā Mo‘okū‘auhau Ha‘i ‘Ōlelo - Kumu Kalani Akana Ha‘i ‘Ōlelo - Kahu A‘oākumu Lehua Veincent Ha‘i ‘Ōlelo – Haumāna Kāne Hiapo Perreira Ha‘i ‘Ōlelo – Haumāna Wahine Liana Hona Mele Hula ‘Ulī‘ulī – A Mauna Kea ‘O Kalani Nā haumāna Kahuawaiola	Remembering genealogy, history Speech by a teacher Kalani Akana Speech by an advisor Lehua Veincent Speech on behalf of male students Hiapo Perreira Speech on behalf of female students Liana Honda Dance with ‘ulī‘ulī – A Mauna Kea ‘O Kalani By the students of Kahuawaiola

Table 2. (continued)

Hawaiian Program	English Translation
Pā Wai Ola Mana‘o Wehe Larry Kimura Oli – Ka Wai A Kāne Ui nā kumu Pane nā haumāna Ho‘okena Kauanoē Kamanā Keiki Kawai‘ae‘a Mana‘o Pani Larry Kimura	Living Waters Section Opening Remarks Larry Kimura Chant – Ka Wai A Kāne The instructors inquire The students reply Instructive Words Kauanoē Kamanā Keiki Kawai‘ae‘a Mana‘o Pani Larry Kimura
Pā Ho‘omoloa Kīhei Lei Kukui Lei Po‘o Mele Ho‘omoloa Kīhei	Investing of Symbols of Graduation Traditional covering Kukui nut lei Head lei Kīhei Tying chant
Pā Ho‘onoa Ha‘i ‘ōlelo – Ka Haka ‘Ula O Ke‘elikōlani Kalena Silva Oli – Ua Ao Hawai‘i Ka po‘e a pau Pule Ho‘oku‘u Larry Kimura Ho‘okani ‘ia ka Pū	Freeing, Releasing Speech – Ka Haka ‘ula O Ke‘elikōlani Kalena Silva Chant – Ua Ao Hawai‘i Everyone Closing Prayer Larry Kimura The Conch Shells Sound

In the Pā Komo section of Table 2, the teacher-candidates first asked permission to come into the staging area with a *mele komo*⁸. This was followed by a *mele kāhea*⁹ by the college instructors, granting permission to the candidates to enter. This protocol can be observed in many Kula Kaiapuni and, in fact, this graduation program and protocol can be seen at Kula Kaiapuni high school graduations today. In preparation for this culminating event, the teacher candidates needed to understand the reasons for this

⁸ Mele komo is the term used in the Kahuawaiola Program. Others call this the mele kāhea.

⁹ Mele kāhea is the term used in this program. Others call this the mele komo.

protocol. They learned the oral performance texts and particular style of delivery so that they could teach their own students when they become teachers. Genealogies were given.

In the Pā Mo‘okū‘auhau section of Table 2, many beautiful speeches were given in Hawaiian. In particular was the very carefully and beautifully crafted speech by Hiapo Pereira, thanking the teachers and exhorting his fellow classmates to carry on the responsibility taken up that day. To *pani* or close that section was a performance of a hula taught to the graduates by Kalena Silva. “A Maunakea ‘o Ka Lanī,” was a chant composed for Queen Emma, who was affectionately known as *ke ali ‘i pi ‘i kuahiwi* (mountain climbing chiefess) because of her fondness for travel and investigating new places, especially mountain lookouts. The symbolic meaning of the chant was linked to the future of prospective teachers as educators who would, like Queen Emma, value investigation, inquiry, and developing their own innate curiosity.

The ceremonial investiture portion or Pā Ho‘omoloa needs special reference here because the items used bear rich and significant meaning. First, the candidates were invested with a *kīhei*, a rectangular cloth and covering used in ‘*uniki* (graduation) ceremonies of hula as a vestment of mastery and accomplishment. For Kahuawaiola, the *kīhei* represented the “...*mākaukau o ka haumāna no ka puka ‘ana aku ma nā pale ha ‘awina i kapa ‘ia ‘o ka Wana‘ao, ke Kahikole, ke Kahikū a me ke Kaulolo*. Readiness of the student to graduate at the levels named Wana‘ao, Kahikole, Kahikū, and Kaulolo¹⁰.” Next, they received a lei kukui made by Kupuna Kauahipaula of Waiau as a “...*hō ‘ailona o ka ‘imi mau i ka na ‘auao me ka hō ‘ola pū i ka ili pono mai o ka ‘ike o ka ‘ike o nā kūpuna*, symbol of ever seeking wisdom along with the revitalization of traditional knowledge of the elders taken up and worn as a lei.” Lastly, they were all crowned with a lei po‘o upon their heads because the head is the seat of the spirit.

The graduation culminated in a performance of a composition by Larry Kimura, “Ua Ao Hawai‘i” followed by a *pule* (prayer). “Ua Ao Hawai‘i” is a prime example of an authentic text by a contemporary Hawaiian composer. It is authentic because the composer employs and inserts exemplary performance keys in the composition and

¹⁰ The levels refer to phases of the program. Wana‘ao (dawn, to dawn); Kahikole (to have lost the red glow of dawn); Kahikū (to rise higher, of the sun, to a stage between *kahikole* and *kau i ka lolo*); and Kaulolo (short for *kau ka lā i ka lolo*, the sun rests on the brains, it is noon. Definitions from Pukui & Elbert (1986).

while, not a native speaker of Hawaiian, demonstrates mastery of the language in his composition. The verbal performances of mele and the bodily performances of dance and investiture integrated perfectly to produce a pleasing experience for both graduate and family in attendance. Through the well-choreographed program, the course instructors as well as family were able to assess and appreciate the learning of the candidates. Thus, hō'ikena was an effective way of integrating mele, mo'okū'auhau, and mo'olelo into a comprehensive and aesthetically pleasing curriculum and performance.

Nurturing leo with traditional knowledge.

Another source of authentic material and learning comes from our living kūpuna. They possess an authentic and living leo. While mele, mo'olelo, and mo'okū'auhau were important and authentic text as sources of deep traditional knowledge, much of the traditional archive contained themes and concepts out of the realm of experience of the children. For example, in the mo'olelo of Māui there is a section that told of his securing the secret of fire, and, in particular, the use of 'aunaki (fire trough) and 'aulima (fire plough) made from the *hau* (hibiscus) plant and used by the mud hens to create fire. This kind of fire making was not familiar to the children as there were more familiar with gas or electric stoves and microwaves.

While this lesson provided an opportunity to teach concepts and traditional practices, the average classroom teacher may not have the materials to reconstruct these experiences in the classroom. In my own classroom, Kupuna Elizabeth Kauahipaula, whom we affectionately called Kupuna, provided the experience to my second-graders. She had assisted her mother with lighting the stove in the outdoor kitchen using a similar fire trough and plough method when matches were not available. Matches, Kupuna Kauahipaula said, were expensive and extravagant.

The children were thoroughly excited and enthused about trying to ignite a fire using the fire trough and plow. Although we generated considerable friction, we were not successful in lighting a fire and ended up using a match. However, the experience was invaluable in helping the students to appreciate the difficulty of fire-making and to understand Māui's quest in the mo'olelo.

To further enhance the children's experience with fire making, Kupuna taught the children how to clean and wrap fish in *tī* (*cordyline terminalis*) leaves for cooking on

coals. She also showed them how to cook sweet potatoes in the ashes from the coal fire. Thus, this traditional cooking curriculum provided another authentic learning experience for the children. They learned the fire cycle in science and the traditional methods of cooking: (a) in the flames; (b) on heated rocks; (c) in an underground oven; (d) on coals; (e) wrapped in leaves and placed on coals; (f) boiled in water heated by coals; (g) food stuffed with heated rocks; and, (h) on ashes. By using all elements and products of fire, the students learned about the Hawaiian use and conservation of energy.

Although we experimented with photovoltaic cells and a solar cooker, the traditional trough and plow generated the most enthusiasm for learning as expressed in their excited leo, “Hō, ka pa‘akikī! Hō, how hard” or “Hō, ka le‘ale‘a! Hō, how fun! This experience exhilarated the children so much that I was afraid that they would take and experiment with this new-found knowledge at home. “Children, remember only to do this with supervision!” I warned.

Kupuna was our mānaleo for our Kula Kaiapuni. She was adopted by her grandparents who she referred to as her parents. This worked in her favor because they insisted that *she* spoke Hawaiian at home when the ban on Hawaiian went into effect. “English is the language of school. Hawaiian is the language of home,” she told me was the rule in her household.

Kupuna Kauahipaula was our authentic source of Hawaiian language and our authentic curriculum developer. I would consult her to affirm whether some curriculum idea was worth pursuing. In our study of Māui, for example, she taught my students how to weave a rope such as the one that Māui’s grandmother might have given him. This rope was later used in a drama that the students produced to demonstrate their knowledge and appreciation of traditional knowledge and the mo‘olelo of Māui.

While mānaleo like Kupuna Kauahipaula were our source of authentic learning and leo, an unfortunate fact in the 1990s was that many who were *kūpuna mānaleo* (native speaker elders) were passing away. It was the passing of these kūpuna that prompted me to become certified as a producer of community television in 1995 with ‘Ōlelo Community Television. This wake-up began my taking on the *kuleana* (responsibility) to record and later digitize the voices of these mānaleo for future

generations so that they could see and hear these mānaleo as they would not have the opportunity to meet and know them.

Using technology to foster leo.

Ni‘ihau is the only island where the Hawaiian language is a living language and used in day to day interactions. Elsewhere in Hawai‘i, mānaleo were the children of the few families who refused to give up speaking Hawaiian in the face of the 1896 ban on speaking Hawaiian in public places. In response to the imminent demise of our kūpuna who formed the majority of native speakers other than those from Ni‘ihau, I launched a project in 1994 to record the voices of mānaleo so that their leo could be remembered. I also thought that we would need to do so to create more authentic material for students in Kula Kaiapuni. In any case, as president of the ‘Ahahui ‘Ōlelo Hawai‘i¹¹ at the time, I proposed that they sponsor the first ‘Aha Mānaleo, a conference of native speakers. The purpose was to rebuild a community of native speakers because we found that many participants had not spoken Hawaiian for many years, lacking, of course, a Hawaiian language community as well as the diaspora of native speakers of Hawaiian on most major islands except Ni‘ihau. These mānaleo had not forgotten their voice, they just lay them aside while they worked or raised their families.

The first ‘Aha Mānaleo conference inspired me to initiate a community television show called “Mānaleo.” The mission of “Mānaleo” was to record the Hawaiian voice for generations and was also very much inspired by the Hawaiian language radio program produced by Larry Kauano Kimura for many years called “Ka Leo Hawai‘i.” “Mānaleo” began with “Ho‘olono,” the very song that Edith Kanaka‘ole inspired me to compose in response to a prayer and that I have described as assisting me in creating authentic learning material for my students. These shows were aired on community television and were sources of information on various topics like fishing, place names, naming practices, birthing practices, and more.

Today, over 200 shows of “Mānaleo” are housed in libraries like the Wong Audiovisual Center at University of Hawai‘i at Mānoa and Ka‘iwakīloumoku Hawaiian Cultural Center on the Kapālama campus of The Kamehameha Schools. There, students

¹¹ ‘Ahahui ‘Ōlelo Hawai‘i is the Association of Hawaiian Language Teachers, Students and Native Speakers.

of the Hawaiian language can study and appreciate the voices and stories of our kūpuna. Along with Larry Kimura's "Ka Leo Hawai'i" series of radio recordings of elders from the 70s and 80s, "Manaleo" forms a corpus of Hawaiian language interviews for future study and curriculum development.

In the absence of wonderful kupuna teachers like Hale and Kauahipaula, who have passed on, media and other digital technologies may have to be utilized to capture the attention of new learners of Hawaiian. This situation returns us to the Villa's (2002) identification of films, recordings and other media as authentic materials. The other media that Villa speaks of includes the ever expanding cyber and virtual world as well as social media. These are potential avenues to promote and foster leo.

Bringing leo back to lost or diminishing traditions.

I believe that lost or diminishing traditions can be revitalized through the fostering and nurturing of leo. I am particularly interested in revitalizing the leo of *hei* or Hawaiian string figures because it is a tradition known to few. Today, family learning situations and socialization opportunities for children to learn *hei* are few. *Hei* and other Hawaiian traditional ways and practices have been overwhelmed by an attraction to technology and media. Moreover, because *hei* and other traditions were taught in intimate settings like the 'ohana or even apprenticeships, these methods do not have the mass appeal and effect as media has in today's culture. Traditional methods of teaching should be continued but consideration should also be given to the use of media in creative ways as they may hold the key to revitalization of traditions and leo.

An example of the power of media and its potential to bring leo back is YouTube. There are many uploads by aficionados of string figure making. Many are Hawaiian string figures that, unfortunately, are recorded without credit to Hawaiians as *hei* tradition circulates quickly and profusely in the virtual environment. I messaged one young Caucasian string figure enthusiast who posted his creation as "Hale Pa'akai," a once popular and intricate *hei* figure. I asked if he knew if "Hale Pa'akai" was a Hawaiian figure and he did not. As a result, creating Hawaiian blogs and using YouTube or like series has the potential to misinform as well as to educate the global community on Hawaiian string figures and oral performance.

One of the reasons that hei fell to the wayside was that the Hawaiian language was suppressed. When the language was suppressed, the leo was suppressed because hei was used to chant and tell stories. Thus, one of the goals of researching hei was to restore leo to hei as well as to give new voice where there was none. I found a mo‘olelo to accompany the string figure, *Kipuka Hele La Maui*, which was found in *Ka Nupepa Kuokoa* and written by a man named Puaaloa. An analysis of Puaaloa’s narrative style as well as his use of traditional ‘ai and the patterning of ‘ai brought to the surface beautiful expressions such as, “Na wai ke kupu ‘o‘oe? Whose scion are you?” This was a seldom heard phrase in conversational speech but commonly seen in Hawaiian mo‘olelo. I used that expression to create a *mele hei* (hei chant) for the figure, not only because a mele hei was lacking but also to perpetuate its use amongst young learners. While my composition is not authentic based on concerns raised by Wong (1999), it is based on authentic material and I would recommend that future revitalization efforts always be based on such material.

Physical performances such as string figure making are more likely to continue when accompanied by oral performance. Here is that composition for the figure *Kipuka Hele La Maui*:

“*Mele no Māui*” by Kalani Akana

Na wai ke kupu ‘o‘oe?	Whose scion are you?
Nāu e Wiliwili pūhā	Yours, Wiliwili pūhā
Na Hina, na ko‘u makuahine	Also from Hina, my mother
i ha‘awi ia‘u i nā ‘aha	who gave me the ropes
Nā ‘aha he ‘umikūmālima	Fifteen of them
Na‘u ka ‘umikūmāono	Mine is the sixteenth [from you]
A me ka pōhaku nui	And the large stone weight
A loa‘a ia‘u ka ‘ahele,	I possess the snare
Kīpuka hele lā a Māui.	The lasso of Māui

Mo‘olelo such as Puaaloa’s “Ka moolelo o Maui” not only added to lāhui/mookuauhau discourse but also added to the archive of mo‘olelo, mele, and mo‘okū‘auhau. Composing new mo‘olelo and mele based on traditional ‘ai (performance

keys) is one way to reclaim and revitalize much of the Hawaiian culture that has been brutalized by assimilation.

Old voices, new beginnings.

Finally, I end this article with a story. It is a mo‘olelo, or story about the authentic curriculum in action. One of the most powerful lessons on what authentic curriculum in action is occurred when Kupuna came into my classroom to teach my Hawaiian language immersion second-graders how to weave *lauhala*, the leaf of the pandanus plant, into a bracelet. As she was teaching, the boys and girls observed without asking questions, a learning behavior she had encouraged them to do and a practice and very much aligned to our cultural value of *nānā ka maka* (the eyes watch).

Questioning was allowed after the demonstration, so as they were attempting to implement her steps, one of the boys asked the kupuna, “*Kupuna, he mea Hawai‘i kēia?* (Kupuna, is this [weaving] Hawaiian?).” She replied in Hawaiian, ““*Ae, yes*).” To this the boy nodded and said, “*A, he mea maika‘i kēia* (Ahh, [so] this is a good thing).” She simply smiled and said, ““*Ae, he mea maika‘i nō!* (Yes, this is good, indeed!).”

At that point, I realized that no amount of indoctrination could have led that boy to that realization. I also realized that it was through participating in authentic activities that he discovered his Hawaiian identity and by using his Hawaiian language that he discovered his leo.

Glossary

‘ai	Performance key (Ak., pp. 27-28)
hālau	Long house (PE, p. 52)
hānai	Foster child, adopted child; foster, adopted (PE, p. 56)
hei	String figure; cat’s cradle (PE, p. 64)
hō‘ikena	Performance (Ak., pp. 2-4)
kupuna	Grandparent, ancestor, relative (PE, p. 186)
kūpuna	plural of <i>kupuna</i> (PE, p. 186)
leo	voice (PE, p. 203)
loina	Rule, custom, manners, code, precept, law (PE, p. 210)
mānaleo	Native speaker (PE, p. 236)
mele	Song, anthem, or chant of any kind; poem, poetry. (PE, p. 245)
mele hula	Danced text (Ak., p. 14)
mele oli	Chanted text (Ak., p. 14)
mo‘okū‘auhau	Genealogical succession, pedigree (PE, p. 254)
mo‘olelo	Story, tale, myth, history, tradition, literature, legend, journal, log, yarn, fable, essay, chronicle, record, article (PE, p. 254)
‘ōlelo Hawai‘i	Hawaiian language
‘ūniki	Graduation exercises (PE, p. 372)

AK = Akana (2012)

PE = Puku‘i & Elbert (1986)

References

- ‘Aha Pūnana Leo. (1989). *Ke kumu ‘ulu*. Hilo: University of Hawai‘i, Hilo.
- Akana, K. K. (Producer). (1999). *Mānaleo #51: Elizabeth Kauahipaula*. [Video recording].
- Akana, K. K. (Producer). (2002). *Mānaleo # 103: Lilia Hale*. [Video recording].
- Akana, K. K. (2008). Kupuna ‘Elikapeka Kauahipaula. In *E lei i ke aloha o ka ‘ōlelo*. Honolulu, HI: Papaha Kaiapuni Hawai‘i, Office of Curriculum, Instruction and Student Support/Instructional Services Brach, Department of Education.
- Akana, K. K. (2012). *Hō ‘ikena Hawai‘i*. Unpublished manuscript.
- Bacchilega, C. (2007). *Legendary Hawai‘i and the politics of place: tradition, translation, and tourism*. Philadelphia: University of Pennsylvania Press.
- Bauer, H. (1982). *Hawaii the aloha state* (2nd Ed.) Honolulu, HI: The Bess Press.
- Bauman, Richard (1977). *Verbal art as performance*. Long Grove, Illinois: Waveland Press, Inc.
- Beckwith, M. (Trans.) (1917). *The Hawaiian romance of Laiekawai*. New York, NY: Columbia University.
- Benham, M. K. P., & Heck, R. (1998). *Culture and educational policy in Hawaii: The silencing of native voices*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cajete, G. (2000). *Native science: natural laws of interdependence*. Santa Fe, NM: Clear Light Publishers.
- Brant-Castellano, M. (2000). Updating aboriginal traditions of knowledge. In G. Sefa Dei, B. Hall, & D. Rosenberg (Eds.), *Indigenous knowledges in global contexts: Multiple reading of our world* (pp. 21-36). Toronto, Canada: University of Toronto Press.
- Desha, S. L. (2000). *Kamehameha and his warrior Kekūhaupi‘o*. (F. Frazier, Trans.) Honolulu, HI: Kamehameha Publishing.
- Fine, M. & Weis, L. (2003). *Silenced voices and extraordinary conversations: Re-imagining schools*. New York, NY: Teachers College press, Columbia University.
- Focault, M. (1970). *The order of things. An archaeology of the human sciences*, London, UK: Tavistock Publications.
- Focault, M. (1972). *The archaeology of knowledge*, London, UK: Tavistock Publications.

- Foucault, M. (1979). *Discipline and punishment: The birth of the prison*. (A. Sheridan, Trans). New York: Pantheon Books.
- Greenblatt, S. (1989) *Shakespearean negotiations: The circulation of social energy in Renaissance England*. Berkeley: University of California Press
- Hawai'i Department of Education. (1983). *Grade K-1 Hawaiian studies curriculum guide*. Honolulu, HI: Office of Instructional Services.
- Hawai'i Department of Education. (1983). *Grade 2 Hawaiian studies curriculum guide*. Honolulu, HI: Office of Instructional Services.
- Hawai'i Department of Education. (1983). *Grade 4 Hawaiian studies curriculum guide*. Honolulu, HI: Office of Instructional Services.
- Hawai'i Department of Education. (1983). *Grade 6 Hawaiian studies curriculum guide*. Honolulu, HI: Office of Instructional Services.
- Hawai'i Department of Education. (1985). *Grade 3 Hawaiian studies curriculum guide*. Honolulu, HI: Office of Instructional Services.
- Hazama, D. O., & Komeiji, J. O. (1986). *Okage same de: The Japanese in Hawai'i 1885-1985*. Honolulu: Bess Press.
- Ho'omanawanui, S. (2007). *Pele's appeal: Mo'olelo, kaona, and huluhia in "Pele and Hi'iaka" literature (1860-1928)* (Doctoral dissertation, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawai'i.(Publication No. AAT 3288107).
- Ho'oulu māhiehie (1906). Moolelo o Hiiakaikapoliopole. *Ka Na'i Aupuni*, Kep. 11, 1906.
- Ho'oulu māhiehie (1906/2007). Moolelo o Hiiakaikapoliopole. In M. P. Nogelmeier (Ed.) *Hi'iakaikapoliopole*. Honolulu, HI: Awaiāulu .
- Kahiolo, G. W. (1861/1978). *He moolelo no Kamapua'a: The story of Kamapua'a* (Mookini, E. T., Neizmen, E. C., & Tom, D., Trans.). Honolulu, HI: Hawaiian Studies Program, University of Hawai'i.
- Kame'eleihiwa, L. (1992). *Native land and foreign desires: Pehea la e pono ai? How shall we live in harmony?* Honolulu, HI: Bishop Museum Press.
- Kame'eleihiwa, L. (1996). *A legendary tradition of Kamapua'a the Hawaiian pig-god*. Honolulu, HI: Bishop Museum Press.

- Kanahele, P. (2011). *Ka honua ola: 'Eli 'eli kau mai. The living earth: Descend, deepen the revelation*. Honolulu, HI: Kamehameha Schools Press.
- Kaomea, J. (2000). A curriculum of aloha? Colonialism and tourism in Hawai'i's elementary textbooks. *Curriculum Inquiry*, 30(3), 319-344.
- Kaomea, J. (2001). Dilemmas of an indigenous academic: a native Hawaiian story. *Contemporary Issues in Early Childhood*, 2(1), 67- 81.
- Kaomea, J. (2009). Contemplating kuleana: Reflections on the rights and responsibilities of non-indigenous participants in programmes for indigenous education. *AlterNative: An International Journal of Indigenous Peoples*, 5, 78-99.
- Kapono, E. (1994). Hawaiian language revitalization and immersion education. *International Journal of the Sociology of Language*, 112, 121-135.
- Kawai'ae'a, K., Housman, A., & Alencastre, M. (2007) Pū'ā i ka 'Ōlelo, Ola ka 'Ohana: Three Generations of Hawaiian Language Revitalization. In *Hulili: Multidisciplinary research on Hawaiian well-being*. 4 (1), 183-238.
- Kimura, L. L. (2002). *Na mele kau o ka mahele mua o ka mo'olelo 'o "Hi 'iakaikapoliopele" na Joseph M. Poepoe: He kalailaina me ke kalele ma luna o na ku'inaiwi kaulua* (Master's thesis, University of Hawai'i at Hilo). Retrieved from Dissertations & Theses: Full Text. (Publication No. AAT 1411491).
- Macherey, P. (1978). *A theory of literary production*. London: Routledge & Keegan Paul.
- Nogelmeier, M. P. (2003). *Mai pa'a i ka leo: Historical voice in Hawaiian primary materials, looking forward and listening back*. (Doctoral dissertation, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawai'i (Publication No. AAT3110025).
- Nogelmeier, M. P. (Ed.). (2008). *The epic tale of Hi 'iakaikapoliopele*. Honolulu, HI: Awaiaulu Press.
- Parascondola, L. (2001). *Cheap labor in a world of precious words: What do writing classes produce*. Retrieved from <http://louisville.edu/journal/workplace/issue7/parascondola.html>
- Perreira, H. K. (2002). *Ke kalailai mo 'omeheu 'ana i "Ka mo'olelo hiwahiwa o Kawelo, ka hiapa 'i'ole a ka ikaika, ka mea nana I ho'oha'aha'a ke 'o'oleaa o Kauahoa, 'Ka U'i o Hanalei.' 'O ka mea nana ka la'au kaulana 'o Ku'ika'a, a nana ka*

- wahine ho'olei 'ikoi 'o Kanewahineikiaoha*" (Master's thesis, University of Hawai'i at Hilo). Retrieved from Dissertations & Theses: Full Text (Publication No. AAT1409078).
- Perreira, H. K. (2009). *Ka mo'olelo hiwahiwa o Kawelo*. Honolulu, HI: Bishop Museum Press.
- Pescaia, M. (1981). *Early Hawaiian life: Instructional materials/resources for social studies (elementary)*. Honolulu, HI: Office of Instructional Services/General Education Branch, Department of Education.
- Puku'i, M. K. & Elbert, S. H. (1986). *Hawaiian dictionary*. Honolulu, HI: University of Hawai'i Press.
- Puaaloa. (1863, 27 Iulai & 4 Iulai). *Ka moolelo o Maui. Ka Nupepa Kuokoa*.
- Sai, D. (2008). *The American occupation of the Hawaiian kingdom: Beginning the transition from occupied to restored state*. (Ph.D. dissertation, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawai'i. (Publication No. AAT 3347669).
- Silva, N. (2004). *Aloha betrayed: Native Hawaiian resistance to American colonialism*. Durham, NC: Duke University Press.
- Tobin, J. (2000). *"Good guys don't wear hats:" Children's talk about the media*. New York, NY: Teachers College Press.
- Trask, H-K. (1999). "Lovely Hula Hands": Corporate tourism and the prostitution of Hawaiian culture. *From a native daughter; Colonialism and sovereignty in Hawai'i, revised edition*. Honolulu, HI: University of Hawai'i Press, pp. 136-47.
- Villa, D. J. (2002). Integrating technology into minority language preservation and teaching efforts: An inside job. *Language learning and technology*, 6(2), 92-101.
- Warner, S. L. (2008). Kuleana: The right, responsibility, and authority of indigenous peoples to speak and make decisions for themselves in language and cultural revitalization. *Anthropology & Education Quarterly*. 30(1), 68-93.
- Warner, S. L. (1996). *I ola ka 'ōlelo i nā keiki: Ka 'apo 'ia 'ana o ka 'ōlelo Hawai'i e nā keiki ma ke Kula Kaiapuni*. (Ph.D. dissertation, University of Hawai'i). Retrieved from Dissertations & Theses @ University of Hawai'i. (Publication No. AAT 9629864).

- Warner, S. L. N. (1999). Hawaiian language regenesi: Preparing for intergenerational use of Hawaiian beyond the school. In T. Huebner & K. A. Davis (Eds.), *Sociological perspectives on language policy and planning in the USA: Studies in bilingualism*. pp. 313–332.
- Wong, K. L. (1999). Authenticity and the revitalization of Hawaiian. *Anthropology and Education Quarterly*, 30 (1), 94-115.
- Wong, K. (2006). *Ways of fingering the culprit in Hawaiian*. (Ph.D. dissertation, University of Hawai‘i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawai‘i. (Publication No. AAT 3216099).
- Yamauchi, L. Ceppi, A. K., & Lau-Smith, J. (2000, Nov. 22). Teaching in a Hawaiian context: Educator perspectives on the Hawaiian language immersion program. *Bilingual research journal: The journal of the National association for bilingual education*. 34 (4), 385-403.

Article 2

Life is Memory; Life is Transmission

Life is Memory; Life is Transmission.

I believe we are in a perpetual search for identity. If so, we are permanently in a quest for meaning and a quest that necessitates a life apprenticeship in the discovery, recovery, and passing on of culture and history. It is in this life apprenticeship, that we become the guardians of the values and cohesion of our people. This is an awesome responsibility!

Life is Memory

The written literature on Hawaiian hei (string figures) includes Dickey's (1928) *String figures from Hawai'i*, a short article by Emerson (1924) for Vassar College, and a generic article on Hawaiian games by Culin (1899) with small mention of hei elsewhere (Averkieva & Sherman, 1992; Haddon, 1930; Jayne, 1962). In order to publish these few accounts, Hawaiian 'ike (knowledge) was collected and documented like other curiosities of the world. It was catalogued, documented and shelved. More often than not, this 'ike was researched with little or no credit to Hawaiian informants. In the case of hei, only passive acknowledgement of Hawaiians was given in Dickey's photo captions. Moreover, as demonstrated in Bolton's (1891) "Some Hawaiian Pastimes," representations of native Hawaiians were negative:

My companion on this voyage had secured at Kaluakahua a very fine skull, with teeth in perfect preservation, and altogether an ethnological treasure. Mr. Gay cautioned him not to let the superstitious boatmen [natives of Ni'ihau] see the skull, lest they should refuse to start on the voyage, and he concealed it in a piece of baggage (p. 26).

Research during this era was an act of collecting and harvesting—skulls, artifacts, and hei figures were seen as collectibles.

A formal literature review on *hei* is rather limited, and all found sources are secondary accounts. However, when the review of literature is conducted in an indigenous way, it becomes larger. An indigenous review considers primary sources and accounts told through *mo'olelo* (story, history), or *mele* (chant). "Hei" means to "ensnare

and capture,” so hei has the potential to capture the memories of our ancestors, thereby enlarging the reservoir of memories and the archive.

Not until 1943, when Mary Kawena Puku‘i wrote “Games of my Hawaiian Childhood” in the *California Folklore Quarterly*, did an indigenous researcher and writer enter into a Hawai‘i academia dominated by white males. In the introduction to Puku‘i’s *Folktales of Hawai‘i*, her daughter Pat Bacon recalls, “People would rant and rail at her. When she was doing the dictionary, people would call her up and curse her. She would come back in tears. But she kept at it. She’d tell us, If I don’t do it, who’s going to” (Puku‘i & Green, 1995, xiv). Fortunately, Puku‘i’s persistence and life apprenticeship resulted in countless other works. Former Bishop Museum director, Donald Duckworth, said it so well:

Mary Kawena Pukui gathered and told the stories that appear here [*Folktales of Hawai‘i*] out of a deep devotion to Hawaiian culture, a love her family instilled in her as a child and to which she devoted her entire life. She and her ancestors are perpetuated in these *mo‘olelo* (p. xiv).

Puku‘i wrote about what she lived and experienced. In writing from an indigenous worldview she was one of a few native Hawaiian women to transform research by asserting and inserting Hawaiian worldview into mainstream literature.

Few Hawaiians, especially women, were allowed into mainstream literature. One of those women, a forerunner of Puku‘i, was Emma Nāku‘ina, whom Bacchilega (2007) described in this way:

“...she deserves recognition as an important link in the Native Hawaiian genealogy of tellers and translators of *mo‘olelo* into English for, engaging with dominant discourses, her writings affirmed the value and values of her people. She practiced autoethnography and translation in clever ways that—epistemologically and rhetorically—countered the violence of *legendary Hawai‘i* and defied the tourism industry’s agenda (p. 103).”

Like Nāku‘ina, Puku‘i practiced autoethnography and translation in ways that transformed 20th century Hawaiian scholarship. While Puku‘i’s paragraph on hei is short, it is enriched, nevertheless, with life stories and experiences that give deep insights into the thinking and values of her ancestors. An analysis of Puku‘i’s works will show that her

strong sense and knowing of herself as a daughter of Ka‘ū¹ enabled her and later generations of Hawaiian researchers to connect to their heritage. In that connection, they countered the effects of what Bacchillega called *legendary Hawai‘i*. Our mo‘olelo are not legends or myths but are true histories.

Puku‘i’s linking of story and chant to hei forms the impetus for me to research hei and the research methodology discussed in subsequent chapters of this dissertation. Puku‘i’s use of *mo‘olelo* (history, story) is an important method for Hawaiian researchers to consider.

Mo‘olelo. When we consider the Hawaiian language archive and the mo‘olelo for hei, we find the archive to be quite extensive. First, consider Puku‘i’s story from the *California Quarterly*, a story she used to discuss the hei figure made for water gourd:

A favorite story was that of the quarrel between the red flycatcher called Elepaio [Chasiempis sandwich-ensis] and the yellow-tailed Amakihi [Chlorodrepanis virens]. The two birds were flitting about when Elepaio chanced to brush the face of a man carrying gourds of water, which he was bringing from a distance. Startled, the man dropped the gourds, they broke, and the water was lost. He was angry and hurled a stone which wounded Elepaio.

The bird called: E Amakihi e! Amakihi e! Ua eha au, ua pa au i ka pohaku a ke kanaka. Amakihi! O Amakihi! I am hurt! The man hit me with a stone.

His friend replied: E Elepaio e! e Elepaio e! Nowai ka hewa i pa ai oe i ka pohaku o ke kanaka? Elepaio! O Elepaio! What was your fault that the man hit you with a stone? Elepaio answered: No‘u ka hewa, no‘u ka hewa, I naha ia‘u ka huawai [huewai] a ke kanaka. My fault was this, my fault was this, I broke the man’s water-gourd.

Amakihi retorted: Hewa ha oe, hewa ha oe, I naha ai ka huawai a ke kanaka. Then you were to blame, you were to blame for breaking the man’s water-gourd.

¹ Ka‘ū is the southern district of the Island of Hawai‘i. See *The Polynesian Family System of Ka‘ū, Hawai‘i* for Puku‘i’s description of the people and land of her ancestors.

Elepaio thereupon lost his temper and cried: Amakihi! o Amakihi! Puapua lenalena, awaawa ke ai aku! Amakihi! Amakihi! You yellow-tailed fellow, you are too bitter to eat (p. 206).

Puku‘i did not spend time on the technical aspects of creating the hei, rather, she provided the context for her readers. The Hawaiian language text she provided reflected Puku‘i’s Hawaiian worldview, something quickly lost in the English language version of this story that appeared in *Tales of the Menehune* (Puku‘i, 1960). The translation also lacked connection to the hei figure. Moreover, even modern retellings of this story in Hawaiian lack the clarity and detail provided by Puku‘i’s intimate knowledge of Hawaiian.

Figure 1. *Huewai o Kupolo‘ula*

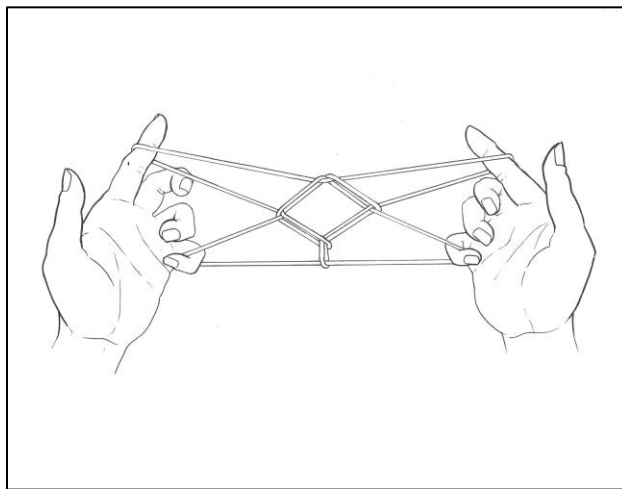


Figure 1. The spigot of the huewai or water gourd is facing down. Drawing by Kimberlie Wong.

Puku‘i’s story led me on a hunt for a mo‘olelo for *Huewai o Kupolo‘ula* as shown in Figure 1. Through a search of the Hawaiian language archive, I found a reference to Kupolo‘ula in the story of ‘Aukelenuia‘ikū, said to be “one of the most noted of all legends of Hawai‘i nei, having its origin in the land of Kuaihelani” (Fornander, 1916, p. 32). This mo‘olelo explains why the hei figure shows the gourd with its spigot facing downward. In the mo‘olelo, ‘Aukelenuia‘ikū searched for the life-giving waters of Kāne to revive his dead nephew and brothers. He travelled great distances and time and found

it hidden in the depths of a faraway ocean. The gourd is inverted; otherwise, the life-giving waters would escape. Important themes like ‘Aukelenuia‘ikū’s quest for life-giving waters provide indigenous researchers with metaphors to guide their own research and the permanent “quest for meaning.”

Puku‘i’s ‘elepaio story and ‘Aukelenuia‘ikū both lead me to regard mo‘olelo as authentic sources of knowledge in this quest for meaning. Of the 118 hei figures collected and described by Dickey (1928), the following have some mo‘olelo or hint towards finding an original, primary source document written in Hawaiian:

- a) *Ku e Hoopio ka la* or *Kuahaupio*—“Up rose the sun’ (*ku e hoopio ka la*) is the most famous of Hawaiian string figures. The accompanying chant is regarded as having a higher literary quality than that of other figures. It recites in turn the divisions of the island of Hawai‘i, alluding to some well-known feature of each division, relating through metaphor a love tale” (p. 14).
- b) *Kumuwai o Puna*—“The Kumuwai o Puna is a pool whose waters are said to have the quality of making a swimmer’s skin appear white, turning a Hawaiian temporarily into a white person” (p. 19).
- c) *Piko o Kahoali ‘i*—“At the ancient New Year religious ceremonies a man would represent a god, Kahoalii, and walk naked in the line of gods ahead of the featherwork idols” (p.35).
- d) *Huewai o Kupolo ‘ula*—“With a gourd (*huewai*) Kupoloula, chief of Niihau, son of King Kuhaimoana, drank the sacred water of Kupaoa. Kaula was one of his guards. This gourd held the water of life of Kane. It was hidden six months’ journey toward the rising sun, in the mystic Kanehunamoku, at the bottom of a hole guarded by Kanenaiau, placed there as guard by Kamohoalii, brother of Pele. Aukelenuiaiku, in order to bring to life his nephew and brothers, sought and obtained the gourd and broke its neck and cut up the net that held it” (p. 39).
- e) *Waiu o Hina*—“Hina, her full name Hinakeahi (Hina-ke-ahi), was the wife of Ku and mother of the demigod Maui” (p. 45).

- f) *Lonomuku*—“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 over a cliff. She finally rebelled 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” (p. 51).
- g) *Wailua*—“Uluena was a heiau. The places Huluena and Manuena are represented in the string figure by the loops in the upper part about the index loops, Huluena on the right, Manuena on the left. Makakii, represented in the string figure by the crossing strings between Huluena and Manuena was a place where chiefs were conceived” (pp. 56-57).
- h) *Hawai‘i Nui*—“Hawai‘i Nui A² tells the story of a wreck of a happy home, using ancient symbols, now obscure, taken mainly from a chant of Lono-i-ka-makahiki. The home is pictured as a house, and the symbols includes islands, places, and the structure of a house” (p. 64).
- i) *Ka Laau a Kaleikini*—“Kaleikini was a chief of Kona, Hawaii, who with *kauwila* wood, stopped up holes in the rocky seacoast so that spray from the sea would not come through and injure crops” (p. 67).
- j) *Kinikuapuu A*—“Kini, the hunchback, with aid of two hunchback demigods, Ieiea and Poopalu, fishermen of the god Makalii and protectors of Kini, stole the bananas of Kahuoi, a legendary field located variously on Hawaii, Maui, and Kauai” (p. 69).
- k) *Palila B*—“Palila was a Kauai warrior. At one time e lived with his boy Puana and an old nurse Lupea in the forest, eating the gum of the kukui tree and wild bananas” (p. 72).
- l) *Waiu o Lewa*—“Waiu o Lewa is the name of two hills near Kahuku” (p.80).

² Alphabets are used by Dickey to show that there are several versions of a string figure such as *Hawai‘i Nui A* and *Hawai‘i Nui B*.

- m) *Kukuilauania A*—“Kukuilauania (Kukui-lau-ania) is a little highland on the island of Hawaii from which a view may be had across Hilo into Puna. In Puna were the sacred groves of kukui trees of Hiiaka, favorite sister of Pele, goddess of the volcano, who sent Hiiaka to Kauai, after her lover, Lohiau. On her return after a long trip full of adventure, fighting of dragons, and raising of Lohiau from the dead, Hiiaka, looking from Kukuilauani saw her precious kukui trees cooked red by the lava flow of Pele who had become impatient and angry. In the chant of the string figure, Hiiaka, in metaphor, tells her horror at the sight, and her resolve that she will no longer regard Pele as a sister and serve her” (pp. 89-90).
- n) *Hula Lumahai*—The simple figure, *hula Lumahai*, has inspired five different chants. The first, a Kauai one, alludes to a robber named Kapuaapilau who lived at Kealahula between Lumahai and Hanalei, where the path runs along the seacoast and at times, where it leads around a headland, is covered by the sea. While Kapuaapilau lay in wait, his watchman on a little hill would make a cry, apparently innocent, which would tell him whether the travelers were too strong in numbers. The cry of the chant says the travelers are too many to be safely attacked. When few the robber would kill the travelers and throw the bodies in a hole in the rocks, whence they were carried to sea” (p. 95).
- o) *Kipuka Hele La Maui*—“This figure makes the famous lasso with which Maui caught, and broke off, one by one, the legs which the sun put over Haleakala, as he climbed out of the pit of night to start his day’s journey round the world, until the sun agreed to travel more slowly and allow Maui’s mother time to do her day’s housework” (p. 97).

- p) *He Kanaka A, Ana Paakai, or Hale Paakai*—“Two live in a house or cave who do not care to entertain beggars. If a man approaches bearing a gift, he is welcome, if not the door is shut in his face. ‘Salt’ in the chant and title stands for anything of value, for salt was something people had to travel far to get. The title perhaps means a ‘wealthy home’” (p. 104).
- q) *Kalalea*—“Kalalea is a sharp, prominent peak in the mountain range above Anahola, Kauai. Jutting from it is a shorter peak with a hole in it named Koananai that has many legends connected to it” (p. 110).

These short descriptions and story fragments in Dickey provided clues to conduct an ‘Aukelenuia‘ikū-like search in other primary sources written in Hawaiian. In addition to the Hawaiian informants, Dickey included mele that other collectors gleaned from the native milieu, primarily from Emerson, Fornander, and Kelsey. Their collections also provided glimpses into the Hawaiian hei archive.

Fornander’s (1917-1920) anthology of “antiquities and folklore,” which was recorded in Hawaiian and later translated into English, provided ample record of Hawaiian language mo‘olelo. However, there is a problem with “antiquities and folklore.” These categories of European and American nineteenth-century thought were explained by Bacchilega (2007): “Because ‘folklore’ was and is often viewed in the science-centered West as an outmoded or ‘false’ way of knowing, this classification has unfortunately also provided an opening to view the *mo‘olelo* as ‘untrue’ (p. 9).” Instead, mo‘olelo here is viewed as (hi)story (Osorio, 2008), as tradition (Kaume‘eleihiwa, 1992), national identity (Silva, 2004) and resistance “against the missionary dismissal of *mo‘olelo* as savagery and ignorance” (Bacchilega, 2007, p. 10).

Dickey’s rendition of *Na Kanaka Alualu kai o Leahi* is a prime example of mo‘olelo as tradition. A story recounted by Kalua Keale, an elder from the island of Ni‘ihau, is recorded in Tava and Keale (1989, p. 92). This story of *Na Kanaka Alualu kai o Leahi* was also known by the late Hawaiian educator and indigenous researcher, ‘Ilei Beniamina, a native of Ni‘ihau, who said that this figure depicted two rocks in the ocean of Le‘ahi [translation by Beniamina, “not Diamond Head”] that would run up unto land

when the water got rough and retreated back to the ocean when the water receded (I. Beniamina, personal communication, September 18, 2008).

The location of these rocks was also known by Ni‘ihau scholar, Ipo Kanahele Wong (personal communication, April 11, 2010), thus illustrating the power of oral history. Wong’s (2010) dissertation on the transmission of traditional knowledge on the unique island of *Ni‘ihau* further validated the power of mo‘olelo in that process. Moreover, both indigenous women were related to Kalua Keale as well as to one of Dickey’s Ni‘ihau informants, Mrs. Miriam Kanahele, who is shown at the back of the Dickey book demonstrating *Na Kanaka Alualu Kai o Leahi*.

While Tava (1989) was not correct in writing, “The art of string figures is no longer practiced on Niihau” (p. 41), those knowledgeable of hei Ni‘ihau are diminishing. It is critical, then, for the descendants of Miriam Kanahele to continue telling the mo‘olelo of *Na Kanaka Alualu Kai o Leahi* and pointing out the rocks and making the hei figure. The hei figure is a record of that story and memory.

Mele. In addition to mo‘olelo, there are *mele* or chanted text that accompany the creation of hei. Dickey preserved this chant to accompany the directions for making *Huewai of Kupolo ‘ula*:

“E! io e, e! io e.

Ua pa wau i ka pohaku a ke kanaka!”

“Nowai ka hala?”

“No‘u ka hala.

Ka pao ana i ka huewai a ke kanaka.”

“Hewa ha oe. Hookolo ia i ka hui manu o kakou”

“Oh, io! Oh, io!

The man has hit me with a stone!”

“Whose fault was it?”

“It’s my fault

Pecking holes in the man’s water gourd.

“Your fault indeed. You will be tried at our court of birds.”

(Dickey, 1928, p. 41).

While the stories are different, it is obvious when comparing it with Puku‘i’s story, that the chant belongs to the same ‘elepaio-versus-man story that she described. Many contemporary Hawaiian musicians sing a version of this chant, but the version taught to me by elder, scholar, and composer, William Pānui, is closest to Dickey’s version. Pānui’s *kupuna* (grandparent) was an editor of a Hawaiian language newspaper and, likewise, very literate and knowledgeable of the Hawaiian archive. Pānui is also a native speaker of the language, which enabled him to compose new mele and mo‘olelo. The mele text, like Puku‘i’s Hawaiian language text, reflects an older and more traditional worldview:

‘Io ē, ‘io ē, ‘io ē

Ua pā wau i ka pōhaku a ke kanaka.

No wai ka hala?

No‘u ka hala.

I ke aha ‘ana?

I ku‘u peku ‘ana, ka pao ‘ana i ka hūewai a ke kanaka.

(W. Pānui, personal communication, May 7, 1977)

An indigenous literature review would not be complete without assessing the mele that comprise the Hawaiian repertoire for hei. Dickey did not have a mo‘olelo for *Waawaa iki* and *Pae Mahu*, but there are mele (Table 1) that are worthy of review because in many cases his book is the only source for the chants used for hei. While it is fortunate to have the mele recorded, it would have been helpful to know which Hawaiian informants taught him a particular hei. Of the Ni‘ihau string figures, which hei did Miriam Kanahale know? Dickey’s photo of Mrs. Moonihoawa of Ni‘ihau also causes one to wonder what figures she knew. Nevertheless, the mele listed in Table 1 are important sources of information that provide native insight into the hei figure making.

Table 1.
Mele in Dickey (1928)

	Dickey's <u>Hei names</u> & First line of mele	Description	Other known source(s)
1	<u><i>Ku e Hoopio ka la</i></u> Ku e ho'opi'o ka la... pp. 15-18	9 sliding consecutive figures showing the 6 districts of the island of Hawai'i	Fornander, Vol. 6, Part 1 pp. 212-213, Henriques-Peabody Collection, Bishop Museum
2	<u><i>Koko o Makalii</i></u> Hiu ai la kaupaku Hanalei... p. 23	Two-eyes made with the assistance of the big toe. Shows the net of Makali'i where he kept the food of man.	J.S. Emerson, p. 10
3	<u><i>Nenue (rudder fish)</i></u> Pulehu ka nenue... p. 19	One eye	Aina Keawe, Mary Kawena Puku'i audio recording in Bishop Museum
4	<u><i>Huewai o Kupoloula A</i></u> ³ Auhea oe, kuu huewai... p. 36	Water drinking gourd	"He mo'olelo no 'Aukelenui" in A. Fornander Vol 4, Part 1, p. 32-108
5	<u><i>Huewai o Kupoloula B</i></u> Imi o ka lani i ka wai huna a Kupao'o... p. 41	Water drinking gourd	"He mo'olelo no 'Aukelenui" in A. Fornander Vol 4, Part 1, pp. 32-108, Tava & Keale, p. 41
6	<u><i>Halekumukaaha</i></u> Halekumukaaha, kii mai nei au i ka 'aha... p. 39	A doubled string is typically used to show a very strong, well-built house.	Mary Kawena Puku'i demonstration, Bishop Museum Audio Visual Collection.

³ Dickey uses alphabets (A,B,C) to distinguish between versions of various string figures.

Table 1. (continued)

Dickey's <u>Hei names</u> & First line of mele		Description	Other known source(s)
7	<u><i>Waiu o Hina</i></u> Mooiki e, mooiki e... p. 47	The “breasts of Hina” is part of <i>Mooiki</i> , a sliding figure that can be manipulated to move back and forth.	Fornander Vol. 5, Part 1, p. 49
8	<u><i>Mooiki A</i></u> Mooiki e, mooiki e... p. 49	A sliding figure that can be manipulated to move back and forth with two loops moving together. One represents a grandparent and the other a grandchild.	
9	<u><i>Lonomuku</i></u> Akahi wawai [wāwae] loihi... p. 52	An asymmetrical figure showing Lono, the Hawaiian lady in the moon.	<i>Ka Hae Hawaii</i> , Iulai 14, 1858, p. 57 <i>Ka Nupepa Kuokoa</i> , Malaki 30, 1865, p. 3.
10	<u><i>Lonomuku</i></u> O Honuaula, O Kuawalu...	An asymmetrical figure showing Lono, the Hawaiian lady in the moon.	<i>Ka Hae Hawaii</i> , Iulai 14, 1858, p. 57 <i>Ka Nupepa Kuokoa</i> , Malaki 30, 1865, p. 3
11	<u><i>Kauiki or Ke Kumu o Kauiki</i></u> Ka‘uiki, Ka‘uiki, ka mauna, ka opa‘ipa‘i, e kala i ka hina, Ka‘uiki... p. 53	A series of sliding figures, the first showing the hill named Ka‘uiki from which Lonomuku leapt to the moon. The other figures made are <i>Honua‘ula</i> and <i>Kuawalu</i> , <i>Huewai</i> , and <i>Papai o Honokapu</i> .	Theodore Kelsey Collection 1891-1987, Bishop Museum

Table 1. (continued)

Dickey's <u>Hei names</u> & First line of mele		Description	Other known source(s)
12	<p><u><i>Kauiki or Ke Kumu o Kauiki</i></u></p> <p>Kauiki i ka mauna i ke opaipai E kala i ka hina Kauiki... p. 53</p>	Same as above.	Joseph Swift Emerson Collection, 1843-1930, in Bishop Museum
13	<p><u><i>Kauiki or Ke Kumu o Kauiki</i></u></p> <p>O Honuaula, O Kuawalu!... p. 55</p>	A continuation of <i>Kauiki</i> . A y-shaped image. Two loops represent the two temples of Honua‘ula and Kuawalu.	Kamakau (1992), p. 116
13	<p><u><i>Kauiki</i></u></p> <p>He aloha Kauiki ukaka... p. 76</p>	Same as above.	Joseph Swift Emerson Collection, 1843-1930, in Bishop Museum & Helen Roberts Collection, Bishop Museum
14	<p><u><i>Wailua</i></u></p> <p>Wailua nui lanai e ku i ka maka o Uluena... p. 56</p>	A series of 3 sliding figures: the first showing sacred locations in Wailua district; the second showing two hills; and the third showing a famous spring	Photo by Lyle Dickey of informant, Kini ‘Ainake performing the first two figure, Kaua‘i Historical Society.
15	<p><u><i>Wailua Nui Lanai</i></u></p> <p>Wailua nui a Lanai ka nana la i ka maka o Huena... p. 59</p>	Same as above	Photo by Lyle Dickey of informant, Kini ‘Ainake performing the first two figure, Kaua‘i Historical Society.

Table 1. (continued)

Dickey's <i>Hei names</i> & First line of mele		Description	Other known source(s)
16	<p><u><i>Hawaii Nui A</i></u></p> <p>Hawaii nui a Kane, ‘o Hilo a Kane a kapu...</p> <p>p. 65</p>	<p>A figure of a body with arms and legs that appears in <i>Lonomuku</i> (#10) and <i>Kuhau pi‘o ka la</i> (#1). This slides into a second figure named <i>Ku i Halawa ka Pou</i> (the post stood at Hālawa)</p>	<p>“Ke ālialia o Māna” in “Ka Moolelo o Lonoikamakahiki,” in Fornander Vol. 4, Pt. 3, pp. 283-289</p>
17	<p><u><i>Hawaii Nui B</i></u></p> <p>Hawaii nui a Kane, ‘o Hilo a Kane o ke kapu...</p> <p>p. 68</p>	<p>Same as above with slight variations in construction.</p>	<p>“Ke ālialia o Māna” in “Ka Moolelo o Lonoikamakahiki,” in Fornander Vol. 4, Pt. 3, pp. 283-289</p>
18	<p><u><i>Kiniakuapuu A</i></u></p> <p>O Kinikuapuu ka mea nana i ai ka ea maia a Kahuoi...</p> <p>p. 69</p>	<p>A series of three abstract figures: (1) <i>Kinikuapu‘u</i> (hunchback); (2) <i>Na Keiki Pii Niu</i> (childred climbing coconut trees); and (3) <i>Na Keiki Kohi Paoo</i> (children digging for potatoes).</p>	<p>Fornander Vol. 5, Part 3, p. 600, Kaluhiwa, Keluia Kailiena, (b.ca. 1823), performer, recording in Bishop Museum</p>
19	<p><u><i>Kiniakuapuu B</i></u></p> <p>p. 72</p>	<p>The figure showing the hunchback, Kinikuapu‘u, transforms into Palila A (#19)</p>	<p>Fornander Vol. 5, Part 3, p. 600.</p>

Table 1. (continued)

Dickey's <i>Hei</i> names & First line of mele		Description	Other known source(s)
19	<p style="text-align: center;"><u><i>Palila A</i></u></p> <p style="text-align: center;">O Palila, O Puana, ka hanai a Lupea...</p> <p style="text-align: center;">p. 72</p>	<p><i>Palila A</i> is a continuation of <i>Kinikuapu'u B</i>, also known as <i>Palila</i> on Ni'ihau. The second figure that it slides into <i>Malo o Puaula</i>, the red flower loin cloth of Palila.</p>	<p>"He kaa no Palila," Fornander, Vol. 5, Part 1., pages 136-153.</p> <p>"O Palila, 'o ka hānai a lupe a makua keiki i ka nāhelehele piele i ka 'aila a ku'u hanauna." Another mele <i>hei</i>: "Ho'olau makani o Hilo, nā hoa, aia mai 'ō a 'ō, palila."</p> <p>Interview with Akaneki Kaluaipuuwai Pomaikai, Kimona Pahuole Pomaikai and Dorothy Barrere. Recorded in Kailua, O'ahu on March 18, 1952, at the home of Margaret Pomaikai Kincaid, from Ni'ihau.</p>
20	<p><u><i>Tuu tamahine/ Ka hau kolokolio, and Kauiki</i></u></p> <p style="text-align: center;">Tuu tamahine, tuu tamahine/ He aloha kauiki, ukaka...</p> <p style="text-align: center;">p. 76</p>	<p>This sliding figure is comprised of 4 sliding figures: (1) <i>Kauiki</i>; (2) <i>Tuu tamahine</i> or <i>hau kololio</i>; (3) <i>alualu atu</i> (a continuation of <i>Tuu tamahine</i>) ; and (4) <i>pali o Ke-E</i></p>	

Table 1. (continued)

Dickey's <u>Hei names</u> & First line of mele		Description	Other known source(s)
21	<u>Honu</u> O honu nui maeaea mai Kahiki mai ka hele ana mai... p. 77	Turtle figure.	“Honu iki, poo kuekue / Hele i kai o Kape‘a,” in Emerson, Joseph Swift, 1843-1930, Bishop Museum
22	<u>Po</u> E po e po e kau mai ka hoku... p. 79	A woven figure with 7 spaces or stars of the Pleiades.	‘Āina Keawe, Helen Roberts Collection, Kaluhiwa, Keluia Kailiena, (b.ca. 1823), performer, recording in Bishop Museum
23	<u>Hoku, Spider; Kohe ekemu</u> Kohe ekemu, kohe ekemu e hoi i ka hale la pili... p. 80	A continuation of <i>Po</i> (#22), showing a figure that can be manipulated to “wink” or “sparkle” like a star.	Emerson, Joseph Swift, 1843-1930, comp., Bishop Museum Archive Catalog
24	<u>Kalahale</u>	An abstract figure showing a triangular cloud over a plain with diagonal lines.	Poepoe, J. M. (1908, May 8). “Ka moolelo kaao o Hiiaka- i-ka-Poli-o-Pele,” <i>Kuokoa Home Rula</i>
25	<u>Kukuilauania</u> Kukuilauania au i Hilo... p. 80	This is a triangular lozenge-shaped figure that represent the burnt leaves of the candlenut tree grove of the goddess Hi‘iaka that was destroyed by Pele.	Roberts, Helen H., 1888- 1985; collector Kelsey, Theodore, 1891- 1987, collector Hale, J.P., b. 1858, collector, Bishop Museum Archive Catalog

Table 1. (continued)

Dickey's <i>Hei names</i> & First line of mele		Description	Other known source(s)
26	<p><u><i>Hula lumahai</i></u> <u><i>Waa Liilii</i></u> Pihapiha kai o ke alahula... p. 96</p>	<p>The figure looks like a small boat, hence it being called “Little canoe.” The sides of the figure can be manipulated to simulate the crashing waves spoken of in the accompanying chant.</p>	<p>Frederick Wichman (1998), p. 116</p>
27	<p><i>Kanemoa</i> Ua e, ua ka ua i Kanemoa... p. 96</p>	<p>Same figure as #26. Relationship not known.</p>	
28	<p><u><i>Waiwai e</i></u> Waiwai e, waiwai e... p. 96</p>	<p>This is the same figure as #26 but here it represents a canoe bailer.</p>	<p>Kelsey, Theodore, 1891-1987, collector</p>
29	<p><u><i>Waawaa iki</i></u> Waawaa iki naapo... p. 96</p>	<p>This is the same figure as #26 but here represents an ignorant person or <i>wa‘awa‘a iki na‘aupō</i>, an equivalent to simpleton.</p>	<p>In “He wahi moolelo,” <i>Ka Nupepa Kuokoa</i>, June 27, 1902 and Fornander Vol. 5, Part 2, pages 422-423, Frederick Wichman (1997), p. 125.</p>
30	<p><u><i>Kai o Leahi</i></u> Na kanaka alualu Kai o Leahi... p. 96</p>	<p>This figure shows two cantilevered quadrangles.</p>	<p>‘Ilei Beniamina & Ipo Wong, personal communication, Tava & Keale (1989)</p>

Table 1. (continued)

Dickey's <i>Hei names</i> & First line of mele		Description	Other known source(s)
31	<p><u><i>Hapuu-kane, Hapuu-wahine, or Puu-uala Nui, Puu-uala iki</i></u></p> <p>Hapuu-kane, Hapuu-wahine, ka‘u puu ho‘i, ka puu maluna, ka puu malalo...</p> <p>p. 100</p>	Similar to #30, it shows two quadrangles leaning outwards, possibly alluding to the fishponds of Ukoa and Lokoea that are mentioned in the mele.	
32	<p><u><i>He Kanaka A</i></u></p> <p>He kanaka, he kanaka...</p> <p>p. 105</p>	An intricate figure showing a lattice at the top of the figure and a doorway which can be closed and opened by manipulating lateral strings.	Mary Pukui performance, Bishop Museum audio visual collection.
33	<p><u><i>He Kanaka B & C</i></u></p> <p>He kanaka, he kanaka</p> <p>p. 105</p>	Like <i>Kanaka A</i> , but lacks upper lattice	Mary Pukui, Bishop Museum audio visual collection.
34	<p><u><i>Haiku A</i></u></p> <p>Hele i ke la o Ha‘iku...</p> <p>p. 109</p>	A house-shaped figure showing mountains or large quadrangular clouds.	Henriques-Peabody collection, Bishop Museum
35	<p><u><i>Haiku B</i></u></p> <p>Hele i ke aloha ai ku / Eia la e aniani mai kona aloha...</p> <p>p. 109</p>	A house-shaped figure showing mountains or large quadrangular clouds.	Henriques-Peabody collection, Bishop Museum

Table 1. (continued)

	Dickey's <i>Hei names</i> & First line of mele	Description	Other known source(s)
36	<p><u><i>Kalalea</i></u> Aloha wale Kalalea noho ma i uka.... p. 112</p>	<p>Central diamond figure shows a famous hole (arch) between Kalalea and Koananai, famous mountains of Anahola.</p>	<p>“Kalalea,” a mele hula for hula ‘ulī‘ulī, “He moolelo no Aahoaka ke koa,” in <i>Nupepa Kuokoa</i>, 1876-1877</p>
37	<p><u><i>Hawai‘i, Hale Iluna, Hale Loulu o Keawe</i></u> O Hawaii nui a Kane, O Hilo a Kane a ka po... p. 113</p>	<p>Of the three sliding figures, <i>Hawai‘i</i> and <i>Hale Loulu o Keawe</i> are similar to #16.</p>	<p>“Ke ālialia o Māna” in “Ka Moolelo o Lonoikamakahiki,” in Fornander Vol. 4, Pt. 3, pages 283-289</p>
38	<p><u><i>Okole-amo or Hele holua</i></u> Hele kaua i ka hee holua... p. 119</p>	<p>The loops on thumb, index, and middle fingers of each hand can be manipulated to show movement such as the shimmying of the Hawaiian sled rails down a course.</p>	
39	<p><u><i>Loli</i></u> E loli, e loli e Na hua kalo... p. 120</p>	<p>A simple figure. Opening A with crossed strings at center that twists and writhes like a sea cucumber.</p>	<p>Emerson, Joseph Swift, 1843-1930, comp.</p>
40	<p><u><i>Kanaio, Malo pua ula</i></u> O Ka-naio, O Ka-naio, O ka lua a Kane... p. 125</p>	<p>The figure shows the naio (<i>myoporum sandwicensis</i>) tree and blossoms then slides into the figure, “red flower loin cloth,” a covering for male chiefs.</p>	

Table 1. (continued)

Dickey's <u>Hei names</u> & First line of mele		Description	Other known source(s)
41	<u><i>Haiku B</i></u> Ka awa laulena o Hana, O kane-opa ke ne'ene'e i kahakai... p. 128	The figure shows the tops of mountains of Ha'ikū but also resembles a bird and is called Ka'iwa by a Ni'ihau informant.	Bishop Museum Collection.
42	<u><i>Kane Ulukoa</i></u> Kane ulukoa, hooulu wehiwehi o lalo... p. 129	This figure is a continuation of #35. It is a sliding figure that shows the movement of a lame person.	Rice, Ulukoa is an alternate name for Kanehunamoku Kamakau, S. M. states that Ulukoa is one many realms of the 'aumakua (ancestor god)
43	<u><i>Na Kuhihele</i></u> Na ku'ihele, na ku'ihele i apa'apa'a, i apa'apa'a... p. pp. 129-130	Like #35 <i>Haiku B</i> . The hands sway alternately up and down while chanting.	S. Kamakau (1992)
44	<u><i>Ka-ilio</i></u> Ke kupua a Kiholo, Kahuku me Ka 'ilio i Ka-ohao e... p. 131	The dog figure.	S. Kamakau (1992)
45	<u><i>Pae mahu</i></u> Pae mahu o Kauai nei... p. 132	3 upper loops and 3 lower loops represent a series of images on a petroglyph near the mouth of the Wailua river in Kaua'i.	Puku'i Collection, Bishop Museum
46	<u><i>Leho</i></u> p. 140 Auhea wale oe e ka leho, ka mea hoopau pilikia	Figure for cowrie shell. First three moves for <i>Pahiolo</i> (Saw) and <i>Pulumi</i> (Broom)	Ka'iulani Collection, H.I.M.15 Bishop Museum

Table 1. (continued)

Dickey's <i>Hei names</i> & First line of mele	Description	Other known source(s)
47	<p><u><i>Hana ka uluna</i></u> O ka hana ka uluna, ka paka a ka ua i ka lani... p. 143</p>	<p>An example of <i>pū kaula</i> (slip knots) and not hei. These are a series of slip knots that are passed over the sick person and are released</p> <p>Theodore Kelsey Collection, Hawaii State Archives</p>

Mo'okū'auhau.

Lastly, in addition to mo'olelo and mele, the indigenous researcher must consider *mo'okū'auhau* (genealogy). The archive of mo'okū'auhau on hei are not extensive except for the stories and chants that accompany them such as found in the story of Palila or 'Aukelenuia'ikū.

The one stellar exception is *Lonomuku*. The figure itself is a mo'okū'auhau mnemonic. The lateral strings of the figure in Figure 2 show the two lines of chiefs descended from *Lonomuku* also known as Hina in mo'okū'auhau. The longer string represents Puna, the oldest child of Hina and 'Aikanaka, and the shorter represents Hema, the youngest child.

Figure 2. *Lonomuku* or *Lame Lono*

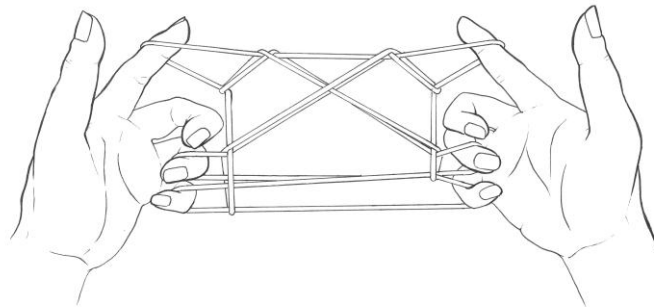


Figure 2. The longer leg represents the Puna line; the shorter leg represents the Hema line. Drawing by Kimberlie Wong.

Life is Transmission: Role of the Ho‘opa‘a

The mele hei for figure #31, *Haiku B* in Table 1 is often referred to as being the antecedent for a hula often chanted by *ho ‘opa ‘a*, the chanters and musicians of performances of hula. Here is the entire mele hei.

Mele hei.

Hele i ke ala o Ha‘iku ,	As he went along the path of Haiku
(audacity).	
Eia la, ‘eia	This is it
Aniani mai kona aloha	Thoughts of love floated to him
Ma luna mai o ‘Awili pua	Down from flower-twined Awilipua
Kona aloha kawalawala	Then his vagrant love
Hele i ke ala o Malae	Went on the path of shy Malae
Loaa i ko makuakane	The father found it out
Na wiliau alo Kalua-u	Then whirled and eddied the waves before
	Kalua, the pit of woe
Malaila, hole‘ole‘o na ale	There crashed the fierce breakers of
o Kumukahi	Kumukahi
Ke lii i ka la e.	Chief of the day

(Dickey, 1928, pp. 109-110)

This mele hei was reworked by hula people into “Halehale ke aloha” below, and is usually performed as a *mele ho ‘i* or exit dance to formally leave the stage. When the concluding lines, “‘O Keawe, ‘o Keawe, ‘o Keawe ‘o ‘opa,” are chanted, the dancers mimic the crouched walk of the lame Keawe by lowering the body to a squatting position and duck-walking out, alternating the feet, right and left, until they are off stage. At “A pae ‘o Kamaka‘eha i ka nalu,” remaining dancers turn back to the audience to conclude the performance with both hands extended and touching one another parallel to the floor. This concludes the performance.

Mele hula, mele ho‘i.

Halehale ke aloha i Ha‘ikū e	High above, at Ha‘ikū, stands the love one,
Aniani mai ana kona aloha	She beckons to her lover to come
Ma luna mai a‘o ‘Āwilikū	From the heights of ‘Āwilikū
Ke po‘i a ke kai a‘o Kape‘a	Down to the dashing waves of Kape‘a,
Kai ‘au‘au a ka mea aloha	Where the loved one bathes,
Kona aloha kāwalawala	Love is stirred
‘Oni ana ka manawa	And squirms me
Me he puhi ala	like the movements of an eel
Kū‘ululū e ka hulu o ka manu	A bird perches, drenched and s shivering
I ka ua pehia mai ma ka pali	As the rain pelts down the cliff
‘O Keawe, Keawe,	Keawe, Keawe,
Keawe ‘o ‘opa	Keawe the crippled one
Ne‘ene‘e nei ma kahakai	Moves slowly on the beach
‘O Kamaka‘eha ka honua nalu a.	To where the waves wash in
A pae ‘o Kamaka‘eha i ka nalu	Kamaka‘eha lands from the surf.
(K. Keaulana, personal communication and instruction, May 2002)	
(M.K. Puku‘i, translation)	

Texts such as “Halehale ke aloha” are remembered by *kumu* (sources of knowledge) and *ho ‘opa ‘a* (retainers of knowledge) and are transmitted to new

generations of knowledge keepers in formal settings such as the *hālau* (academy). Both kumu and ho‘opa‘a can be viewed as living archives as well as creators of archival space. The ho‘opa‘a represented a level of knowledge achievement in the traditional Hawaiian academy below the kumu hula. The kumu hula is considered the master of all the knowledge of his or her tradition. In performances, the ho‘opa‘a are the primary chanters of text. The word ho‘opa‘a means “to make fast” as in “solid and secure” so they are the ones to *ho‘opa‘a na‘au* (commit to memory) the many long texts for each kind of performance. The performers rely on the kumu and ho‘opa‘a for remembering and recounting the many stories and histories embodied in mele and to secure it for future generations. They also set the lyrical and rhythmic foundation of dance. So important are they that it is said, “I le‘a ka hula i ka ho‘opa‘a. *The hula is pleasing because of the drummer*” (Puku‘i, 1983, p.133).

Ceremony and the ho‘opa‘a.

To achieve the level of kumu or ho‘opa‘a, the student of hula commits to learning a series of chants and dances. This training culminates in a formal graduation called the *‘ūniki*. Puku‘i (1943) described this experience in a general way:

The performers were trained in schools set up in the district under expert masters who had themselves been graduated from schools of the hula. In these schools the pupils were advanced from grade to grade until they had gained a position to set up a school for themselves and become hula experts. Few reached this rank; most were satisfied to join a troupe of dancers and make tours through the villages (pp. 213-214).

Puku‘i goes on to describe the training process leading up to graduation as well as the graduation itself. The many chants that she records provide glimpses into the wealth of knowledge to be remembered and stored. One practice of her tradition concerned gender-specific initiating-prayers before the hula altar. She wrote, “If the hula master was a woman, a prayer was then offered to Hi‘iaka, if a man, to Kane” (1943, p. 216).

The ceremonial knowledge required for the training alone was impressive, so much so that Puku‘i does not even begin to attempt to describe the potential size and rigor of the repertoire. She does provide the chants and hula required for the graduation in early writing and it is apparent that in addition to memorizing the many ceremonial

chants, there is careful attention to symbols and meaning by the hula master. Take note of the skillful appropriation of meaning in a description of an initiation rite:

They sat quietly until the pig was cooked. All activities were in the hands of the master and the po‘opua‘a. Portions were cut from the nose, ears, feet, side, and tail of the pig and placed on ti leaves. From the sea had been brought kala seaweed, shrimps, black crab, the spawn of mullet and of ahulu fish (weke), marine mollusc (kua-pa‘a), and red and white fish. One of each was selected and placed on a plate of ti leaf with a portion of pork for each dancer. A special portion was set aside for the po‘opua‘a. The master ate the brain (lolo) that he might be ailolo, “endowed with wisdom,” in his art. The feast was spread before the altar for the dancers alone. (Puku‘i, 1943, p. 216).

In this instance, the kumu must also appreciate and understand the multiple layers of meaning in a chant called *kaona*, often referred to as the “hidden meaning.” Kaona is rarely written, so it is important that oral history is passed down correctly through the kumu from generation to generation. Kaona is known in the collective and when it is, it provides much amusement and entertainment as in the risqué and ribald “Maunaloa” a hula describing a ship but actually alludes to a wide-hipped woman. In addition, as more kumu and haumana learn Hawaiian, the archive and kaona within is better accessed, appreciated, and transmitted.

Repertoire and knowing.

As hula was the pastime of the chiefs, the greater body of danced and chanted archive concerned the chiefs and gods from whom they descended. For elders and masters like Kuluwaimaka who lived during the times of the *ali‘i*, their repertoire was vast, and the compositions they created were passed down as lived experiences. For the ho‘opa‘a of today, without those lived experiences, only those kumu who are literate in Hawaiian language and the poetic aspects of language demonstrate an ability to understand and appropriate kaona as a key to performance and to create more mele for contemporary times.

When transmission of oral histories diminished through acculturation and assimilation, the kumu relied primarily on research from secondary sources. For example,

many *haumana hula* (students of hula) in the 1970's accessed R. S. Kuykendall's (1938, 1953, 1967) trilogy of *The Hawaiian Kingdom*. History was a tightly controlled academic domain at that time, and Kuykendall, in particular, as secretary of the Hawai'i Historical Society, influenced what history of Hawai'i was published. Control changed with the rise of contemporary native historians and writers who contended against academia and wrote history from native perspectives (Trask, 1999; Kame'eleihiwa, 1992; Osorio, 2002; Silva, 2004; Beamer, 2008; Iaukea, 2008; Sai, 2008).

Transmission of genealogy and history.

My own kumu hula, Kaha'i Topolinski, a trained historian and teacher, had a great passion and affection for Queen Emma. So in my early years of training, we learned hula for Queen Emma from Kaha'i's and his wife Anne's family collection of chants. Anne is a descendant of Nancy Wahinekapu Sumner, daughter of Tahitian Princess Manai'ula Tehuiari'i and High Chief William Keolaloa Sumner (Topolinski, 1981). Topolinski's (1975) master's thesis, along with his own research of family chants, personal letters, and stories told to him by elders, is what fueled his passion. As a result of his passion for research, our knowledge and appreciation for what we were learning increased and served to attract many serious students of hula to him.

In addition, Topolinski frequently lectured on hula and specifically on the need to know the genealogies of the chiefs. Furthermore, as a member of the Church of Jesus Christ of Latter Day Saints, Kaha'i encouraged us to learn our own genealogies. In researching and learning my genealogy, I learned of my relationship to the ali'i of whom I chanted and danced to and for the land and the corporate body. The kumu, then, is also a *kahu* (custodian) of genealogies and relationships just as the kumu of old were custodians of the genealogies of the chiefs.

Kumu must also pass down the mo'olelo (history) associated with each hula as taught to them. Fortunately for the rising numbers of kumu in Hawai'i and around the world, many mele such as "Holo ana 'o Kalākaua"—a mele that speaks of King Kalākaua's mission to appropriate an amiable reciprocity treaty for Hawai'i—have recorded histories to augment the oral history. Another mele for Kalākaua, "Iā 'oe e ka lā," speaks of his historic travel around the world, the first for any monarch in the world. In addition, many mele have mo'olelo that were recorded only in Hawaiian language

newspapers and not written about by the western establishment. One example of many is “Pua ana ka makani,” which documented and confirmed Ka‘ahumanu’s journey to the island of Kaua‘i to visit King Kaumuali‘i.

Transmission and continuity through haku mele (composition).

Sometimes mo‘olelo were commemorated in mele and hula. Edith Kanaka‘ole’s “A Ka‘uku” commemorated her memory of Ka‘uku hill and the mo‘olelo told to her by her mother (Barker, 1978, interview). According to Kanaka‘ole, the pig-man, Kamapua‘a, escaped the wrath of Pele, goddess of fire. As the pig-man dug his escape, he reached the sea and transformed himself into his fish-form, the *humuhumunukunukuapua‘a*. As Pele’s lava pursued and hit the sea water, huge flumes of steam and cooled lava formed the tuft cone called Ka‘uku. Edith Kanaka‘ole’s hālau performed her “A Ka‘uku” frequently, and it is also recorded on vinyl in the award-winning “Hāku‘i Pele i Hawai‘i.” A PBS Hawai‘i interview recorded Kanaka‘ole’s story and reason for creating the chant, thereby demonstrating the *kuleana* of the kumu as *haku mele* (composer). Her daughters, Nālani and Pua Kanaka‘ole (2004), continued this family kuleana and went on to produce a notable production exhibiting the Pele family repertoire in another PBS special, “Holo Mai Pele.” This production toured Hawai‘i and abroad exposing audiences to the depth and breadth of Hawaiian knowledge.

Edith Kanaka‘ole and other *haku mele* knew the conventions of composition because they were also *mānaleo* (native speakers). Their worldview was Hawaiian. All of the appropriate conventions for haku mele are steeped in language and worldview. While language is easier to learn than cultural beliefs and attitudes, worldview is not, because worldview is embedded in culture and life experience. As a result, Edith Kanaka‘ole’s composition and choreography were facilitated by her knowledge of mo‘olelo, genealogy, and spirituality. Kanaka‘ole’s keen awareness of her kuleana as kumu and ho‘opa‘a ensured that her family legacy and heritage would be passed down from her daughters to her grandchildren and great-grandchildren. Many of her descendants have excelled in academia and have produced their own compositions that continue to perpetuate the mo‘olelo of their land and ancestors (see K. Kanahale, 1998, 2002; P.K. Kanahale, 2004, 2011; H. Kanahale-Mossman, 2012; K. Kanaka‘ole, 2003, 2006, 2009). The conventions of haku mele can be learned and taught, but the affections and passion

for perpetuating mo‘olelo through mele, can be passed on only through conscientious and willing kumu like Topolinski or Kanaka‘ole.

Mele making is essentially a spiritual endeavor. I attended a haku mele workshop sponsored by the Office of Hawaiian Affairs in the late 1980s. There was no panel and no designated instructor, but the event was well attended by kūpuna who shared their thoughts on haku mele. In fact, the entire two hours of the workshop was spent with each kupuna sharing their life story. When pressed to share the haku mele process each kupuna then proceeded to share that the key to successful haku mele was *pule* (pray). After, many attendees expressed disappointment with the workshop. They wanted a step-by-step, composition process but had missed the greater lesson. Mele making is primarily a spiritual endeavor.

Continuity and choreography.

Puku‘i (1943) also wrote that choreography was a spiritual endeavor. She described how the lead student, called the *po‘opua‘a*, accessed knowledge through spiritual means: “New steps and gestures were revealed to the po‘opua‘a at night through the medium of a dream or through the sounding of the drum in the dance hall. Then the pupils followed her dance to the new gestures” (p. 243). Likewise, an inspired kumu will employ the basic and hand and feet movements of his tradition and combined them into a choreography that best transmitted the mo‘olelo or history of that mele. However, because 21st-century audiences are less literate and conversant in Hawaiian, the unfortunate fate of some hula is that they are choreographed with audience appeal in mind. Consequently, the traditional line of hula gives way to changing rows and even alternating rows dancing in an up-down pattern. Motions are larger and more dramatic. The timing and tempo is faster. The overall effect, many times, is more gymnastic and drill squad routine-like.

A kumu or ho‘opa‘a of a tradition has a kuleana to maintain the standards of their particular tradition. Kumu hula of neo-traditions need to claim their creations as modern and non-traditional. While it is said, “‘A‘ohe pau ka ‘ike i ka hālau ho‘okahi. Not all knowledge is in any one hālau,” that *‘ike* (knowledge) will quickly pass if not perpetuated with the integrity in which it was taught.

Continuity and competition.

Some mention must be made on the role of the kumu in competitions, a popular venue for hula in modern times as celebrations of the survival of hula traditions. One of the largest such competitions, The Merrie Monarch in Hilo, is in fact held in a venue named for Edith Kanaka'ole and her hula tradition. Stillman (1996) analyzed changes in hula tradition as a result of competitions:

Having become a vital part of what is presented on a competition stage, creativity has been restored within the hula tradition itself, thereby anchoring contemporary hula practice in the realm of a truly living, rather than merely preserved, tradition. Thus, for all the controversy they can provoke from time to time, and for all the changes they have already effected in the hula tradition, hula competitions have in fact become robust celebrations of flourishing Hawaiian cultural practices (p. 375).

Indeed, creativity in hula is necessary for the continuance and vitality of hula and other aspects of culture. New mele are needed for new times. However, very few kumu have the facility to create mele as did Kanaka'ole. Inevitably, it is the kumu who must determine to ensure that his or her hula tradition is preserved, perpetuated as well as lived.

Lastly, 'ike in the hālau of today transcends the physical and spiritual aspects of the hula. Today's kumu must teach the kuleana for caring for the environment, especially those areas where plant life is gathered for the *kuahu* (altar) and for performance adornment. The hula student in traditional times was sequestered in a *pā hula* (hula enclosure). All dance attire and musical instruments were fashioned in this enclosure. Today, though, when the kumu lacks knowledge or experience, experts are often brought in to teach feather lei making, flower lei making, drum making, and the other traditional Hawaiian instruments, of which the Hawaiians were described by Sir Te Rangi Hiroa (1957/1964/2003), former director of the Bishop Museum, as being unique and innovative in the Pacific (pp. 387-416). Many hālau engage in traditional cooking

practices in preparation for the graduation, a performance, or to raise funds in order to enter into competitive events. The many activities of the “enclosure” illustrate the Hawaiian thinking in the saying, “Ma ka hana ka ‘ike. *Knowledge comes in doing.*”

The Archival Space

Ka‘aihue (2011) identified mele and mo‘okū‘auhau discourse, along with *lāhui* (nation) discourse as an anticolonial method of rewriting erasures, racism, and misrepresentations. Kaomea (2003) also voiced concern over erasures in Hawaiian culture-based curriculum delivered by kupuna saying, “Although these *kupuna* focus on presenting Hawai‘i’s children with a pleasant curriculum of benign arts and crafts, a good deal of the more disturbing or contentious aspects of Hawai‘i’s colonial history are erased or repressed, never to find their way into these elementary school classrooms” (p.19).

Certainly, hei falls easily into the “curriculum of benign arts and crafts.” Even Kaomea (2003) identified hei as one of these benign arts in her article saying, “They weave coconut fronds into the form of angelfish, sample the sweetness of different varieties of sugar cane, and learn to make string figures through the Hawaiian string game of hei (p. 19).” This assumption is true if kupuna merely presented hei as a pastime and game. What if hei was presented with mo‘olelo, mele, and mo‘okū‘auhau as I have presented previously? If anything, the erasure of these important sources of knowledge contributed to the minimization of hei and reduction of it to a mere game and pastime.

The traditional archive.

The archival space for hei survives primarily in mo‘olelo and mele—the oral and written forms. What Ka‘aihue calls *lāhui* (nation) discourse, I will refer to as the third element of this space as *mo‘okū‘auhau* (genealogy). *Lāhui* and mo‘okū‘auhau are closely linked and inseparable differing, perhaps, in aim and outcome: *lāhui* has a political aim and outcome; mo‘okū‘auhau has a socio-emotional aim and spiritual outcome. How these three preserve as well as create the archival space will be discussed further and in detail further on in this paper,

As demonstrated previously, when there are but references or fragments of a mo‘olelo or mele, fuller Hawaiian language versions can be found in the written archive (e.g., Fornander 1916). Primary sources can be found in virtual archives such what can be found on www.ulukau.org. Audio and visual medial archives also contain hei data. For

example, the Bishop Museum's archive houses a film clip of Mrs. Mary Kawena Puku'i demonstrating *Halekumuka 'aha*, and an audio clip of her chanting a mele for "Hale Pa'akai."

Another wonderful collection of hei was left by Lucy Kaheiheimālie Peabody, the founder of the modern 'Ahahui Ka'ahumanu. She pinned her figures to thick paper and penciled in the names. One such figure, *Ka laau a Kaleikini*, is referred to in Dickey (1928, p. 67) but is not illustrated. In Peabody's *Ka laau a Kaleikini* a *lā'au* a stick is placed in the string figure to represent Kaleikini's tool that saved the sweet potato crops of the people of Puna from the salty spray gushing from large blowholes. His tool was a tree (*kumu lā'au*) that the *kupua* (demigod) pulled out of the ground and plugged in each blowhole! Peabody's pinned hei figure is probably the best and only example of a string figure that incorporates a foreign object. These samples can be found in the Bishop Museum's Archive and can be viewed upon request.

Previously, Kanaka'ole's example demonstrated how mo'olelo can inspire a mele and a hula. Stillman alluded to this "creative" process in hula and the Merrie Monarch festival. Kumu hula use mo'olelo as sources for new mele and hence, new hula. This process explains how the hei archive can be expanded.

Erasure.

As an example, Dickey's short story fragment for *Kipuka Hele La Maui*, a hei figure showing the lasso Māui used to snare the sun, led to a search of a Hawaiian language version of the well-known story of Māui. English language versions too often have erasures of important Hawaiian aspects with translation, so a Hawaiian language version is critical. For example, Beckwith (1970) wrote this of Māui's feat:

Maui's next feat is stopping the sun from moving so fast. Hina sends him to a big wiliwili tree where he finds his old blind grandmother cooking bananas and steals them one by one until she recognizes him and agrees to help him. He sits by the trunk of the tree and lassoes the sun's rays as the sun comes up. The sun pleads for life and agrees that the days shall be long in summer and short during the six winter months (p. 230).

Note that the name of Maui's grandmother is erased. She is reduced to an "old blind grandmother." Her name is given plainly, however, in a mo'olelo recorded by Pua'aloa in

Ka Nupepa Kuokoa. Her kupuna is named Wiliwilipūha.⁴ Pua‘aloa’s version contained some beautiful Hawaiian idioms and phrases seldom heard, such as “Na wai ke kupu ‘o ‘oe? Whose scion are you?” This phrase was so different from what language students learn—“O wai kou inoa? What is your name?”—that I wondered how was this erased from curriculum and instruction. Because of this loss, I incorporated the original phrasing into a mele for students of the language to learn while learning the story of Māui. Here is the new mele for the archive based on mo‘olelo :

Na wai ke kupu ‘o ‘oe?	Whose scion are you?
Nāu e Wiliwilipūhā	Yours, Wiliwilipūhā
Na ko‘u makuahine ‘o Hina	Also from my mother, Hina,
i ha‘awi ia‘u i nā ‘aha	the one who gave me the ropes
Nā ‘aha he ‘umikūmālima	Fifteen of them
Na‘u ka ‘umikūmāono	Mine is the sixteenth [from you]
A me ka pōhaku nunui	And the large stone weight
A loa‘a ia‘u ka ‘ahele,	I possess the snare
Kīpuka hele lā a Māui.	The lasso of Māui

Mo‘olelo such as Puaaloa’s “Ka moololo o Maui” add to lāhui/mo‘okū‘auhau discourse by putting back and asserting what was erased, in this case, the name of Māui’s kupuna, Wiliwilipūhā, the kupuna from whom he receives knowledge and wisdom to outwit the powerful sun. I consider this lāhui/mo‘okū‘auhau discourse because publishers have always erased the name of the grandmother because it is too long and readers of English would have a “difficult time pronouncing all those long Hawaiian names.” Why does the length of a name matter? Names are important in mo‘olelo because they (a) show relationships and mo‘okū‘auhau, (b) assert lāhui identity through mo‘okū‘auhau, and (c) affirm lāhui values. Here, Wiliwilipūhā is revered and valued as a source of knowledge.

These very subtle erasures have certainly taken their toll on the mele and mo‘olelo of hei. In addition to the pressures of colonialism and racism on Hawaiian society, there is the associated pressure of modernity. Even Dickey (1928) noted that “Not only does the modern Hawaiian have more to interest him, but he, and particularly his

⁴ Kamakau (1991, p. 135) gives Hinamahuia as a name for his paternal grandmother.

child in school, does not know and understand the allusions that were the main attraction of the string figure (p. 12).” So how does one create an archival space in the face of modernity?

Virtual archival spaces.

Already, string figures can be learned over the Internet. YouTube has many downloaded clips made by string figure aficionados. Some of these YouTubers perform string figures without knowing that they are Hawaiian in origin. While this avenue lacks the intimacy in which *hei* was shared and experienced, it provides an international venue for learning and teaching. Moreover, using the Internet provides an opportunity to redeem and reclaim traditional knowledge of *hei* from modernity while using modernity to reassert indigenous knowledge. For example, the renowned Māori exponent of *whai* (*hei*), Toby Rikihana was videotaped performing *whai*, thereby leaving a living legacy for his people. The video can be viewed at “Ngā Mahi a te Rēhia,” Ngā Toi Online.⁵

I recently found a blog spot on Google called “Te Wawewawe a Māui,” so named for Māui, believed to be the originator of *whai*. The blogger shows his young sons demonstrating various *whai* at <http://maori-string-figures.blogspot.com/p/about.html>. The video demonstrates continuity and perpetuation of knowledge. The Internet is yet an archival space to be developed by Hawaiians.

Lastly, in the face of modernity, how can the archive of *hei* and the practice of *hei* be expanded? As *kumu* are the transmitters of knowledge in hula and other traditions, educating and sharing *hei* knowledge with *kumu hula* and *kumu kula* (school teachers) appears to be an effective method of revitalizing *hei*. One *kumu* can affect twenty students. One student may rise to be a *ho‘opa‘a* and become a *kumu*, thereby perpetuating this cycle. *Kumu* and *ho‘opa‘a* are life apprentices and oftentimes become responsible stewards of our Hawaiian culture and history. If they are steeped in culture and worldview and conversant and literate in Hawaiian, they are able to perpetuate tradition as well as create and expand upon the archive through traditional skill and wisdom. In doing so, they then fulfill *kuleana* to preserve and perpetuate culture through *mo‘olelo*, *mele*, and *mo‘okū‘auhau* as did Puku‘i, Nāku‘ina and scores of *kūpuna* who had the

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http://www.tki.org.nz/r/arts/ngatoi/nga_mahi/resources/classroom/mahi_whai_toby_e.php

foresight to do so. Like Kanaka‘ole, they generate new mele and mo‘olelo to expand the archive.

References

- Averkiewa, J., & Sherman, M. A. (1992). Kwatkiutl string figures. *Anthropological Papers of the American Museum of Natural History*, 71.
- Bacchilega, C. (2007). *Legendary Hawai'i and the politics of place: Tradition, translation, and tourism*. Philadelphia, PA: University of Pennsylvania Press.
- Barker, B. (1978). Interview with Edith Kanaka'ole. *Pau Hana Years*. Honolulu, HI: Public Broadcasting System (PBS) Hawai'i.
- Beamer, B. (2008). *Na wai ka mana? 'Oiwi agency and European imperialism in the Hawaiian Kingdom*. (Ph.D. dissertation, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawaii.(Publication No. AAT 3326432)
- Beckwith, M. (1970). *Hawaiian mythology*. Honolulu, HI: University of Hawai'i Press.
- Bolton, H. C. (Jan.-Mar., 1891) Some Hawaiian Pastimes. In *The Journal of American Folklore*, 4 (12), 4, pp. 21-26. Retrieved from <http://www.jstor.org/stable/532928> on December 18, 2011.
- Culin, S. (April, 1899) Hawaiian Games. *American Anthropologist*, New Series, 1 (2), pp. 201-247. Retrieved from Stable URL: <http://www.jstor.org/stable/658394>
- Dickey, L. A. (1928). *String figures from Hawaii*. Honolulu, HI: Bishop Museum.
- Emerson, J.S. (1924). Hawaiian string games. *Folklore Publications of Vassar College*, 5, Poughkeepsie, NY: Vassar College.
- Fornander, A. (1916). *Collection of Hawaiian antiquities and folklore*, 4 (1 & 3). Honolulu, HI: Bishop Museum Press, p. 32 and pp. 283-289.
- Fornander, A. (1918). *Collection of Hawaiian antiquities and folklore*, 5 (1-3). Honolulu, HI: Bishop Museum Press, p. 32, pp. 422-423, and p. 600.
- Fornander, A. (1919-1920). *Fornander collection of Hawaiian antiquities and folklore*, 6 (1). Honolulu, HI: Bishop Museum Press, pages 212-213.
- Haddon, K. (1930). *Artists in string*. New York, NY: AMS Press.
- Handy, E.S., & Puku'i, M. K. (1993). *The Polynesian Family System in Ka'ū, Hawai'i*. Tokyo, Japan: Tuttle Publishing.

- Iaukea, S. (2008). *E pa 'a 'oukou: Holding and remembering Hawaiian understandings of place and politics*. (Ph.D. dissertation, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawaii.(Publication No. AAT 3347643).
- Jayne, C.F. (1962). *String figures and how to make them*. New York, NY: Dover.
- Ka'aihue, M. (2011). *I ka 'olelo no ke ola, i ka 'olelo no make: Deconstructing Hawaiian children's literature*. (Ph.D. dissertation, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawaii.(Publication No. AAT 3415875).
- Kamakau, S. (1992). *Ruling chiefs of Hawai'i* (Rev. ed.). Honolulu, HI: The Kamehameha Schools Press.
- Kanahele, K. (1998). *Kekuhi* [CD] Honolulu, HI: Panini.
- Kanahele, K. (1998). *Hahani mai* [CD] Honolulu, HI: Punahele Productions.
- Kanahele, K. (2002). *Honey boy* [CD] Honolulu, HI: Mountain Apple Records.
- Kanahele-Mossman, H. (2012). *Intersection of opposing pedagogical frameworks: Native Hawaiian ancestral stories and scientific inquiry in a high school science class*. (Ph.D. dissertation, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawaii. (Publication No. AAT 3475713).
- Kanahele, P. K. (2004). *Holo mai Pele*. Honolulu, HI: 'Ai Pōhaku Press.
- Kanahele, P. K. (2011). *Ka honua ola: 'Eli'eli kau mai. The living earth: Descend, deepen the revelation*. Honolulu, HI: Kamehameha Schools Press.
- Kanaka'ole, E. (1978). *A Ka 'uku*. Presented at a workshop for the Hawai'i delegation to the South Pacific Festival of Arts, Papua, New Guinea, March 1980 by N. Kanaka'ole and P. Kanahele.
- Kanaka'ole, K. (2003). *Ha 'i Kupuna*. Honolulu, HI: Donald P. "Flip" McDiarmid III.
- Kanaka'ole, K. (2006). *Welo*. Honolulu, HI: Mountain Apple Records.
- Kanaka'ole, K. (2009). *Kaumakaiwa*. Honolulu, HI: Mountain Apple Records.
- Kaomea, J. (Mar., 2003). Reading erasures and making the familiar strange: Defamiliarizing methods for research in formerly colonized and historically oppressed communities in *Educational Researcher* , 32 (2), pp. 14-25. Retrieved from Article Stable URL: <http://www.jstor.org/stable/3700052>.

- Kaume‘eleihiwa, L. (1992). *Native lands and foreign desires: Pehea la e pono ai? How shall we live in harmony?* Honolulu: Bishop Museum Press.
- Kuykendall, R. (1938) *The Hawaiian kingdom: 1778-1854: foundation and transformation*. Honolulu, HI: University of Hawaii Press.
- Kuykendall, R.(1953). *The Hawaiian kingdom: 1854-1874: Twenty critical years*. Honolulu, HI: University of Hawaii Press, 1953.
- Kuykendall, R. (1967) *The Hawaiian Kingdom: 1874-1893: the Kalakaua dynasty*, Honolulu, HI: University of Hawaii.
- Osorio, J. K. (2002). *Dismembering lāhui: A history of the Hawaiian nation to 1887*. Honolulu: University of Hawai‘i Press.
- Poepoe, J. (1908, May 8). Ka moololo kaa o Hiiakaikapoliopole. *Ka Nupepa Homerula*.
- Puku‘i, M.K. & Green, L. (1995) *Folktales of Hawai‘i: He mau ka‘ao Hawai‘i*. Honolulu, HI: Bishop Museum Press.
- Puku‘i, M. (1983). *‘Ōlelo no ‘eau: Hawaiian proverbs and poetical sayings*. Honolulu, HI: Bishop Museum Press.
- Puku‘i, M. (1960). Naughty ‘Elepaio. In *Tales of the menehune* (Rev. ed.). Honolulu, HI: Kamehameha Schools Press
- Puku‘i, M. (July, 1943). Games of my Hawaiian childhood. In *Folklore Quarterly*, 2(3), pp. 205-220. Published by: Western States Folklore Society. Retrieved from Stable URL: <http://www.jstor.org>.
- Puku‘i, M. K. (1936). Ancient hulas of Kaua‘i. In *The Garden Island*, Feb. 18, 25; March 3, 10, 17, 24
- Rice, W. H. (1923). Hawaiian legends. In *Bernice Pauahi Bishop Museum, Bulletin 3*. Honolulu, HI: Bishop Museum.
- Sai, D.(2008). *The American occupation of the Hawaiian kingdom: Beginning the transition from occupied to restored state*. (Ph.D. dissertation, University of Hawai‘i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawaii.(Publication No. AAT 3347669).
- Silva, N.K. (2004). *Aloha betrayed: Native Hawaiian resistance to American colonialism*. Durham,NC: Duke University Press

- Stillman, A.K. (1996). Hawaiian hula competitions: Event, repertoire, performance, tradition. In *The Journal of American Folklore*, 109 (434), pp. 357-380. Retrieved from Stable URL: <http://www.jstor.org/stable/541181>.
- Tava, R., & Keale, M. (1989). *Niihau: The traditions of an Hawaiian island*. Honolulu, HI: Mutual Publishing Company.
- Te Rangi Hiroa. (1957/1964/2003). *Arts and crafts of Hawai‘i*, Bernice P. Bishop Museum Special Publication 45. Honolulu, HI: Bishop Museum Press.
- Topolinski, J. R. K (1981). Nancy Sumner, Hawaiian Courtlady. In *Hawaiian Journal of History* (Hawaiian Historical Society) 15: 50–58. Retrieved from <http://hdl.handle.net/10524/285>.
- Topolinski, J. R. K (1975). *Nancy Sumner: A part-Hawaiian high chiefess, 1839-1895*. (Unpublished master’s theses). Honolulu, HI: University of Hawai‘i at Mānoa.
- Trask, H. K. (1999). *From a native daughter: Colonialism & sovereignty in Hawai‘i*. Honolulu: University of Hawai‘i Press.
- Wichman, F. B. (1985). *Kaua‘i tales*. Honolulu, HI: Bamboo Ridge Press.
- Wichman, F. B. (1987). *More Kaua‘i tales*. Honolulu, HI: Bamboo Ridge Press.
- Wichman, F. B. (1998). *Kaua‘i: Ancient place-names and their stories*. Honolulu: University of Hawai‘i Press.
- Wong, A. (2011). *Pukaiki kula maniania no niihau, na ka niihau*. (Ph.D. dissertation, University of Hawai‘i at Manoa). Retrieved from Dissertations & Theses @ University of Hawaii.(Publication No. AAT 3448656).

Article 3

Indigenous Learning and Hei

Eia ke Kaula: Here is the String

E pō e pō ē kau mai nā hōkū Night, night, the stars are placed
A ao mai ka pō, helele‘i iho nō. And night becomes day, as stars fall
(A. Keawe, personal communication and instruction, November 1974)

This chant accompanied one of the first hei (string figure) I learned from ‘Āina Keawe, a respected *kupuna* (elder) in the Hawaiian community. At the conclusion of the chant, when “night becomes day,” I triggered lower lateral strings causing the figure to disappear and the stars “fall.” I use this story as an opening chant for this section, performed with the hope that what is *pō* (night, darkness, obscured) concerning the study and teaching of hei becomes *ao* (day, light, known).

Learning traditional hei figures has been an exciting process of discovery for me over the decades. My “daylight” experience in hei began when I learned “Eia ke Kaula,” a chant for the making of two-eyes from Mrs. Sarah Quick, my first Hawaiian language *kumu* (teacher) at The Kamehameha Schools. Then, Day became lighter when, as a teenager, I was privileged to learn three more traditional hei from ‘Āina Keawe. My learning from ‘Āina Keawe occurred because Mrs. Gussie Bento, a very kind and caring administrative secretary at the school I attended, took an interest in Hawaiian youth and enrolled several Kamehameha High School students as members in the Queen Emma Hawaiian Civic Club, an organization that offered many cultural workshops. ‘Āina Keawe taught one of those workshops.

The workshops were provided by the Hawaiiana Division of the City and County of Honolulu Parks and Recreation. ‘Āina Keawe taught a workshop on hei. She was a patient and kind *kupuna* who taught us without paper and pencil. She said that this is how she learned and that is how we should learn—by observing and doing. In fact, we had to practice the figures over and over to memorize the sequence of movements.

After the workshop, she encouraged the participants to look for Dickey’s *String Figures of Hawai‘i* in case we forgot what was taught orally to us. We would also learn other figures if we were interested. I purchased the book at the Bishop Museum’s shop

for \$10, a fortune in the 1970s, and learned a few more hei. More often than not, Dickey's instructions were too complicated, and I found myself back in pō. However, I was reminded of and shown other ways of learning and researching to recapture and remember the learn-by-doing teaching of kupuna such as 'Āina Keawe.

I look back to the ways of learning of my ancestors and refer to this as indigenous research going forward. Indigenous research is quite exciting because it affirms the teachings of our *kūpuna* (elders,) especially spiritual learning. Spiritual learning is what sets indigenous research apart from quantitative as well as qualitative research methodologies. For indigenous peoples, spiritual knowing is a natural part of the methodology of the native researcher. Cajete (2000) wrote that dreams and visions are some of the “methodological elements and tools of Native science that have traditionally facilitated such learning” (p. 67). Ermine (1995/1999) also wrote about this kind of spiritual knowing. In addition, Castellano (2000) identified revelation, dreams, visions, cellular memory and intuition as sources of knowledge (p. 24). Lastly, I was very excited to read Kovach (2009), where she addressed the issue of direct instruction from ancestors (pp. 57, 58, 117). After reading the works of these respected native scholars, I went back to research what my own people wrote about spiritual learning.

I turned to *mo'olelo* (story) for inspiration and cultural clues on spiritual learning. One of those clues is found in the dream of Moi from the story of Kana, a person who was born as a piece of rope and grew to an enormous length. In research, dreams are important sources of information because they connect man to spirit. This is what attracted me to the dream of Moi.

Ancestral Threads and Connections

The dream of Moi.

He kanaka loa, he kanaka poko	A long man, a short man
He uiaahe alaneo	A stunted youth, a male god
a na maka pa i ka lani	The eyes touched the heaven
Malu ka honua.	The earth was overshadowed.
(Fornander, 1916, pp. 442-443)	

The prophet Moi received the dream visitation described above on Pō Kāne, one of the sacred nights of the Hawaiian lunar calendar when departed ancestors reconnected to the world of the living and were known to march in processions along familiar routes called *huaka i Pō Kāne*. Dream visitation was described by Puku'i (1972b):

The *hō'ike na ka pō*, the revelatory dream, nearly always brought a message from the 'aumākua. 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 'aumākua revealed matters close and pertinent to the waking life of the dreamer and his family. (p. 172)

According to Kamakau (1870), the 'aumākua or ancestor gods that Puku'i spoke of dwelled in *Ao 'Aumākua*ⁱ a realm accessed by the spirits of the deceased via the tree of Leilono and *leina ka 'uhane*ⁱⁱ. Humans did not access these realms, for we belonged in the *Ao Kanaka*.

Kamakau also described the many ways in which a *kanaka* or native person could communicate directly with the 'aumākua such as through prayer, spirit travel, and *noho akua*, a sort of induced trance-like state where the spirit of the god comes to *noho* (dwell) within the supplicant. Today, people claim to see the ghost of King Lunalilo or the ghost of Queen Lili'uokalani; however, ghost sightings and ghost communication are not the traditional means of communicating with the ancestors. The ancestors communicated through *hō'ike na ka pō*, the revelatory dream.

The 'aumākua communicated frequently through dreams. Special evidence of ancestral bonds and connection to them was revealed through names received through

dreams. These names embodied a person's identity and *mana* (spiritual power) and were so sacred that the recipient needed to be sensitive to the dream and obey the instructions, such as the naming of an unborn child. Puku'i (1927a, p. 95) described three types of spirit-given names: *inoa pō*, *inoa hō 'ailona*, and *inoa 'ūlāleo*. In *inoa pō*, the 'aumākua visited the family member with a specific name for the chosen one. In *inoa hō 'ailona*, a mystic sign or omen was given, and in *inoa 'ūlāleo*, an audible voice gave the family member the name (*inoa*).

In my research of family genealogy, I have experienced the gift of knowledge from 'aumākua through dreams and through 'ūlāleo (spirit voice). I will describe dream learning further on. One 'ūlāleo experience occurred when I was searching census data from the mid-1800s at the Hawai'i State Archives, on the grounds of the 'Iolani Palace, the former royal residence of our beloved Queen Lili'uokalani. After an exhaustive search for a particular ancestor, I took a break to pay the parking meter. As I passed the card catalogue on the way out, a voice said, "Nānā mai. (*Look Here*)."

My hand reached toward the same file I had already searched many times that day. The library card catalogue file was very long so I braced the bottom of the tray with my left hand as I pulled it out with my right hand, my thumb bracing the front. My right forefinger slipped between a stack of cards in the file to maintain the balance of the elongated "M" file. I then took the file to a research table and, to my amazement, the very name of the *kupuna kualua* (great-great grandfather) was there where my right finger had slipped. There he was, Ka Īnana Makanui. I learned to acknowledge this kind of spiritual assistance. This is an example of instruction through 'ūlāleo.

When I share this story with professional and learned colleagues, they are amused and attribute my event to chance occurrence. Some of my academic friends scoff at knowledge gained through spiritual means. One authority said that spiritual events cannot be validated and replicated. However, the validation comes with the knowledge received. In my example, I needed the name of this *kupuna kualua* and received it.

On the other hand, when I share this story with Hawaiians especially *kūpuna*, they almost always attribute the spiritual assistance to *kūpuna* who have long passed and who dwell behind *pō*. To many Hawaiians, knowledge gained from *kūpuna* is precious and if received spiritually from the 'aumākua, is even more credible and valuable.

This tension between Western rationalism and Native Hawaiian knowledge was noted by Benham (1998) in a table that showed the difference between Native Hawaiian knowledge and the Western view where “Knowledge is measurable in some fashion or can be rationalized by some set of objective assumptions that are not linked to mythical origins” (p. 33). In addition to Benham, Puku‘i (1972) and Kame‘eleihiwa (1998) commented on spiritual learning and instruction and affirmed its validity. They extended what Kamakau (1870), ‘I‘i (1955), and Malo (1951) recorded on Hawaiian spiritual beliefs. These native men and women provide the authority for this research.

My own experiences as an educator and as a researcher have demonstrated that spiritual instruction from ‘aumākua has, indeed, produced tangible results that can be measured, documented, quantified, and explained. Spiritual instruction played a critical role in my research and study of some key *hei* figures I was not privy to learn from kūpuna. The first *hei* figure I learned through spiritual instruction was *Ku e Ho‘opi‘o ka La* or *Kuhaupio* (Dickey, 1928, p. 15). Another was *Lonomuku*, which tells of the Hawaiian Lady in the Moon, and there are others.

For many Hawaiian researchers like me, alienation from our ancestral lands and resources separated us from living our culture. Many of us did not have the joy and privilege of having our Hawaiian-speaking grandparents in our lives and were further distanced from accessing cultural wisdom. However, Hawaiian ancestral knowledge can be accessed through spiritual means. I have found that knowing my genealogy, my native language, and my culture has better positioned me to receive spiritual learning. This cultural knowledge enabled me as the researcher to read mo‘olelo and understand and appreciate the story differently. Another example from the mo‘olelo of Kana tells of how he was born as a piece of string. I’ve read this story many times and always skipped over the prophecy until I was drawn to the grandmother’s prophecy in my research.

Mo‘olelo of a Useless Piece of String

A grandmother’s prophecy.

He pauku kaula o Kana o ka hanau ana, aohe kino maoli.

Kana was born as a piece of rope, and he had no human form.

(Fornander, 1916, p. 436)

Thinking Kana was nothing but a useless piece of string, his father threw the *kaula* or string into a refuse pile. Uli the grandmother knew otherwise and retrieved and cared for it on Hawai‘i island. The piece of string grew to an enormous length and Uli had a house built for it that stretched from the mountain to the sea. The rope grew and was called Kana.

Due to her incredible beauty, Kana’s mother, Hina, was abducted by a chief of the island of Moloka‘i and sequestered on a hill that was able to lift out of the waters on the back of a great turtle. Nīheu, a strong and stout younger brother, called upon Kana to help him rescue their mother. They build a fleet of canoes to go to Moloka‘i, but none of them could carry the weight of the rope-like giant so Kana sought the advice of his grandmother, Uli. She remembered an ancient canoe, Kamā‘eli‘eli, and began to chant it back into existence from the forested paradise of Paliuli. She also foretold the outcome of the rescue operation. The following chant by Kana’s grandmother, Uli, predicted Kana’s victory:

O Kanaloa i luna o ka pola e hei ana i ka heana.

Kanaloa is on the platform playing cat’s cradle with the dead.

(Fornander, 1916, pp. 440-441)

Nīheu is first to breach the fortress with his strength and war club. He grabbed hold of Hina but his sacred and empowering hair was snipped off by birds and he lost grip of his mother. The Turtle fortress rose further upwards, but it is Kana who stretched up to take hold of his mother all the while manipulating his string body to parry rock projectiles hurled by the Moloka‘i captors. Kana ensnared the flippers of the great amphibian with loops and knots and broke them off thus lowering the fortress back down to earth. The Moloka‘i chief and army was defeated and Hina rescued.

Thomas Thrum translated Uli’s chant for Fornander and is one of a few references in mo‘olelo of hei that he translated as “cat’s cradle.” Dickey (1928), however, believed

that Kana was not playing hei and that Uli's prophecy simply referred to his rope body "stretching clear to the bow [of the canoe]" (p. 10). Dickey, however, did not appear to understand the *kaona* or deeper meaning in the Hawaiian. He viewed hei as simple amusement:

These string figure chants, perhaps, were the literature of the common folk who from lack of memory could not enjoy the highest form of literature. Many Hawaiians have said to me that their grandparents would sit by the hour repeating these little chants as they made the figures. The underlying ideas of many of the chants are erotic. The references to mythology are not reverent, being made only for amusement. (Dickey, 1928, p. 11)

The story of Kana, however, showed that hei was more than casual amusement. Uli's chant predicted Kana's victory over the Moloka'i chief because she envisioned his elongated rope body performing as a hei figure (*e hei ana i ka heana*) as it (a) stretched upwards, (b) parried projectiles, (c) ripped off the flippers of the great turtle with loops and knots, and (d) toyed with the *heana* (corpses) of those he battled with within his hei body.

Kana was capable of transforming his body into a spider's web (Beckwith, 1970, p. 466) hence demonstrating his ability to transform into intricate hei figures. Besides Kana's rope and spider web forms, he could also take the form of a human, the convulvus vine, as well as the banana. It should be noted here that the stringy fiber from the outer skin of the banana could be used as *kaula* (string) as two long fibers could be quickly rolled into a simple twine to be used for hei making.

Indeed, Kana was not a useless piece of string after all. Similarly, the study and learning of hei is not useless or trivial. Hei is a storytelling tradition that connects us to our ancestors and to our Hawaiian heritage. Often, these *mo'olelo* had difficult lessons within them—for the performer as well as the audience.

Strings that Binds and Loosens: Difficult lessons.

Here is a retelling of the story of Hina also known as Lonomuku.

Ulupa‘upa‘u was her homeland. This is the Ulupa‘upa‘u of Kahiki. ‘Aikanaka was the chief of Hāna, a child of Makali‘i of the stars. Hāna was the land of her betrothed.

Hina and ‘Aikanaka had a son, Puna. He is taken away and raised as a sacred chief. Many other children are born. Because of their high *kapu* (sacred status) Hina deposited their refuse and waste many miles away from their dwelling which tired her greatly.

‘Aikanaka ignored Hina for long periods of time disappearing into the starlight to indulge in the drinking of ‘awa (kava). He occasionally returned in a drunken stupor and abused Hina. Hina was abused with words. Hina was abused by the rough manly hands of ‘Aikanaka.

After a while, Hina’s sons mimicked their father’s overbearing and bossy behavior and began to order their mother around, “Give me that,” “Give me this,” “Go there,” “Come here.” In despair Hina called upon the rainbow to take her to the sun, but her neck was burnt by the extreme heat so she returned to Earth. Hina endured the abuse until she could take no more. ‘Aikena (fed up) is what we say. ‘Aikena! (You, the audience might say this too)

“Ānuenue! Ānuenue! Take me to the stars,” Hina called to the rainbow who appeared and took her by night to the stars. But Hina did not know that the stars were ‘Aikanaka’s family. They laughed and ridiculed the beautiful chiefess so she returned to earth dejected.

Again, Hina was ignored and abused. She could no longer endure the hard work and abuse especially the cruel verbal tirades of ‘Aikanaka. Auē! (the audience might join in saying this expression akin to Alas!)

“Ānuenue! Ānuenue! Take me to the moon!” Hina cried (the audience might cry also). Rainbow appeared and Hina mounted the space-traveller with her children, but they began to cry. To protect them from ‘Aikanaka’s wrath and her discovery, she changed them into gourds and

stuffed them into a *kōkō* (a carrying net) then slung this net over her shoulder.

Too late. ‘Aikanaka woke from a drunken stupor to see his wife’s escape. In remorse, he called to her to stay but she refused. ‘Aikanaka reached up and took hold of her leg in a last attempt to restrain her. Some say, oh listeners, that he yanked her foot off but others say that Hina loosened her foot free as does a trapped *mo‘o* (lizard). You *mo‘o* people, I know, would choose the latter.

Thus, Hina escaped to the moon. She is still seen limping about on one foot every thirty paces or so waxing and waning with strength. Her gourd children are with her still looking down upon us as circular crater-like beings.

To commemorate this event, our ancestors called her Lonomuku, or Maimed Lono.

For some inexplicable reason, Hina’s *muli loa* or youngest child, Hema, was left behind on earth. He grew in strength and became the progenitor of all the chiefs of Maui and Hawai‘i islands. Her oldest child, Puna, became the progenitor of all the chiefs of O‘ahu and Kaua‘i islands. Thus, the string figure we make for *Lonomuku* is a genealogical reminder and a mnemonic: the longer side of the figure represents Puna, the *kaikua‘ana* or older sibling line of chiefs, and, the shorter side represents Hema, the *kaikaina* or younger sibling line of chiefs.

I had difficulty deciphering the complex written instructions in Dickey (1928) for *Lonomuku*. Due to its asymmetry, the motions for learning *Lonomuku* were complicated and literally full of twists and turns. However, after many dismal attempts, I remembered the kūpuna who counseled me to pray for guidance, so I chanted “E Hō mai i ka ‘Ike,” a prayer chant I was reminded of and had learned from Edith Kanaka‘ole, as esteemed elder, composer, and teacher. I went to sleep. That night I dreamt a simple dream. I dreamt of a big, bright moon and a lady draped in white *kīhei* (shawl) carefully and gingerly stepping over tree roots and over rocks in the moonlight. That was all. The next day, I sat down to decipher Dickey’s written directions to *Lonomuku* again but soon found myself ignoring his instructions altogether. I subconsciously allowed my fingers to move and manipulate the string naturally and freely as if they had a memory of their own.

It was if my fingers were mimicking the steps of the moon lady over the roots and rocks but had not realized it at the time.

My muscle memory of *Lonomuku* was like the cellular memory addressed by Wilson (2008) as he remembered a conversation with Lakota elder, Lionel Kinunwa:

Lionel said, “We have memories. Our ancestral memories are in our blood, they’re in our muscles, they’re in our bones, they’re in our hair.” He said that many of us do not pay attention to these memories because we are too busy paying attention to what’s going on in the modern world. We don’t pay attention to our history memory. This is why when we hear the drum, our spirit is moved. These memories come out of the molecular structure of our being. This is also why when you hear someone speaking your language, your molecular structure picks up those vibrations, because each language has its own peculiar patterns, and you feel good that somebody is speaking your language (in E. Steinhauer, 2002, p. 5).

Thus, spiritual learning caused me to pay attention to the memories in my fingers. I attribute the memories possessed within my hands and fingers to my Kekaula (The string, the prophet) ancestors. In fact, I have come to know the lady who visited me in my hō‘ike na ka pō as my *kumupa‘a* (spiritual guide) and whom I affectionately call Kaluahine (The Old Esteemed Woman), which is also an ancestral name. My dream of Kaluahine stepping over roots and rocks were instructions for how my fingers should move over and under string loops. There are also spiritual lessons that I cannot divulge publicly. However, I can say that one lesson was that spiritual instruction is a valid form of research for me as a Hawaiian. I believe other indigenous researchers would agree.

So why would we want to remember this painful story of *Lonomuku*? I believe that in remembering the story of *Lonomuku* through hei and chant, we are reminded of an age-old but unresolved problem—spouse abuse. We are forced to remember the story so that we do not repeat the “grave errors” of an uncaring and evil husband. We are reminded of this story when we look upon the moon and see Lono’s inanimate children, or when we pause to plant or fish according to the phases of the moon. In our yearnings for the past, we not only remember through *Lonomuku*, but we also transfigure that

painful past through a collective memory. We remember because we are the living descendants of Hina, and of Puna and Hema from whom many of us descend. The legacy within the string figures reminds us that even though these ancestors have moved to another place, we cannot let go of our ways of knowing. When we do, we lose track of our cultural identity. *Lonomuku*, therefore, has many lessons.

O Honuaula, O Kuawalu!	O, Honuaula, O Kuawalu!
O ke alai a Kaupo!	O, the hindrance to enjoyment!
Pale Kaupo!	O, the obstacle to enjoyment!
Ku mai la o Lonomuku.	There rose Lonomuku.
O Lonomuku kai luna, kai lalo!	O, Lonomuku, sky above, sea Below,
Kai ke ka'e ka ma'i o ka wahine ohe la, ohe la!	O, the woman's body, ascending, ascending!
Apa, apa a hewa ana mākou	We have done great evil.
He iwi no kakou a mea la, 'ohe la	A bone of us ascending.

(Dickey, 1928, p. 55)

Mo'olelo in a Loop of a String

In my performance of *Ku e Ho'opi'o ka La*, each place name conjured up for me an image of an elder and the spirit and essence left by the kūpuna in the districts of Hawai'i island—Kona, Ka'ū, Puna, Hilo, Hāmākua, and Kohala. The loop of string used to form each figure becomes the vehicle to reconnect to those places and to the people and events of those places. *Ku e Ho'opi'o ka La* tells a story of love, separation, and reconciliation of a man and woman. It is both a local and universal story. It tells the story of the cycle of life and the loop of string is a metaphor for that cycle.

Dickey (1928) wrote down the 21 steps for performing *Kūhau Pi‘o Ka Lā*, and in my multiple attempts to follow his instructions, I’ve always failed, never passing the first three steps:

1. Position 1
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.

Compare the first three steps below with Dickey’s. Just as with *Lonomuku*, I chanted “E hōmai ka ‘ike” and again, my kumupa‘a visited me in hō‘ike na ka pō and gifted me with the following initiating steps.

1. Loop over thumbs and index fingers (I have named this ‘Āpana, Position 4).
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.

There are probably scientific explanations for how I created the beginning moves, but spiritual learning through hei is what my ancestors left to us to help connect back to them. In respecting and receiving spiritual learning, I honor them.

Spiritual guidance and instruction is now the keystone in my indigenous research methodology. The other elements of this methodology were described previously as mo‘olelo, mele, and mo‘okū‘auhau. What may not have been explicit is that all of these key elements necessitate knowledge and proficiency in ‘ōlelo Hawai‘i, the Hawaiian language. Pereira (2009) wrote, “The Hawaiian language is *the* receptacle of ethnic Hawaiian knowledge. It is in the language that the vitality of all cultural practices is truly

realized” (p. 25). Thus, in order to access the knowledge of my ancestors, I’ve had to learn my own language.

In researching *Kūhau Pi‘o Ka Lā*, I’ve found that deciphering the symbols of the figure was made easier because of this knowledge of the Hawaiian language. For example, after developing the first three steps of the figure and correlating the chant to the movements of each resulting figure, I began to *understand* what each figure was, such as the rain clouds of Hilo, the narrow cliffs of Hāmākua, or the lame Kāne‘o‘opa. (I will discuss these images in the article on the mnemonics of hei.) In short, key words appear throughout the chant to assist the hei figure-maker in the recounting of mo‘olelo. Thus it *is* in the language that the “vitality of all cultural practices is truly realized” (Perreira, 2007, p. 25).

The hei figure motion and actions also assist the viewer and learner to understand and appreciate the story being told. These motions and actions, the mechanics of hei, can also be understood through an understanding of *kuhikuhina* and *ki‘ina*: Hawaiian behavior and kinesthesia, the sensing of muscular movement. This concept was fully explained in Article 2. Whorf (1941) spoke frequently on this relation of linguistic habit and behavior to language and how kinesthesia manifests itself in culture (p. 212). Whorf in particular pointed to how lexically based patterns influence individual behavior and how the “grammatically based patterns influence cultural belief and behavioral norms.”

‘O Kāne‘o‘opa e ne‘e ana	Kāne the lame one creeps
ma ka hu‘ahu‘a	along the sea froth
me ka ‘ala‘ala pā‘ina pōhaku	With nothing but squid sacs
	bursting upon rocks

When one chants the word *ne‘e* (in the first line), which means “to move,” the hei figure moves apart signaling the end of the figure and symbolically the end of the cycle. Who is Kāne‘o‘opa, the lame man creeping along at the sea froth? He is a man. He is a god. He seeks entry into the Ao ‘Aumākua. The circle of life is thus complete.

Hei Kupua – String Figures of Demigods

Just as Kana was born as a useless piece of string so were Kinikuapu‘u and Palila. These *kupua* or “demigod or culture hero,” have hei figures for them. *Kinikuapu‘u* is made of three separate sliding figures: (a) *Kinikuapu‘u*; (b) *Nā keiki pi‘i niu*, children climbing for coconuts ; and (c) *Nā keiki kōhi pā‘ō‘ō*, children digging for sweet potatoes.

The first figure I learned easily. The other sliding figures were elusive. I could create them one day but not the next. Remembering that *kupua* were elusive and transformative beings, I again chanted the “E Hō mai i ka ‘Ike” chant. This time I received no *hō‘ike na ka pō* nor instruction by ‘*ūlāleo*, my usual means of receiving spiritual instruction. This bothered me. What was blocking my reception?

Over a week or two, I was impressed with a feeling that I needed to approach my research and learning with humility just like “children climbing coconut trees” or “children digging for sweet potato fragments” for daily sustenance. It seemed that in my quest to achieve a doctoral degree, my ‘*ano* (nature) reverted back to the learned methods of dominant academia.

I was reminded of the work of a respected Hawaiian elder and scholar, Peter Hanohano (2001), who wrote that the ethic of Hawaiian researchers was to approach and respect elders and ancestors with humility. I was also reminded to reread Wilson’s (2008) chapter on “relationality” a term coined to describe the important relationships one has with (a) people, (b) the environment/land, (c) the Cosmos, and with (d) Ideas.

Thus, only after approaching learning these string figures for *kupua* with humility and respect that I was able to learn them. I see these string figures as *hō‘ailona* or symbols that convey meaning just as Puku‘i (1972b) described previously when she wrote that “ they [the ‘*aumākua*] hid their appearance in symbol and allegory” (p. 172).

Kinikuapu‘u was made on Hawai‘i, O‘ahu, and Ni‘ihau, and *Palila* was made on Ni‘ihau. The string figure for both is bent twice in the middle, alluding to Kinikuapu‘u’s hunched back as well as to Palila’s birth as a piece of rope (Fornander, 1916, p. 136) . The figure is then is converted into another figure called either *Nā keiki pi‘i niu*, as in the previous version of *Kinikuapu‘u*, or *Malo o Pua‘ula* (the loincloth of Pua‘ula), which refers to Palila’s *malo pua‘ula* (red flower loincloth) that was stained with the flowers of the *hau* (hibiscus *tilliaceus*). Wherever Palila spread his *malo* to dry, the *hau* plant would

not grow. This was in respect to Lupea, his nursemaid and mother's sister, who became a hau tree to supply medicine, wood, and fiber to future generations.

Unraveling Knots

After the birth of man in the Eight *Wā* (Epoch) of the *Kumulipo*, several kupuna are born with names suggesting knowledge of string movement. They were Miloⁱⁱⁱ, Hei^{iv}, Wili^v, Mahili^{vi} and others. According to this cosmogony, string technology was given to the kupua Māui by his father 'Akalana and passed down by this family. In the mo'olelo of Māui snaring the sun, his mother, Hina, gave him 14 'aha (sennit rope) to snare the legs of the sun. He must find his grandmother who will give him the strongest rope, the 15th 'aha to weigh the sun down. This event is commemorated in the hei figure *Kīpuka Hele Lā a Māui*.

Sacred cords were given names such as Kūkamaki'ilohelohe and used in the 'aha kapu, a ceremonial performance of the highest form. 'Aha separated and distinguished the living quarters of the ruling *ali'i* (chief) such as the 'aha *hele honua*, a sennit rope that surrounded his home: "Some chiefs had several such cords, each given a name, and some were used after the owner's death in making the ka'ai, container for his bones." (Pukui and Elbert 1971: 6)

In the 'aha kapu chant of the father of Līloa, Kīhānuilūlūmoku, various cords were used to delineate the outside of the *heiau* (sacred temple) as well as the insides of the *hale poki* (a ritual house). These 'aha were eventually incorporated into his *kā'ai* (sennit casket) for his bones as described below:

He Mele

O Kihānuilūlūmoku,	Kīhānuilūlūmoku is the chief
O Kuike, o Kanike, Hoapii,	Kauike and Kanike
O Uweke ka aha,	Companions of Uweke are the 'aha
O Kapuahi ka aha maloko,	Kapuahi is the inner 'aha
O Kailiee ka aha lanalana	Kailiee is the suspended 'aha
o ke kapu mawaho	of the outer, sacred boundary
Ka aha o ke alii	This is the 'aha of the chief

E ku ai i ka nuupaa,

That will stand in the Secure
Tower

I ka nuupaa i ka poki paa,
Paa ai o Kiha a ku ike kaai,-

In the Secure Poki House
And that contains Kīhā in his
burial casket.

(Kamakau, 1860, p. 22)

(K. Akana, Trans.)

Furthermore, string technology and knowledge enabled the artisan and builder to create beautiful art and to construct sturdy objects, such as canoes and adzes, that were lashed together with those cords. The expert also needed to know how to unravel knots, the bane of all who manipulated string, cord, and other fibers. The *pā‘ū* of Lu‘ukia, an intricate skirt made of cords and knots, was an example where intricate knowledge of string as well as unraveling of knots was needed because only an expert could create and unlock the chastity skirt, which comprised a series of complex knots.

Kaula (string) was used in sacred performance and epitomized in the Hawaiian healing ceremony of *Hana Ka Uluna*, where the successful and successive making of *pū kaula*, the art of slip knotting and unraveling was performed over a sick or diseased patient. A knot is a *hīpu‘u* or *pu‘u*. Pu‘u or hills are portents of obstruction or problems as in the saying, *Eia ka pu‘u nui i waho nei ē, i ke anu, i ke ko‘eko‘e* (The problem lies without in the cold, the child).

Thus, the ability to unravel and loosen these knots was highly significant and important in healing. When a knot occurred, the chanter uttered ‘*Elepaio*^{vii} *kau mai, kaukau mai* (Flycatcher, rest upon this knot and give counsel). My research into hei reminded me of encountering “knots.” The first knot-obstacle was the complexity of *Lonomuku*. Just as the old ones chanted ‘*Elepaio kau mai, kaukau mai*, chant and prayer assisted me and through direct spiritual instruction and muscle memory, the figure was learned. The second knot was *Ku e Ho‘opi‘o ka La*. It was, in fact, a life goal of mine to learn the hei figure for *Ku e Ho‘opi‘o ka La* because Dickey (1928) found that “the chant is known to many Hawaiians who do not know how to make the figure” (p. 14). By actively using the language of the kūpuna and through spiritual assistance the pu‘u was unraveled.

Meyer (2003) quotes Luana Busby-Neff as saying, “We don’t learn new tools, we remember them.” (p. 1x). Hei is a tool left to us by our ancestors to remember them and the places and people they touched. Thus, in performing hei I remember my first teacher of ‘ōlelo and hei, Sarah Keahi. I remember ‘Āina Keawe of Hilo, a tireless laborer in the City and County of Honolulu Parks and Recreation division devoted to perpetuating all things Hawaiian. She once told me that she gathered all of her medicines from nature and she lived to a ripe old age.

I also remember and honor my kumupa‘a, Kaluahine, who stepped into my dreams and assisted my fingers in manipulating the strings to form hei. Through dreams, cellular memory, intuition, and direct spiritual instruction *Lonomuku, Kūhau Pi‘o ka Lā* and others were learned.

Sometimes learning was guided by reminders to be humble in my approach to learning such as with the kupua figures *Kinikuapu‘u* and *Palila*. As a native researcher, I must be ever mindful to be humble before my elders and ancestors and the legacy they left for me and my generation.

The Cord Vibrates Still

Although string media have changed from ‘olonā fiber to yarn, kites string, or nylon, the vibrations of hei made yesterday leave “string” imprints to help us recreate hei today and for tomorrow. When coupled with the stories and chants of yesterday, the maker of string figures also continues to recreate the poetic visions of our ancestors held in our *mo‘olelo, mele, and mo‘okū‘auhau* (history, song, genealogy). 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.

As more and more of our elders pass away, native Hawaiian researchers like me are cut off from our cultural sources of knowledge and wisdom. However, direct instruction from our ancestors is one way we can remain connected to those who have passed on to *ke ao pōpolohiwa a Kāne* (the deep purple clouded realm of Kane). To reestablish this connection, researchers must know their own genealogy because the ‘aumākua shares information with family members through *hō‘ike na ka pō*. If the researchers cannot identify their ancestor, the validity of any kind of claimed information received is highly questionable. It is implausible, for example, for a Hawaiian to receive

spiritual information from the ancestors of the First Nations peoples, as we have no known genealogical ties to them. Spiritual information is privileged information that cannot be accessed by people not belonging to the indigenous group. There is no getting around it and no political correctness about this relationship.

Was the learning of hei just for amusement? Play and amusement was one of the purposes to be sure. More importantly, hei was the means by which our stories and history were perpetuated. The chants and symbolic figures that were performed made a lifeline connecting one generation to another. As a result of performing hei, our language can be further revitalized. As a result of teaching hei, learning can be enhanced.

All of us engaged in indigenous research have an obligation or *kuleana* to return the knowledge gained from our ancestors to benefit our communities. Just as the old ones left their memories, we leave our thoughts in writing, just as this paper now left open to your criticism. ‘Elepaio kau mai, kaukau mai.

References

- Beckwith, M. (1970). *Hawaiian mythology*. Honolulu, HI: University of Hawai'i Press.
- Benham, M. K. P., & Heck, R. (1998). *Culture and educational policy in Hawai'i: The silencing of native voices*. Mahwah, NJ: Lawrence Earlbaum Associates
- Cajete, G. (2000). *Native science: natural laws of interdependence*. Santa Fe, NM: Clear Light Publishers.
- Castellano, M. (2000). Updating aboriginal traditions of knowledge. In G. Sefa Dei, B. Hall, & D. Rosenberg (Eds.) *Indigenous knowledges in global contexts: Multiple reading of our world*. Toronto, Ontario, Canada: University of Toronto Press.
- Dickey, L. A. (1928). *String figures from Hawai'i*. Honolulu, HI: Bishop Museum.
- Elbert, S., & Mahoe, N. (1971). *Nā mele o Hawai'i nei: 101*. Honolulu, HI: University of Hawai'i Press.
- Ermine, W. (1995/1999). Aboriginal epistemology. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada* (pp. 101-112). Vancouver, British Columbia, Canada: UBC Press.
- Fornander, A. (1916). *Fornander collection of Hawaiian antiquities and folklore. Memoirs of the Bernice Pauahi Bishop Museum*. Volume V-Part I. Honolulu, HI: Bishop Museum.
- Hanohano, P. K. (2001). *Restoring the sacred circle: Education for culturally responsive Native families*. (Ph.D. dissertation, University of Alberta, Canada.) Retrieved from Dissertations & Theses: Full Text. (Publication No. AAT NQ68941).
- ʻĪʻĪ, J. P. (1959). *Fragments of Hawaiian history*. Honolulu, HI: Bishop Museum Press.
- Kamakau, S. (1860). He mele. *Ka Hae Hawaii*, Mei 2, 1860, p. 22.
- Kamakau, S. (1870). He moololo Hawaii, *Ke Au Okoa*, Maraki 3, 1870, p. 1.
- Kovach, M. (2009). *Indigenous methodologies: characteristics, c, and contexts*. Toronto, Canada: University of Toronto Press.
- Kameʻeleihiwa, L. (1992). *Native land and foreign desires: pehea lā e pono ai?* Honolulu, HI: Bishop Museum Press.

- Malo, D. (1951). *Hawaiian Antiquities* (2nd ed). Honolulu, HI: Bernice P. Bishop Museum.
- Meyer, M. (2003). *Ho‘oulu: Our time of becoming, Hawaiian epistemology and early writings*. Honolulu, HI : Ai Pohaku Press.
- Perreira, H. K. (2009). *Ka Mo‘olelo Hiwahiwa o Kawelo*, Honolulu, HI: Bishop Museum Press.
- Puku‘i, M. K., & Haertig, E. W., (1972a). *Nānā i ke kumu: look to the source* (Vol. 1) Honolulu, HI: Hui Hānai.
- Puku‘i, M. K., & Haertig, E. W., (1972b). *Nānā i ke kumu: look to the source*. (Vol. II) Honolulu, HI: Hui Hānai.
- Whorf, B. L. (1941). The relation of habitual and behavior to language. Written in 1939 and originally published in L. Spier (Ed.), *"Language, Culture and Personality: Essays in Memory of Edward Sapir"* reprinted in Carroll (1956:134–59).
- Wilson, S. (2008). *Research is ceremony: Indigenous research methods*. Black Point, Nova Scotia, Canada: Fernwood Publishing.

Notes

ⁱ ‘aumākua is plural for ancestor; ‘aumakua is singular. The cognate in Māori is kaumātua but they are the living elders.

ⁱⁱ The breadfruit tree of Leilono is in Moanalua near Kapukakī. *Leina ka ‘uhane*, or leina for short, are leaping off points for the spirits to enter into the realm of the ancestors. On O‘ahu, a famous leina is at Ka‘ena point, the westernmost cape where the sun sets.

ⁱⁱⁱ Milo(twine,drag down),a wife, 11th Era Liliuokalani Translation, p. 38

^{iviviv} Hei (caught), a wife, 11th Era Liliuokalani Translation, p. 46

^v Wili (twirl, twist), a wife, 11th Era Liliuokalani Translation, p. 36

^{vi} Mahili (braids of strands), a husband, 11th Era Liliuokalani Translation, p. 36

^{vii} The flycatcher is a helpful and inquisitive forest bird. If it landed on a tree, the canoe builder took it as a sign to not cut it down. The bird was a messenger from the goddess Lea.

Article 4
Hei: Hawaiian String Figures:
Hawaiian Memory Culture and Mnemonic Practice

Prologue

I grew up at the very western border of the city of Honolulu where the district of ‘Ewa begins on the island of O‘ahu. The old ones called this place Kapūkakī; we called it Red Hill. When postal packages arrived in those days, they were bound with heavy string, and we appropriated this string for “cat’s cradle,” a formation made with string.

My older cousins and neighbors were my first teachers of cat’s cradle. I remember that one of our favorite games was a cat’s cradle marathon whereby we would take a string figure and convert it into another figure without restarting. We started with the basic position, which I later learned was called “Opening A.” Then we took turns creating figures we named “Chopsticks,” “Diamonds,” “Chinese Jump Rope,” and so forth until someone could not solve the string puzzle. No one ever lost, however, because we were eager to help anyone who was stumped as we wanted to continue playing for as long as possible. Making string figures was to us only a game—a pastime. However, looking back, I see that some powerful socialization took place. Socialization and playing together is something you rarely see today, as children are preoccupied with hand-held electronic devices or with social networking on virtual, web-based sites.

The first *hei* (string figure) I learned was “Two-eyes,” for the chant, “Eia ke kaula,” composed by Aunty Nona Beamer (see Beamer, 1972). Aunty Nona was a longtime advocate for *hula* (Hawaiian dance) and beloved educator at the Kamehameha Schools. I learned “Eia ke kaula” from Mrs. Sarah Quick, whom I worked under as a program aide in Hawaiian language in the Explorations summer program for Hawaiian children not enrolled at the Kamehameha Schools. This was my first exposure to chanting while creating string figures, and it was the first time that I discovered that string figures were used for instruction and learning.

I learned additional *hei* from ‘Āina Keawe, a *kupuna* (elder) who worked for the City and County of Honolulu Hawaiiana Department. Not much credit is given to this

department, but it was once the bastion of Hawaiian culture and the arts and arguably one of the reasons for the success in the resurgence of interest in hula, Hawaiian sports, Hawaiian musical instrument making, Hawaiian slack-key guitar, Hawaiian arts and crafts, and the Hawaiian language.

‘Āina Keawe, Alice Keawekane, Alice Namakelua, Hoakalei Kamau‘u, George Holokai, Adeline Maunupau Lee, and other notable Hawaiians worked in this division and endeavored to keep the Hawaiian culture alive and vibrant especially amongst the youth of Hawai‘i. “Aunty ‘Āina,” as we called her, perpetuated the love for *lā‘au lapa‘au* (herbal knowledge) and shared hei knowledge with interested youth. She taught me One-eye, Seven-eyes, Thirteen-eyes and Winking Eye. She also encouraged us to search for Lyle Dickey’s *String Figures from Hawai‘i* to learn other traditional figures. After reading Dickey (1928), I purposed to learn *Ku e Hoopio ka La*¹ because he wrote that “the chant is known to many Hawaiians who do not know how to make the string figure” (p. 14).

Two years after learning hei from Aunty ‘Āina, I learned the chant *Ku Hau Pi‘o o ka Lā*, which I performed in *kepa* style, a rhythmic recitation of chant. I set as one of my goals in life to master the making of the string figures accompanying *Ku Hau Pi‘o o ka Lā*. I believe that my research began with that decision. This article describes how I integrated understanding of the chanted text, performance, and the physical construction of the string figures of *Ku Hau Pi‘o o ka Lā*. This study examines, furthermore, *Ku Hau Pi‘o o ka Lā* as a case study of Hawaiian mnemonic practice.

How Do We Remember?

A people remember what is important to them by committing that knowledge to memory. Memory, or recollected knowledge, is transmitted orally and is often situated in chant and song. Memory is also actualized in ritual, ceremony, the arts, and other traditional practices. According to Paul Connerton (1989), this kind of performative memory—gestures, manners, musical or dance performance and other socially negotiated practices—is where memory is “sedimented” into the body (pp. 94, 102). Ong

¹ Dickey(1928) uses “Ku e Hoopio ka La” and “Kuhaupio” to refer to the string figure. The chant used by Kalaiwaa is “Ku hau pi‘o o ka lā” and will refer to both throughout.

(1988/1982), who wrote extensively on oral cultures, noted that oral memory has a high “somatic [of the body] component” (p. 67). Similarly, Peabody (1975) noted a similar idea:

From all over the world and from all periods of time...traditional composition has been associated with hand activity. The aborigines of Australia and other areas often make string figures together with their songs. Other peoples manipulate beads on strings. Most descriptions of bards include stringed instruments or drums (p. 197).

Furthermore, the performance aspects of oral memory are enhanced by mnemonics, aids to memory, that stave off the effects of transience or forgetting. Jeanette Rodriquez (2007) writes about how oral memory extends a culture:

Memory culture is the process by which a society ensures cultural continuity by preserving with the help of cultural mnemonics its collective knowledge from one generation to the next, rendering it possible for later generations to reconstruct their cultural identity (p. 1).

In traditional Hawaiian society, Hawaiian memory culture was highly developed by the *kāhuna*-- knowledge keepers often referred to as priests, ministers, physicians, or professional experts. The mnemonics developed by them were performative—ritual, gesture, music and dance performance—and based on cultural principles of memory development such as *kūpīna* ‘i (repetition), *ka* ‘ina (order), *pilina* (association), *paukū* (segmentation), *ka pā ka na* ‘au (emotional affect), and *ho* ‘omakakū (visualization).

Hawaiian performative memory often included accompaniment such as *pahu* (drum) employed together with *oli* (chant) and *ha* ‘a (Hawaiian dance) to enhance ceremony. The wide array of instruments in Hawai‘i assisted the chanter in recounting history, epic deeds, genealogy, human emotion, as well as love for the land. While a looped string is not a musical instrument, it was used to accompany the songs and stories told of in classical dance. These songs and their string figures embodied one kind of mnemonic practice.

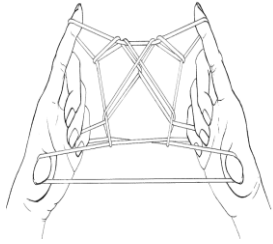
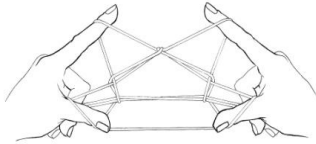
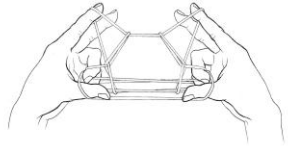
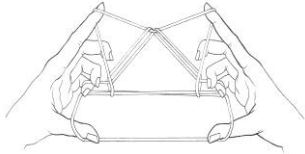
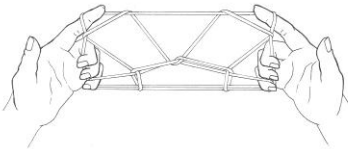
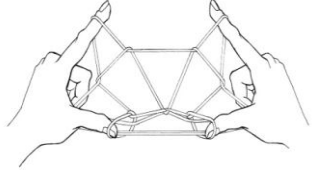
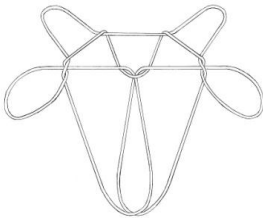
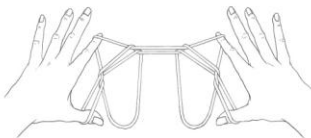
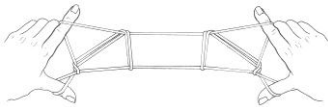
Table 1. *Ku Hau Pi'o o ka Lā*

Kalaiwaa text (1997)	English translation by M.K. Puku'i
1. Ku hau pi'o o ka lā,	The sun shines,
2. Ka lā i ke kula o Ahuena,	The sun shines on the plain of Ahuena,
3. Komo i ka la'i o Kailua la, 'o Kona,	It comes to peaceful Kailua, Kona is reached,
4. 'O Kona 'ia o ke kai malino,	It is Kona, home of the calm sea,
5. He lae i waho o ka Pūlau,	Extending all the way out to Pūlau,
6. Kani ke a'o i Wai'ula'ula, o Ka'ū,	The traveller whistles at Wai'ula'ula, Ka'ū is reached
7. 'O Ka'ū 'āina kua makani, hauna i ka lepo,	This is Ka'ū, great Ka'ū of the wind-blown back which swirls the dust upward,
8. Lele koa'e Kaumea la, 'o Puna,	The games of dust leaping is at the famous hill of Kaumea in Puna, Puna is reached,
9. 'O Puna 'ia o ke kai kōloa i ka ulu hala,	This is the Puna , Puna of the moaning sea,
10. E nū ana i ka ulu hala ke kai o Kea'au la, 'O Hilo,	Which groans to the <i>hala</i> at Kea'au in Puna, Hilo is reached
11. 'O Hilo 'ia o ka ua kinai,	This is Hilo of the endless rain,
12. Kinakinai kau o Hilo o ka ua, mao 'ole la, 'o Hāmākua,	The famous endless rain of Hilo, Hāmākua is reached,
13. 'O Hāmākua 'ia i ka pali Ko'olau,	This is Hāmākua of the sheer cliffs,
14. E nahu ana ka niho i ka ipu,	Holding the container by his teeth,
15. I ka pali o Koholālele,	At the cliff of KohaLalele,
16. 'O Waipi'o lāua 'o Waimanu,	Of Waipi'o and Waimanu, Kohala is reached,
17. 'O Kohala' iki, 'O Kohala nui,	Lesser Kohala, great Kohala,
18. 'O Kohala ua 'Āpa'apa'a,	Kohala of the 'Āpa'apa'a rain,
19. 'O Pili me Kalāhikola	There lie Pili and Kalāhikiola,
20. 'O na pu'u haelelua o ke kanaka no ka hele 'ana,	The two-sided hills that only man travels about,
21. 'O Kāne'o'opa e ne'e ana ma ka huahua	Kāne'o'opa moves along the beach among the sea foam,
22. Me ka 'ala'ala pa'ina pōhaku	The large air bubbles that burst with sound.
23. Aloha kākou.	We remember with love.

Note: Line 26 is added in oral performance and not included in most written texts.
'Okina and kahakō appear as they appear in Kalawaia text.

Table 2. Table of String Figures

Ku e Hoopio ka la or Kuhaupio in sequence.

 <p>Figure 1. <i>Ku e Hoopio ka la or Kuhaupio</i></p>	 <p>Figure 2. <i>Kona</i></p>	 <p>Figure 3. <i>Ka'ū</i></p>
 <p>Figure 4. <i>Puna</i></p>	 <p>Figure 5. <i>Hilo</i></p>	 <p>Figure 6. <i>Hāmākua</i></p>
 <p>Figure 7. <i>Waipi'o & Waimanu</i></p>	 <p>Figure 8. <i>Kohala Iki & Kohala Nui</i></p>	 <p>Figure 9. <i>Pili & Kalāhikiola</i></p>

Note: Drawings of figures were created and commissioned by Kalani Akana and drawn by artist, Kimberlie Wong.

Figure 1. *Districts of Hawai‘i Island*



Hawaiian Mnemonic Body and Practice

I selected as a case study the classic chant, *Ku Hau Pi‘o o ka Lā* (Kalaiwaa text, Table 1), because it is the longest text to accompany the making of string figures in Hawai‘i and possibly the world. Thus, its length provides a large sample to analyze. In addition, the nine progressive string figures (Table 2) provide a uniquely holistic view of Hawaiian mnemonics at work. As a result, *Ku Hau Pi‘o o ka Lā* is a good example of what the Hawaiian mnemonic body and practice comprises.

The text, *Ku Hau Pi‘o o ka Lā*, survived primarily as a chanted story. According to Dickey (1928), *Ku Hau Pi‘o o ka Lā* was the most famous of Hawaiian string figures (p. 14). That it was well known is a testament to its appeal, significance, and value. It also persisted because of the mnemonics, which are discussed here.

Auditory Mnemonics of Hei

Auditory mnemonics improve memory by stimulating auditory pathways to the memory center of the brain. An example of an auditory mnemonic is “My dog has fleas.” Young learners of the ‘ukulele learn to sing this to remember the sound of the notes of each string, “G, C, E, and A.”

The auditory mnemonics of hei can be appreciated by understanding how the composer crafted the chant. It is important to remember that paper and pencil was unavailable to the composer, so he or she created the story internally. Using evocative

images, the composer settled on words having significant meaning and that were acoustically and aesthetically pleasing. The *haku mele* (composer) implanted mnemonics into the story chant so that the composer could remember the chant again, and, if it is deemed memorable by those who heard it, be recited over and over again.

Ku Hau Pi‘o o ka Lā belongs to island of Hawai‘i; we know this through an analysis of the place names in the text. The chant is also a love story. It recounts the travels of two young lovers on Hawai‘i Island who meet in Kona, a district on the leeward side of Maunaloa, the central mountain on that island (see Figure 1). They break apart in Ka‘ū over some gossip but reunite in the district of Puna. They travel to Hilo and prosper and later in their life pass through the steep cliffs of Hāmākua. Finally, they end up in Kohala—the northern quadrant of the island.

As the chant moves from district to district, progressive string figures, consecutive configurations built from the former, are made to recount this journey. Each new figure represents a district as well as a different phase of the lover’s life story. This oral travelogue, so to speak, serves as a story plot. However, instead of following a European story-plot chronology based on Freytag’s (1836) story pyramid (exposition, rising action, climax, falling action and revelation), the Hawaiian story plot is place-based and geographically organized. Moreover, Hawaiian place-based story plot is more circular than linear as evident in the story plot for *Ku Hau Pi‘o o ka Lā* which describes a circuit of the island of Hawai‘i.

Furthermore, place-based plot situates the listener and establishes relationships to the story via the deep meanings and feeling attached to Hawaiian place. For example, Hilo is known for its never ending rains. The mention of “Hilo” at community gatherings inevitably prompts the memory of other well-known sayings, such as recorded by Puku‘i (1983, p. 107): “Hilo of the Kanilehua rain” or “Hilo, land of Hanakahi.” Hanakahi was a wise chief whose rule was peaceful, and the name itself denotes “unity.” The many traditional geographical epithets within *Ku Hau Pi‘o o ka Lā* (see Table 1) such as “Ka‘ū ‘āina kua makani. *Great Ka‘ū of the windblown back*” and “Kohala ua ‘Āpa‘apa‘a. *Kohala of the ‘Āpa‘apa‘a wind*” are timeless because they are repeated and remembered in songs that are still sung at family festivities and commemorative events. Place names evoke powerful memories and are themselves mnemonic devices.

In Western traditions, rhyme is typically employed as an auditory mnemonic. However, as rhyming is absent in the Hawaiian literary tradition, repetition is frequently used instead (Elbert and Māhoe, 1972; Ho‘omanawanui, 2007; Kimura, 2002). Note how the name of the district is repeated in the subsequent line below:

- | | |
|-------------------------------|--|
| 6. Kani ke a‘o i Wai‘ula‘ula, | The traveller whistles at Wai‘ula‘ula, |
| o Ka‘ū, | Ka‘ū is reached |
| 7. ‘O Ka‘ū ‘āina kua makani, | This is Ka‘ū, great Ka‘ū of the wind- |
| | blown back |
| hauna i ka lepo, | which swirls the dust upward, |

Another favorite technique of Hawaiian composers is the use of linked assonance; that is, a sound in a previous line, usually the last word, is linked to, echoed, or repeated in the subsequent line, usually the first word, as in the following example:

- | | |
|------------------------------------|-----------------------------------|
| 11. ‘O Hilo ‘ia o ka ua kinai, | This is Hilo of the endless rain, |
| 12. Kinakinai i ka ua mao ‘ole la, | The famous endless rain of Hilo, |
| ‘o Hāmākua, | Hāmākua is reached, |

In the previous example, “Hilo” acts as a catalyst for memory and images. In fact, all the districts in *Ku Hau Pi‘o o ka Lā* are *loci memoriae* (sites of memory), the *lieux des memoires* described by Nora (1989). We have two terms in Hawaiian for *loci memoriae*. The first is *wahi pana* (storied place) and the other is *kulāiwi* (homeland). The composer selected wahi pana within each district with storied past. For example, Waipi‘o (Table 1, line 16) is a storied place associated with Līloa, Pāka‘alana temple, and Hi‘ilawe waterfalls. Another example is Pili and Kalāhikiola (Table 1, line 19), beacon hills to travelers in the heavily misted lands of Waimea.

Kulāiwi, the other term for *loci memoriae*, evokes feelings of family and nation. Kulāiwi are literally the places where the bones of the ancestors were interred and thus are familial, ancestral lands. Kulāiwi is also where families hid and secured the umbilical cord of the young, a traditional practice that insured the future of the newborn. I identify Hāna, Maui, and Anahola, Kaua‘i as my kulāiwi or ancestral lands and remember in particular, my great-grandmother, Kamila Kekaula Makanui, and her perseverance in keeping our family lands in family hands. These kulāiwi are important to me because the *iwi* (bones) and *piko* (navel) of my ancestors are buried there.

The idea of “homeland” is not new for Hawaiians. We traditionally refer to our ancestral homeland as *Kahiki*. *Aupuni* (nation) is a 19th Century notion as Hawaiian families traditionally aligned themselves to chiefs and family members who governed certain districts or islands. The use of homeland as “nation” did not occur until Kamehameha united most septs, families derived from a common ancestor, and chiefdoms of the archipelago into a single nation state. Kaua‘i and Ni‘ihau were steadfastly governed by Kaumuali‘i until he and Kamehameha struck a peace accord in 1810 (Kamakau, 1867).

The point of all of this is that when place names, wahi pana or kulāiwi, are heard in the Hawaiian collective, they bring to mind memories of place, of family, of important events. Names have mnemonic power.

Despite efforts forcing us to forget our language, place names endure as loci memoriae. Benham and Heck (1998), Kame‘eleihiwa (1992), and Silva (2004) described how government policies, such as the 1896 ban on the use of Hawaiian language as a medium of instruction in schools, led to the demise of the Hawaiian language, literacy, and cultural identity. Fortunately, *Ku Hau Pi‘o o ka Lā* was remembered and its methodology inscribed. As a practice, it survived in the interstices of modern historical consciousness because language is a potent force in forming a collective and sustaining memory even if diminished by governments. Auditory mnemonics rely on and are built on language. They are powerful tools in helping us to remember and this memory is always visual.

Visual Mnemonics of Hei

Visual mnemonics work by associating an image with characters or objects whose name sounds like the item that has to be memorized. For example, the back of the Bactrian camel is shaped like the letter “B”; the shape of the Dromedary camel is shaped like the letter “D”. These two letters are visual mnemonics for learning the names of the two camel species.

The visual mnemonics of *Ku Hau Pi‘o o ka Lā* are the string figures themselves. As explained above, each figure is associated with a district, and each district evokes a set of emotions and memories associated with the storied places and ancestral lands therein. Unlike the visual mnemonics learned in American schools, e.g., ROY G. BIV

(color spectrum of a rainbow), the visual mnemonics in hei are more akin to Japanese *kanji*, writing characters that stem from the original Chinese ideograms or visual representations of real things in nature (e.g., river, mountain, fire, bird).

Figure 2. *Kona*

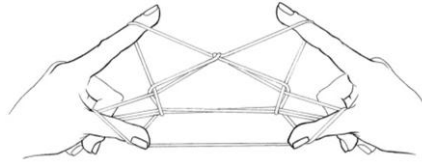
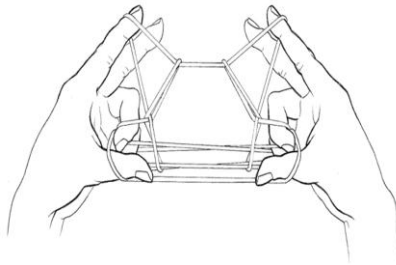


Figure 3. *Ka‘ū*



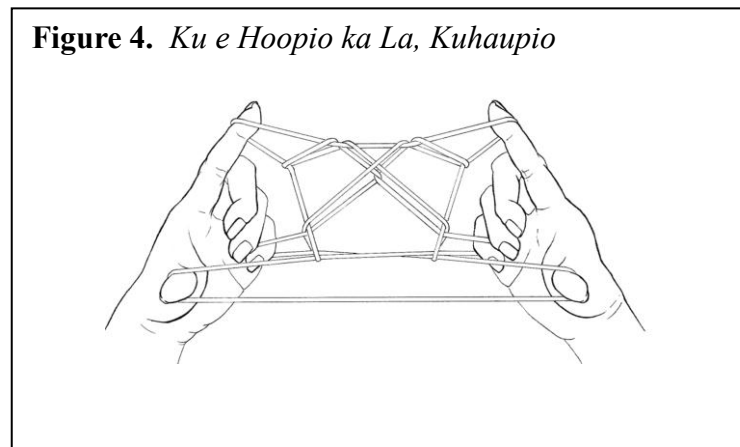
Hei figures are visual representations. These representations often have spiritual meaning. For example, the figure for *Kona* (Figure 2) is a house, and the house represents the unity and harmony of the couple in the story. In transitioning from the *Kona* figure, the gables of the roof are separated, thus representing disharmony in the next district, *Ka‘ū* (Figure 3). The text suggests that the reason for this disharmony is gossip: “The traveller whistles at Wai‘ula‘ula” (Table 1, Line 6).

Evidently, the pair reconcile by the time they reach the Puna district, as the figure for *Puna* (Table 2, Figure 4) is a large house representing reconciliation and abundance. *Hilo* (Table 2, Figure 5) shows large clouds, a symbol of wealth. *Hāmākua* shows the precipices of the district, and its narrow opening representing difficulties. *Pili* and

Kalāhikiola (Table 2, Figure 9) are companion hills representing renewed relationships and life. The last image shows the two hills moving away from each other, representing the conclusion of the story as well as the lovers' life together as a couple.

In addition, Hei uses structural depth to strengthen the visual association to the images of the chanted text. Consider the first lines of the chant:

Ku hau pi'o o ka lā	The sun shines
Ka lā i ke kula o Ahuena	The sun shines over the plain of Ahuena



In Figure 4, the figure for the sun is shown as a man with arms and legs. The smiling face of an audience member or even the stringer is the head of the sun. In addition, the arms of the figure also represent the peaks of the mountains looming over the Kona coast of Hawai'i island—Maunaloa, largest volcanic mountain in the world, and, Hualālai, the peak that the people of Kona adore and remember in song and chant.

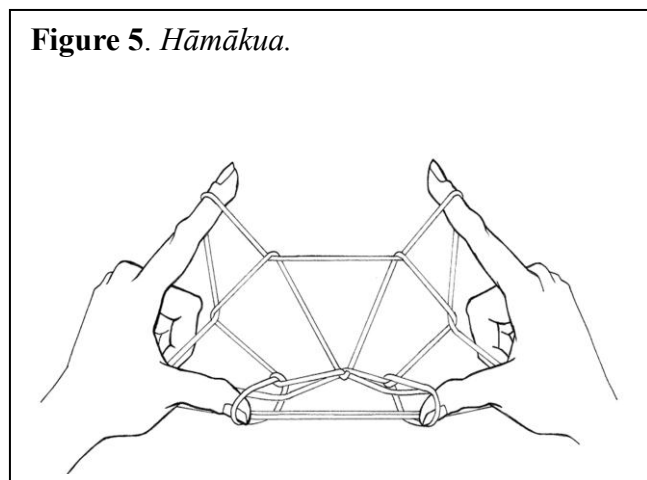
The sun rising over these peaks seems to balance on the ridges, peeking over the mountain; hence, the *kūhau* or teeter-totter effect of the sun. The strings held on the extended thumbs show the plains of Ahu'ena, a field of lava fields near the ocean. This positioning creates a three-dimensional effect.

Again, the figure for sun is a visual mnemonic very much like Japanese *kanji*, where the writing symbols are visual pictographs of real objects. Hawaiian string artists such as my teacher, 'Āina Keawe, recognized the sun figure as the symbol for a person with its "rays" as personified "arms and legs." Similar opening moves are found in string figures such as *Lonomuku*, "Maimed Lono in the Moon," as well as *Hawai'i Nui a Kāne*,

“Great Hawai‘i of the god Kāne” (see Dickey, 1928). Lonomuku and Kāne are ancestors and thus utilize the same sun or person figure. A string artist need only remember this *Sun* image to construct any of these string figures.

In the Hawaiian tradition, the sun is the god Kāneka‘ōnohiokalā. He walks across the land each day, slower in the winter and faster in the summer. Our ancestor, Māui, lassoed his legs and “persuaded” him to walk slower so that his family and the rest of mankind would have sufficient time to labor. He is the same sun, day after day, so unlike how we say, “Today is a new day,” each day is actually the same day in the Hawaiian worldview because the same sun appears and disappears each day. Hei is a perfect medium for demonstrating this concept because the figures, too, appear and disappear. It is memory that causes the figure of the *Sun* to reappear.

Hei belongs to Hawaiian storytelling tradition, so the visual images of the figures are reinforced with chant or story. The visual mnemonic is further intensified by involving the stringer in the creation of the visual representations as storyteller. For example, when creating *Hāmākua* (Figure 5), I pull two lateral loops towards me with the thumbs causing the previous figure for *Hilo* to shrink downwards, thus forming two entrances into the precipitous mountain district of Hāmākua. This visual representation reminds me of the epithet for Hāmākua: “Hamakua puka pepepe. *Hāmākua of the small opening*” (Poomaikelani, 1882, p. 13).



When chanting the line for *Hāmākua* (Table 2, Figure 6), “E nahu ana ka niho i ka ipu. *Holding the container by his teeth.*” (line 14), I grab hold of the lead string that represents the rim of a gourd with my teeth and separate the two dangling loops in the air, the resulting hanging loops representing the beautiful valleys of Waipi‘o and Waimanu as shown in Figure 6.

Figure 6. *Waipi‘o & Waimanu Valleys*

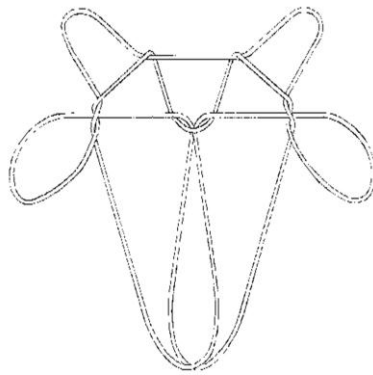
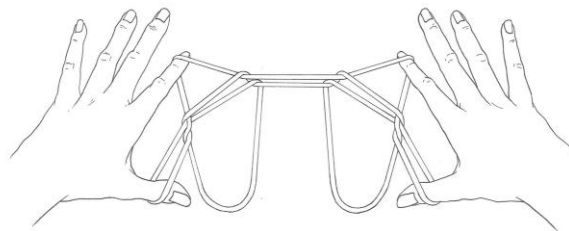


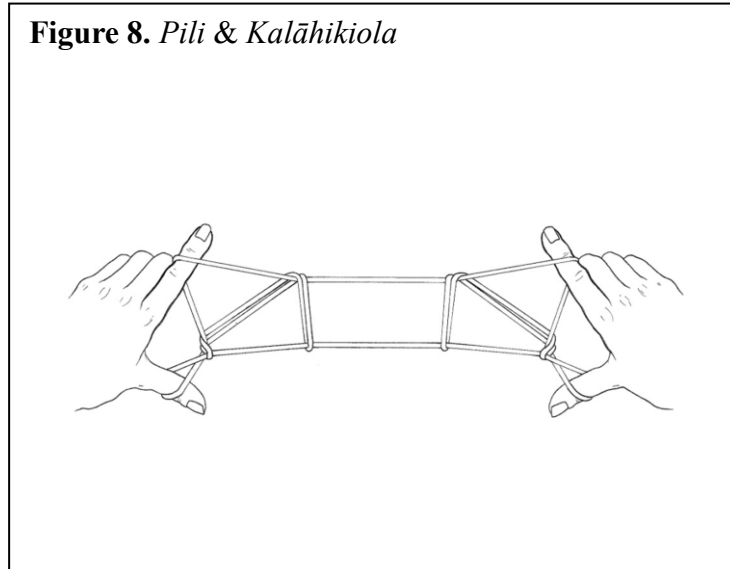
Figure 7. *Kohala Nui & Kohala Iki*



The entire retelling and performance of *Ku Hau Pi‘o o ka Lā* has spiritual intent whose meaning is dealt with more fully in the cultural mnemonics section of this article. *Ku Hau Pi‘o o ka Lā* begins with a visible sunrise and ends with an invisible sunset. The rising sun symbolizes youth and the beginning of life and the setting sun represents old age and the end of life.

Visual mnemonics collaborate with auditory mnemonics to tell this story of life and both of these systems synergize with kinesthetic mnemonics as *aides memoires*, aids to memory.

Figure 8. *Pili & Kalāhikiola*

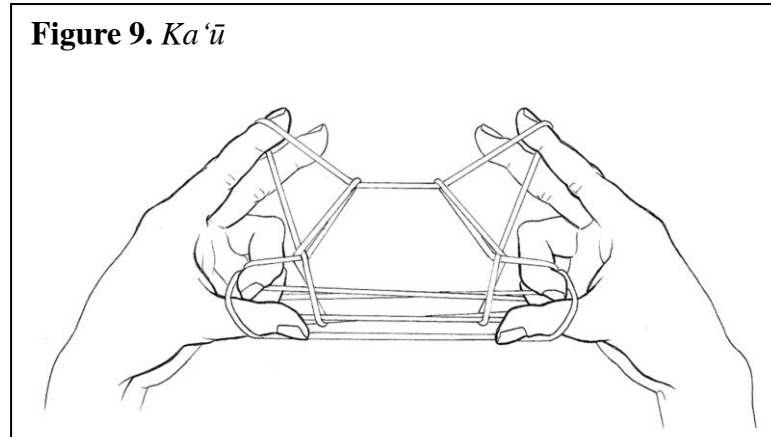


Kinesthetic Mnemonics of Hei

Dickey (1928) observed that “The Hawaiian is fond of motion or change in a string figure” (p. 11). *Ku Hau Pi‘o o ka Lā* is an excellent example of a chant that demonstrates this fondness for motion. While the story is chanted, the first figure changes and transforms several times resulting in a kind of slide show. In contrast, other hei transform once or twice but most hei never transform.

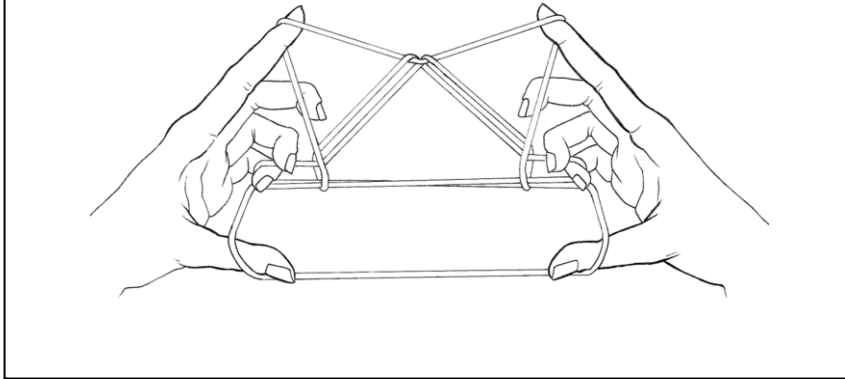
The opening movements to *Kuhaupio* are kinesthetic mnemonics because they are identical or similar to the opening moves of other figures mentioned before, such as *Lonomuku*, “Maimed Lono in the Moon,” as well as *Hawai‘i Nui a Kāne*, “Great Hawai‘i of the god Kāne.” They belong to a family of figures that have the “person” image. The string artist recognizes the movements through a kind of muscle memory and executes them accordingly and automatically. Repetition builds this muscle memory and

some Hawaiians believe that this muscle memory can be passed on to future generations, manifested as a *welo* or hereditary trait.



Auditory mnemonics synergizes with kinesthetic mnemonics. For example, when the chanter says “Komo i ka la‘i o Kailua la, ‘o Kona” (Table 1, line 3), he is cued to insert both indexes below each arm of the sun-figure as *komo* means “to enter.” Another example occurs at *Ka 'ū* (lines 6, 7). When one chants *lele* meaning “to jump,” the loop held by ring fingers is released, and it “jumps” upwards revealing the new figure, *Puna* (Figure 10). At *Puna*, when the word *nū* (Table 1, line 10) is chanted, the index fingers twists over another looped 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. They are auditory cues to the brain and muscle memory. These nuances in the chant are understood by those who know and speak the Hawaiian language.

Figure 10. *Puna*



Dickey worked for the Hawaiian kingdom surveying lands. Though he managed to learn Hawaiian, he confessed that he was not confident in understanding the deeper, esoteric meaning of the chants he collected (Dickey, 1928, p. 11). He suggested, for example, that the lovers of *Ku Hau Pi'o o ka Lā* lived happily ever after in the district of Kohala. However, when the string practitioner chants the last line of the chant, “e ne‘e ana ma ka hu‘ahu‘a. *moves along the beach among the seam foam,*” the index fingers and thumbs manipulate the figure so that the two hills of Pili and Kalāhikiola 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 and less of a fairy tale, storybook ending. The two lovers have indeed come together but also separate as they end their natural journey in life together.

Lastly, a Hawaiian kinesthesia is at play in hei. There are cultural rules for movement that also assist the hei maker in remembering what kind of move follows another. In the Hawaiian dance tradition, for example, a hand gesture that moves away from the body must return to the body. A gesture that moves upwards must return downwards. If the dancer moves forward, the dancer returns back to position (K. Topolinski, personal communication and instruction, June 1975 to June 1994). These gestures follow the text and language and demonstrate Hawaiian worldview (‘Aha Pūnana Leo & Ka Haka ‘Ula o Ke‘elikōlani, 2009). For example, in speaking, a person says “hele aku, hele mai” (*goes, comes*) and never the opposite, for the opposite implies

loss and even death. It is culturally inappropriate to even imply loss or death in speech amongst the living, especially when saying farewell.

These same cultural rules apply to the kinesthetic of hei. If the figure is made with the fingers going out and away from the maker, a reciprocal move is made with the fingers returning towards the maker. If the string artist is lost or forgets a move, this cultural sense of movement assists in remembering and problem solving. This cultural sense is described below.

Cultural Worldview Mnemonic

Hawaiian memory culture integrates several mnemonics within the cultural mnemonic--auditory, visual and kinesthetic. In addition, another kind of mnemonic is evidently at play and will be described as a cultural worldview mnemonic, a gestalt that includes spirituality.

The Hawaiian worldview was shaped due to Hawaiian's isolation in the middle of the Pacific Ocean and by the confines of the islands they inhabited. A geographical survey developed by the earliest inhabitants of the islands of Hawai'i was song. *Mele Pana* (songs of storied and sacred places) mapped the islands and its features in narrative form. This method of loci and the way that this survey took place followed cultural rules as described by noted Hawaiian scholar and writer, Mary Kawena Puku'i:

Mary Kawena Puku'i (oral communication) 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, 1971, p. 50)

In Elbert and Mahoe (1971), Puku'i described the island circuit device of the well-known song, "Hilo Hanakahi," which portrays the beautiful districts of Hawai'i island beginning in Hilo and traveling around the island in a clockwise direction going from Hilo to Puna, Ka'ū, Kona, Waimea, Kohala, Hāmākua and back to Hilo. Kamakau (1869) wrote that the island circuit was a way in which the ruling chief named and surveyed his lands:

Penei hou kekahi kapa ana i na kukulu o ka mokupuni ma ke kaapuni ana a ka Moi nona ke Aupuni, no kekahi oihana nui paha no ke Aupuni. Ina e noho ana ka Moi ma ka aoao hema o ka mokupuni, a manao oia e kaapuni i ka aina, a hoomaka oia e hele kukulu hikina, a huli kukulu akau mai, a huli kukulu komohana, a kaa lalo hema mia, he kaa lalo kukulu hema keia kaapuni i ka aina a pau. Ina e kaapuni ana i ka mokupuni, o ka lima akau maloko o ka aina, ao ka lima hema mawaho, he kaa kukulu akau ia i ka aina, he aua i ke Aupuni ke ano. Pela aku o Kaopulupulu i ka Moi Walia. (Kamakau, Nov. 4, 1869, *Ke Au Okoa*, p.1)

Translation: If the ruler were on the southern side of the island and began his circuit toward the east, then went north, and then down to the south to complete his circuit, he made what was called a *ka 'a lalo kukulu hema*, a “left-circuit.” If he made the circuit with his right hand “in” (*maloko*) toward the land and his left hand “out” (*mawaho*) toward the sea, this was called a *ka 'a kukulu 'akau*, a “right-circuit” of the island. This signified a retention (‘*au 'a*) of the kingdom--as Ka‘opulupulu, the *kahuna nui* of O‘ahu, said to the chief Walia [Kahahana]. (Kamakau, 1976, p.5)

This ancient performance and bodily practice as “sedimented” ancient memory is evidenced in song such as Puku‘i’s example of “Hilo Hanakahi” (In Elbert & Mahoe, 1970) as well as this article’s example of *Ku Hau Pi‘o o ka Lā*.

Method of loci is a mnemonic link system of classic antiquity and is sometimes referred to as “memory palace” because, according to tradition, Simonides was able to recall the location of victims in a collapsed “palace” by associating their seat position to their faces. Mele pana is the Hawaiian method of loci assisting the chanter in associating place to faces and events. Therefore, *Ku Hau Pi‘o o ka Lā* is a mele pana that associates the districts and all the beautiful wahi pana within to the faces of loved ones.

Hawaiian stories neither begin with traditional temporal markers such as “once upon a time” or “In 1492,” nor end with the “They lived happily ever after.” Hawaiian stories begin with names. This method reinforced a strong collective memory.

According to Maurice Halbwachs (1992, Chapter 4), strong collective memories are attached to landscapes. For example, consider the Waimea landscape: Pili and

Kalāhikiola are wahi pana within a landscape associated with warriors returning from battle, the cattle ranchers of contemporary Waimea, and the lovers in *Ku Hau Pi‘o o ka Lā*. Pili means “to be close to, to cling,” and Kalāhikiola means the “life-bringing sun” or “the day bringing salvation.” Kalāhikiola Congregational Church in Kapa‘au retains and preserves this name.

These hills are cultural monuments— monuments that mark a place in cultural memory. These cultural monuments are placed in song as *aides de memoire* and are examples of the cultural worldview mnemonic.

Why remember Hei?

In the case of the string figure, *Ku Hau Pi‘o o ka Lā*, our memories and recollections of traditional places are culturally and collectively rooted. The cultural worldview mnemonic acts as a pervasive and overarching aid to memory. Moreover, Hawaiian mnemonic practice does not employ a single mnemonic device but integrates several kinds of devices—auditory, visual, kinesthetic and cultural mnemonics—into a comprehensive system.

The pedagogical value of hei is apparent. Hei is multisensory, and the effect of audio, visual, and tactile sensory cues on memory and learning is well researched (de Frockert, Rees, Frith, & Lavie 2001; Kirkweg, 2009; Fitts & Posner, 1967). A colleague of mine who teaches math through hei has his students create their own figures and document each step in their creation process. Mathematical concepts like symmetry, correspondence, variance, degree, and angle are but a few of the things, he claims, that can be learned through hei. My associate also has an intriguing proposition that studying hei can aid his students’ understanding of String theory, a research framework reconciling quantum mechanics and general relativity (Chalmers, 2007; Seiberg & Witten, 1999; Schwarz, 2002).

Hei is also a mapping tool. Hawaiians created hei to serve as geographical maps of places such as the island of Hawai‘i in *Ku Hau Pi‘o o ka Lā*. *Wailua Nui* is a string figure that shows the location of *heiau* (temples), hills, and mountains ridges in the sacred district of Wailua, Kaua‘i. Other hei are celestial maps; an example is *Ka Heihei o Nā Keiki*, which shows the stars of the constellation Orion, specifically the “spikes” of *Nā*

Kao (Orion's belt). Another figure, *'Uala*, is a scientific map showing the root system of the sweet potato.

Hei teaches and passes on the orature of the elders. Dickey (1928) observed that "Not only does the modern Hawaiian have more to interest him, but he, and particularly his child in school, does not know and understand the allusions that were the main attraction in the string figure" (p. 12). The many stories accompanying hei have much to teach, and Hawaiian language immersion schools and Hawaiian culture-based charter schools are some of the natural places where the orature of hei can be perpetuated. It would be a beautiful sight to see and hear the stories of hei performed again.

For many years the Kamehameha Schools' Explorations Program taught hei as part of its summer outreach program for Native Hawaiian children not enrolled at the school. Hundreds of children delighted in making and chanting "Eia ke Kaula" for Two-eyes. They became so engrossed in hei that rules were developed to prevent them from constantly fiddling with the string their classes. This experience and my experience as an educator affirms hei's intrinsic qualities—qualities that can compete with contemporary media.

Hei performance was eventually eliminated from the night culminating program of Explorations partly because a community member reminded program administrators that hei is not made at night. The thought behind this belief was that the hand gestures of hei resembled rigor mortis and the making of hei at night would somehow portend death. Hei was also dropped from the day curriculum. Is it possible to respect tradition and continue to perpetuate the tradition and value of learning hei? Yes! The solution is to continue learning hei in the day curriculum and perform hei before sunset!

With the knowledge that hei utilizes a powerful mnemonic system to improve memory, we must continue teaching and learning hei. That memory of and memories within hei serves us as a people in keeping the stories of the kūpuna alive. *Lonomuku*, for example, tells a powerful story of spousal abuse and its ramifications but also preserves in its figure a reminder of her progeny, namely, Puna (ancestor of the chiefs of Kaua'i and O'ahu) and Hema (ancestor of the chiefs of Maui, Moloka'i, Lāna'i, and Hawai'i).

There is a little prayer in hei that is chanted when the loops become entangled in knots. Knots are problems that are frustrating but in ritual use of hei considered an ill

omen. The hei maker chants “‘Elepaio kau mai, kaukau mai. *Hawaiian fly-catcher bird come and perch (upon the knot) and criticize it.*” The ‘elepaio was a bird who helped the canoe-maker find a suitable tree. If the bird perched upon a tree and started to peck on insects, the canoe-maker knew it was not suitable, thus giving rise to the saying, “‘Ua ‘elepaio ‘ia ka wa‘a. *The ‘elepaio has [marked] the canoe [log]*” (Puku‘i, 1983, p. 306). The practical use of the chant was to calm the nerves and frustration of the string figure creator.

The string figure writer calls upon the same ally—the ‘elepaio. If there are any “knots” in this research, I chant, “‘Elepaio kau mai, kaukau mai.”

Epilogue

My ancestors and elders thought there was an important story in *Ku Hau Pi‘o o ka Lā* for us to remember. While I do not know the true intent and purpose of the story, the composer intentionally used cultural mnemonics to help us remember, and these mnemonics help us to recall the names of storied places, wahi pana. These wahi pana preserve ancestral names and whole genealogies; they also serve as bookmarks to historical events in that story.

I appreciate and remember these places that were loved by my ancestors, but I have to admit that I have different memories when I chant and perform *Ku Hau Pi‘o o ka Lā*. When I make *Kona*, for example, I think of Uncle Eddie Ka‘anana and Kamuela Kumukahi, reknown fishermen of South Kona and strong Hawaiian men. When I make *Puna*, I remember Luika Keli‘iho‘omalū showing us teachers where to find ‘ōkole, a kind of sea anemone, and cooking it so we could taste it crunchy goodness. When I make *Hilo*, I think of my *tūtū hānai* (adopted grandmother), Elizabeth Kauahipaula, the beloved kupuna at Waiau Hawaiian Language Immersion School, and her story of scampering over the *pa‘alā* (boulders) of Leleiwi as a child gathering *loli* (bêche-de-mer) for her mother. I also remember my hei teacher, ‘Āina Keawe, walking along the roadside of Keaukaha gathering herbs, wearing her trademark scarf and hand-woven hat of *lauhala* (pandanus leaves) and singing her composition, “Ku‘u Pāpale.” When I make *Hāmākua*, I remember Tūtū Nālani Ellis telling us about *puhi ‘īnikiniki*—little eels that she caught by hand by running her hand through beach pebbles, bait between the fingers. When I make

Kohala, I remember the old folks singing in spontaneous unison, “Maika‘i ka makani o Kohala. *The wind of Kohala is fine!*”

In remembering these elders, I am reminded of what living as a Hawaiian was like. Moreover, when I chant I *Ku Hau Pi‘o o ka Lā* and make the figures, I am reminded of where I belong and who I am as a Hawaiian and, thus, my place in the collective. I am also reminded to pass on the legacy of hei and *Ku Hau Pi‘o o ka La* to others so that they can share in this collective memory. I am reminded that I, too, walk the circuit of *Ku Hau Pi‘o o ka La*, life’s circuit and a path lined with all kinds of encounters—love, fear, goodness, prosperity and difficulty.

The study of mnemonics is not as important as what was intended to be remembered. However, as an important cultural mnemonic, hei captures the memories of our Hawaiian people. Without our memories, we forget what it is to be Hawaiian.

Glossary

aupuni	nation
hei	string figure and the art of string figure making
hula	the art of Hawaiian dance
kāhuna	priests, ministers, physicians, and other professional experts
kulāiwi	native land, homeland
kūpuna	elders, grandparents
wahi pana	storied place

References

- ‘Aha Pūnanaleo & Ka Haka ‘Ula o Ke‘elikōlani. (2009). *Kumuhonua mauiola: He kālaimana ‘o ho‘ona‘auao ‘ōiwi Hawai‘i*. Hilo, HI: ‘Aha Pūnana Leo & Hale Kuamo‘o.
- Beamer, W. D. (1972). *Eia ke kaula*. Hollywood, CA: Custom Fidelity.
- Benham, M. K. P., & Heck, R. (1998). *Culture and educational policy in Hawaii: The silencing of native voices*. Mahwah, NJ: Lawrence Earlbaum Associates
- Chalmers, M. (2007, September 3). Stringscape. *Physics World*. Retrieved from <http://physicsworld.com/cws/article/indepth/30940>
- Connerton, P. (1989). *How societies remember*. Cambridge, MA: Cambridge University Press.
- de Fockert, J. W., Rees, G., Frith, C. D., & Lavie, N. (2001). The role of working memory in visual selective attention. *Science*, 291(5509), 1803-1806.
- Dickey, L. A. (1928). *String figures from Hawaii*. Honolulu: Bishop Museum.
- Elbert, S., & Mahoe, N. (1970). *Nā mele o Hawai‘i nei: 101 Hawaiian songs*. Honolulu: University of Hawai‘i Press.
- Fitts, P. M. & Posner, M. I. (1967). *Human performance*. Belmont, CA: Brooks Cole.
- Freytag, G. (1863). *Die technik des dramas*.
- Hallbwach, M. (1992). *On collective memory*. Chicago: University of Chicago Press.
- Ho‘omanawanui, S. (2007). *Pele’s appeal: mo‘olelo, kaona, and huluhia in Pele and Hi‘iaka literature. (1860--1928)*. (Ph.D. dissertation, University of Hawai‘i at Mānoa). Retrieved from Dissertations & Theses @ University of Hawaii.(Publication No. AAT 3288107).
- Kalaiwa‘a (Informant). Track 12 Mele Hei; mele pana. On *Nā Leo Hawai‘i Kahiko: Voices of Old Hawai‘i*. Honolulu: Bishop Museum Department of Anthropology. (1997)
- Kamakau, S. (1867). Ka moolelo o Kamehameha. *Ka Nupepe Kuokoa*, August 10.
- Kamakau, S. (1869). Ka moolelo Hawaii. *Ke Au Okoa*, November 4, 1869, p.5.

- Kamakau, S. (1976). *Ka moolelo Hawaii*. (M.K. Pukui, Trans.). In Barrere, D. (Ed.), *The works of the people of old*. Honolulu, HI: Bishop Museum.
- Kame‘eleihiwa, L. (1992). *Native land and foreign desires: Pehea la e pono ai? How shall we live in harmony?* Honolulu: Bishop Museum Press.
- Kimura, L. L. (2002). *Na mele kau o ka mahele mua o ka mo‘olelo ‘o Hi‘iakaikapoliopole na Joseph M. Poepoe: He kalailaina me ke kalele ma luna o na ku‘inaiwi kaulua*. (M.A. dissertation, University of Hawai‘i at Hilo). Retrieved from Dissertations & Theses: Full Text.(Publication No. AAT 1411491).
- Kirkweg, S. B. (2009). *The effects of music on memory*. St. Joseph, MO: Missouri Western State University. Retrieved from <http://clearinghouse.missouriwestern.edu/manuscripts/230.php>
- Nora, P. (1989). *Between memory and history: Les lieux de mémoire* [1984]. *Representations* 26, Spring 1989, 7-25.
- Ong, W. J. (1988/1982). *Orality & literacy: the technologizing of the word*. New York, NY: Rutledge.
- Peabody, B. (1975). *The winged word: a study in the technique of ancient Greek oral composition as seen principally through Hesiod's works and days*. Albany: State University of New York Press.
- Poomaikelani, K. (1882). *Ka puke moolelo o ka papa kuauhau alii o Hawaii*. Honolulu, HI: Royal Genealogy Board of Hawai‘i.
- Puku‘i, M. (1983). *‘Ōlelo no‘eau: Hawaiian proverbs & poetical sayings*. Honolulu, HI: Bishop Museum Press.
- Rodriquez, J. (2007). *Cultural memory: resistance, faith & identify*. Austin: University of Texas Press.
- Schwarz, J. H. (2000). *Introduction to superstring theory*. Four lectures presented at the NATO Advanced Study Institute on Techniques and Concepts of High Energy Physics, St. Croix, Virgin Islands. Cornell University Library. Retrieved from <http://arxiv.org/abs/hep-ex/0008017>.
- Seiberg, N., & Witten, E. (1999). *String theory and noncommutative geometry*. Cornell University Library. Retrieved from <http://arxiv.org/abs/hep-th/9909142v3>.

Silva, N. (2004) *Aloha betrayed: Native Hawaiian resistance to American colonialism*.
Durham, NC: Duke University Press.

Article 5

Performance Cartography of Kaua‘i

Maps play an integral part in society. Much of our schooling, for example, involves some kind of map—the physical map, political, regional, climate, environment or population map. Over time, we learn to use maps to locate businesses or restaurants, to plan vacations, or to attend family or school reunions. Today, maps are more accessible with Google and technologies such as Geographic Information Systems (GIS) that makes maps easier to find and use.

On the other hand, map making may not be that familiar to us. For example, many do not know that the first printed and published maps of Hawai‘i were created by Captain James Cook. They were published as engraved plates in three volumes by Nichol and Caddell (1785): Vol. 1 has 7 engraved plates; Vol. 2 has 9 engraved plates; Vol. 3 has 6 engraved plates. From Cook’s time until the mid-19th century, maps and mapmaking in Hawai‘i developed to satisfy western desires and needs. Maps were created for maritime commerce, missionary endeavors, and scientific investigations. Subsequently, charts and maps were created to depict the shores, harbors, towns, natural resources, and important geological phenomena. From the mid-19th century on, maps and mapmaking were very important in satisfying introduced and alien needs for metes and bounds and land ownership.

The Eurocentric history and orientation to maps and map making in Hawai‘i, however, does not preclude the existence of maps developed by Native Hawaiians. If we look at maps with a more global lens, such as developed by Harley and Woodward (1987) in their *History of Cartography*, we can conceive of such a possibility. Harley and Woodward wrote that maps are “graphic representations that facilitate a spatial understanding of things, concepts, conditions, processes, or events in the human world” (p. xvi.). Thus, all people have their own ways of representing their spatial understanding of the world. It is a matter of understanding how people represent space.

Furthering their desire to acknowledge the ways traditional people looked at, conceived, and communicated their world, especially in spatial terms, Woodward and Lewis (1998) conceived of performance cartography. In the second volume of *History of*

Cartography, they analyzed the voluminous anthropological and ethnographic record that provided ample evidence of how indigenous people described their world in spatial terms. Woodward and Lewis were careful not to draw a line between western cartography and the cartography of indigenous people as the “other” or to demean or debase “tradition” or “indigenous” as inferior or even progressing toward some western ideal of “map.” They found, rather, that indigenous peoples expressed and represented their world differently and that frequently those representations were made through performance:

... a performance may take the form of a non-material 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).

Thus, the Woodward and Lewis conceptualization of performance cartography does acknowledge and account for the existence of maps and map making in the Hawaiian culture before contact with the west. The following discussion looks at Hawaiian performance cartography and analyzes various forms of Hawaiian spatial knowledge and practice, especially the non-material forms.

Hawaiian Performance Cartography

In the Hawaiian culture, a “more material, but still ephemeral, demonstration” of performance cartography can be seen in the designs on the brilliant feather cloaks or *‘ahu‘ula* of Hawaiian warrior chiefs, with the many geometric designs and patterns. Mitchell (1982) described three battle formations that can be seen in cloak patterns: *kahului* (crescent), *kūkulu* (straight lines), and *makawalu* (clusters or circles) (p. 282.). Another example of performance cartography of the material kind might be *ki‘i pōhaku* (petroglyph). Stasack believed that the numerous *kōnane* (checker) boards found on pāhoehoe fields strewn with petroglyphs assisted in mapping out battle strategy (E. Stasack, personal communication, December 13, 2010).

While graphic representations in feather cloaks or *kōnane* are more easily recognizable, other forms may not be, especially the non-material forms such as a

“gesture, ritual, chant, procession, dance, poem, story, or means of expression.” Oliveira (2006) pointed out the non-material forms of Native Hawaiians:

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).

Given this description of Hawaiian performance cartography, our learned notion of maps and the western cartographic tradition is challenged. To meet that challenge, the goal of this paper is to broaden and expand our concept of geographical and spatial reckoning and enable us to better understand and appreciate performance cartography. In addition, I hope a fuller discussion of performance cartography will transform the non-material and ephemeral, and to a certain extent the forgotten and misunderstood, into more material and permanent ideas and demonstrate that even the transient can have lasting permanence.

The following discussion examines Hawaiian performance cartography only as it relates to one island of the archipelago—the island of Kaua‘i. I selected Kaua‘i for several reasons. First, it is the *kulāiwi* (homeland) of my paternal grandfather, Eli Akana, and the Akana clan and a place where the *iwi* or bones of my ancestors rest in peace. Second, Kaua‘i looms large in lore and legend, regarded as one of the origins of *hula* (dance) as well as the home of Hawai‘i’s most sacred chiefs. Third, as a result of its historic and mythical nature, there is an abundance of material that adds readily to this understanding of the Hawaiian performance cartographic tradition. Fourth, the performance cartography of other islands will be presented in subsequent articles. Fifth, a circuit of Kaua‘i can be accomplished within the breadth and scope of this study.

This paper is presented in a traditional format, beginning with a chant asking permission to “enter” into the cultural landscape described in *mele* (songs) and *hula* (dance). The gods and chiefs are then honored and respected, so I look at *mo ‘okū ‘auhau* (genealogies), *‘ōlelo no ‘eau* (proverbs), *mahele ‘āina* (land divisions), *inoa ‘āina* (place names), and *mo ‘olelo* (historical accounts) as examples of performance cartography that pay homage to the gods and chiefs. Next, the land and people are remembered and praised. I look at the performance cartography of *hei* (string figures) and its many forms of depicting my ancestors’ love for the land. This section on *hei* forms a significant part of this study because it is a performance cartography that I hope to reclaim and revitalize. *Hei* represents a fragment of a long continuum of knowledge, an ancient thread that has frayed with assimilation and neglect. When the threads of fishing nets were broken or became frayed through use, they were immediately repaired with care and love because the whole integrity of the net was compromised with even the tiniest of tears. So, too, the threads of *hei* are worthy to be strengthened and repaired for the integrity of the larger net of Hawaiian knowledge.

I now stand on the shores of Wailua and chant the following *mele* asking permission to enter into the land and reacquaint myself with the spiritual home of my ancestors.

Mele as Performance Cartography

Mele Kāhea (Admittance Chant)

Kūnihi ka mauna i ka la‘i ē	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.
(E. K. McKenzie, personal communication, April 20, 1978)	

When the goddess Hi‘iaka stood upon the banks of the Wailua River and offered this *mele kāhea* (admittance chant), she chanted about a pristine and familiar place. Looming above her was majestic Mount Wai‘ale‘ale, her former home once presided over by her older sister, Pele, and the rest of the fire clan, which included her sisters: Hi‘iakakapu‘ena‘ena, Hi‘iakapua‘ena‘ena, Hi‘iakawāwahilani, Hi‘iakanoholani, Hi‘iakamākolewāwahiwa‘a, Hi‘iakaka‘alawamaka, Hi‘iakakalei‘ia; and, her brothers: Kamohoali‘i, Kānehekili, Kānehoalani, Kāneapua, and others.

Wai‘ale‘ale was the volcanic home of Pele but was transformed dramatically when her sister, Nāmakaokaha‘i, inundated the volcanic craters of Pu‘ukapele with water that filled up to the base of Kawaikini. Wai‘ale‘ale is now a watery and ethereal world whose nature is expressed in the place names of her chant: *Wai‘ale‘ale* (Furrowed Waters), *Wailua* (Double Waters), *papa ‘auwai* (plain of water rivulets), and *Kawaikini* (Multitudinous Waters).

From where Hi‘iaka stood at the shore of Wailua, much of the uplands was obscured by a system of hills and ridges that ran parallel to the seashore. One of these hills was Nounou, a hill that 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 food surplus.

Hi‘iaka’s chant continues today as performance cartography. Hula practitioners still employ “Kūnihi ka Mauna” as a *mele kāhea* or admittance chant to gain entry into the *hālau hula*, the academy proper of Hawaiian dance. The topographical features and place names of “Kūnihi ka Mauna” form a metaphorical map for the physical layout of a 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. The obstacle can be overcome only 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 that does not appear on western charts and maps but known only in chants such as “Kūnihi ka Mauna.” In addition, the *ipu* in Kaipuha‘a refers to the gourd, one of the primary, percussive

instruments in hula; 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.

Renowned hula exponent and teacher, Māpuana de Silva, wrote a beautiful interpretation of the mele and the meaning it has for her and her students:

The chant [*Kūnihi ka Mauna*] 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, online community).

“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 of the physical setup of the hula academy. Third, the chant serves as a moral template with precepts within the text to follow such as humility and respect.

I now prepare to enter into the dance stage, which will be the verdant and lush district of Wailua on Kaua‘i.

Hula as Performance Cartography.

Mele Hula Ka'i

(Chant for Entrance Dance)

O oe ia e Wailua-iki,	It is thou (whom I seek)
	O Wailua-iki
E ka la ulu pali o Waioli,	On the sunlit hillock of Waioli
I hele ia mai e Li'a wahine,	Li'awahine advances hither
Ka wahine kui pua o Hoakalei e,	This woman who strings the
E lei oe.	flowers of Hoakalei to wear
E lei oe i na hala	Wear thou the hala
i pala 'Iloli i ke kai	that is speckled by the sea,
Ua hele wale a maka eleele i ke anu,	Speckled black by the cold,
Hina ia e ke Kina'u	And tossed down by the Kina'u
Ola ia Mahamoku ka makani	Mahamoku, the blustering wind,
ku puni kawalawala.	renews life.
Kahea i ka luna	When it calls to you from the top
o Kamae e ho'i	of Kamae to return
He malihini puka ko ka hale nei.	For visitors have come to your
	home.

(Puku'i, 1936, p. 16)

In this *hula ka'i* (entrance dance), the feet of the dancer progress steadily forward onto the dance floor using the *pahu wāwae* step (*hela* in other versions). The forward progression of the *pahu wāwae*, especially since the first forward step is longer and lower, 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. From tip to tip, both hands form a continuous sight line. The right hand sweeps upwards towards the left hand. This motif is repeated for the duration of the chant.

Whenever the hands of the dancer meet in the “uplands,” the chanter is singing about the “the sunlit cliffs of Wai‘oli,” the “top of Kamae” or other things related to the higher elevations. When the right hand of the dancer sweeps seaward, the chanter sings of “the hala ripened by the sea” or “entrance of the home (near the seashore).” The synchrony of audio and visual representations assists members of the audience in creating their own mental map of Wailua. This map is remembered with each performance.

As background to this chant, Hi‘iaka visited Kapo‘ulakīna‘u, a relative whom she called Wailua Iki or “Small Wailua,” but Wailua Iki is not at home. Hi‘iaka then called to a faraway place she perceived Kapo to be—there in 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 Lā‘ie Wai, Lā‘ie Malo‘o—are attached to place names to further describe location, geographical and socio-political significance. In the case of Wailua Iki, “iki” referred to the less populated portion of Wailua district as opposed to its geographical size, which is actually much larger. Wailua Nui (Great Wailua) referred, then, to the cultural and political center and, hence, the more populated part of Wailua. Wailua Nui also contained the great river, which flowed from Wai‘ale‘ale to the sea. Important and sacred sites were built and maintained along the river. Thus, as Kapo‘ulakīna‘u gathered flowers in the uplands and unpopulated portion of Wailua district, she is referred to and called “Wailua Iki” by Hi‘iaka

At this point, a *hula pahu* (drum dance) would be appropriate, but in adhering to the protocol of first honoring the gods, a *hula Pele* in honor of Hi‘iaka’s elder sister is presented instead. The performance reminds the audience that Pele’s first home was the island of Kaua‘i, reinforcing the genealogy of Pele and her link to its geologic history and creation. This information is explained by Puku‘i (1936):

Kauai, her first home, had its version of the Pele dance and Hawaii, her present home, had another. Perhaps the other islands also had dances in honor of Pele. I have not heard of any, but the dance used in Honolulu today by some exponents of the hula is a Hawaii version. The one demonstrated this evening is a Kauai version, the older of the two.

It's interesting to note that no musical instruments were employed as most performances of hula have some kind of instrumental accompaniment. Instead, "the musicians sat in rows and kept the time by clapping their hands while one or two dancers stood up to dance" (Puku'i, 1936, p. 17).

The first three couplets of the hula pele below name and show where volcanic activity took place and where Pele made her home. The three names: Pu'ukapele, Nōmilu, and Kakakalua are also evidence of secondary volcanic activity on Kaua'i.

Hula Pele (Pele Dance)

Lapaku ka wahine o Pele i Puukapele

¹

The woman Pele burst forth at
Puukapele

Owaka i ka lani, noke, noke

She flashed to the heavens, on and
on

Lapaku ka wahine o Pele i Nomilu²

The woman Pele burst forth at
Nomilu

Owaka i ka lani, noke, noke

She flashed to the heavens, on and
on

Lapaku ka wahine o Pele i Kakakalua

The woman Pele burst forth at
Kakakalua

Owaka i ka lani, noke, noke

She flashed to the heavens, on and
on

Elieli kau mai, elieli kau mai

It was awe-inspiring, awe-inspiring

Owaka i ka lani, noke, noke

She flashed to the heavens, on and
on

Amama ua noa, amama ua noa

Amama, the kapu is freed, the kapu
is freed

Owaka i ka lani, noke, noke

She flashed to the heavens, on and
on

(Puku'i, 1936, p. 17)

Pele's nemesis, Kamapua'a, was born on Kaua'i. He is honored in this next performance, which described atmospheric phenomena and served as a sort of weather map and almanac. For example, the people knew it would be a calm day when the "hairless pig," a rounded cumulus cloud, was seen atop of Hā'upu Hill. When the "bristling pig," a wispy stratus cloud was seen at Kalanipū [also Kalanipu'u], the people knew that it would be a stormy day.

Hula pua'a (hog dance)

Nemonemo ka pua'a i luna o Haupu	The hairless pig up on Haupu
E ha'i ana he malie, hu,hu, hu	Announces the calm, hu! hu! hu!
'Okala ka pua'a i Kalanipu	The bristling pig on Kalanipu
E ha'i ana he ino, u! u! u!	Announces a storm, u! u! u!
Inu wai i Kemamo	They drink the water of Kemamo
He pali iki 'o Kipu, uhu! uhu! uhu!	Kipu is but a small hill, uhu! uhu! uhu!
I Mahaulepu o a'u mau pu	At Mahaulepu are my conch shells
Ami!	I shake my hips

(Puku'i, 1936, p. 18)

In this performance, the dancer forms the rounded "hairless pig" with both hands together and facing down then separate and circles outward ending in a cupped position, hands together. To show the "bristling pig" both arms whisk back along the sides of the thighs then swing back, up, then forward with both hands meeting in front with palms downwards at Kalanipū. The gestures locate the mountain upon which the omen clouds show themselves. Here, the continuity of place is reinforced through the reminders of traditional weather omens observed, still, upon Hā'upu Mountain.

The performer ends each description with "uhu! uhu! uhu!" the rooting and grunting of a pig. The performance and reenactment remind all of the genealogical connections to Kamapua'a who was born on Kaua'i.

Mo'okū'auhau as Performance Cartography.

Next in the program comes the honoring of our chiefs and illustrious ancestors. They are remembered and honored through chant, especially through *mo'okū'auhau* or genealogy, which is a history of our ancestors. Kame'eiehiwa (1992) noted that

mo‘okū‘auhau represents 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” (p. 20). A significant and important mo‘okū‘auhau is contained in the *Kumulipo*, a *mele ko ‘ihonua* (genealogical song) that established the sacred lineage of Kalaninui‘āmamao and traced his lineage back to the very beginning of the cosmos. The *Kumulipo* orders the creation of the universe from slime to echinoderms, 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, genealogy or mo‘okū‘auhau lay 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*, as it recounts the birth of the Hawaiian islands beginning with Hawai‘i. According to *Mele a Paku‘i*, Kaua‘i is called Kamāwaelualani, an older *inoa ‘āina* (land name) found only in performance cartography.

Yet another genealogical map is *Ka Mele a Kahakuikamoana*. The performer, Kahakuikamoana, chanted the following lines from a much longer text describing the birth of the Hawaiian Islands beginning with the island of Hawai‘i. Here are the lines describing 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 most highest lineage

(Fornander, 1916, p. 5; translation by K. Akana)

As a result of Kaua‘i’s high pedigree in the birth of islands, it was often the *wahi pana* (storied place) and stage for mo‘olelo such as the following: Hale‘ole’s (1861) *Lā‘ikekawai* and *Ka‘ililauokekoa*; Hīnau’s (1861) *Ka‘ililauokekoa*, and Ho‘oulumāhie’s (1905-1906, 1909-1910) *Hi‘iakaikapoliopole* and his story of *Kawelo*. Their work comprises the largest archive of performance cartography in Hawai‘i.

‘Ōlelo No‘eau as Performance Cartography.

In his performance of *Ka Mele a Kahakuikamoana*, Kahakuikamoana established the pedigree of Kaua‘i island as “pua ali‘i” and “huihui ali‘i a Hawai‘i” thus validating the chiefly ‘*ōlelo no‘eau* (proverb) associated with Kaua‘i:

Hānau ke ali‘i i loko o Holoholokū,	The child of a chief born in
he ali‘i nui;	Holoholokū is a high chief;
Hānau ke kanaka i loko o	The child of a commoner born
Holoholokū he ali‘i nō;	in Holoholokū is a chief;
Hānau ke ali‘i ma waho a‘e o Holo-	The child of a chief born outside
holokū, ‘a‘ohe ali‘i, he kanaka ia.	of the borders of Holo-
	holokū is a commoner

(Puku‘i, 1997, p. 56)

The Holoholokū referred to in this ‘*ōlelo no‘eau* was a temple complex built by the voyager-chief, Mo‘ikeha, at the base of Pu‘u Kī, a hill that was part of a coastal system that stretched from Hanamā‘ulu in the south to ‘Olohena in the north. It is said that Mo‘ikeha installed Hāwea and ‘Ōpuku, sacred drums that his son La‘a brought back from *Kahiki*, in Holoholokū. These drums announced the birth of royal children and were struck in concert with the *pōhaku kīkē* (bell stones), phonolite boulders that still stand on the upper ridge known as Ke Kuamo‘o Loa a Kāne (The long backbone of the god Kāne).

According to oral tradition, Kaumuali‘i, the beloved Kaua‘i high chief, was the last king born at Holoholokū. His high-born son, Keli‘iahonui, was also given birth there as well as Humehume, a son born of a common woman. According to the proverb that stated that “A child of a commoner born in Holoholokū is a chief,” Humehume, indeed, was born a chief. Known to American writers as George Prince, George Prince Kaumuali‘i, Tamoree, or Kumoree, Humehume was sent away for an education which failed. Fortunately, he eventually found his way back home along with the first American missionaries. An interesting and more detailed history of Humehume can be found in Warne (2008).

Lastly, it should be noted that the sacred and royal significance of Holoholokū extended beyond Kaua‘i. In particular, the Naha Stone that Kamehameha lifted to demonstrate his eminent control over the island chiefdoms came from this very sacred place of Holoholokū. The *piko* (umbilici) of the Naha chiefs of Hawai‘i Island were placed under this stone. Kamehameha’s lifting of this Naha Stone was a significant and important *hō‘ikena* or performance in history. Upon lifting the stone from Holoholokū, Kamehameha uttered another ‘ōlelo no‘eau:

Ua ‘oni ‘o Naha Pōhaku ia‘u, e ‘oni ana nā moku ia‘u, a ua ne‘e aku ho‘i
‘o Naha Pōhaku ia‘u, a e ne‘e aku ana ho‘i wau a hiki i ka manawa e ne‘e
ai nā mokupuni a pau ma lalo o‘u. (Desha in Antonio, 1996, p. 120)

The Naha Stone moved for me, the islands will move for me, the Naha
Stone will move for me, I will move until such time that all islands will
move below me. (K. Akana, Trans.)

Thus, ‘ōlelo no‘eau as performance cartography not only indicated sacred sites; it also reaffirmed relationships, commemorated history, and located historic ancestors in both time and space.

Mahele ‘Āina as Performance Cartography.

Following performances of genealogy were dances and stories honoring and remembering the chiefs. In the mo‘olelo of *Kawelo*, the hero-chief returns to Kaua‘i to depose his cousin, ‘Aikanaka, who usurped his right to rule and who treated his parents with malevolence. Kawelo is victorious and apportions the island by *mahele ‘āina* (land division) thusly:

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‘oulumāhie in Perreira, 2009, p. 357).

The mahele ‘āina of Kaua‘i can be viewed here as local climate maps. For example, the Ko‘olau district found on Kaua‘i, O‘ahu, and Maui are all on the windward side that receive tradewinds and more rainfall than other mahele ‘āina. Puna on Kaua‘i and Puna on Hawai‘i are exposed to south easterlies and have lush vegetation but are not as wet as the Ko‘olau. Kona districts are on the leeward side of the island and are drier. Mahele ‘āina as performance cartography provide insights into climate patterns and expected weather conditions of the land. Louis (2008, p. 72) wrote that “Hawaiian place names tell us a great deal about Hawaiian spatial understanding; i.e., how environmental phenomena are organized and understood” (p. 172). As a final point here, mahele ‘āina organized environmental phenomena for our ancestors.

Mahele ‘āina changed over time. By 1882, the Royal Genealogy Board of Hawai‘i recorded an additional district, Ha‘alelea, for Kaua‘i:

No Puna mai Kahoea a hiki i Anehola, na palena o Puna
 Mai Anehola a hiki i Kilauea na palena o Koolau
 Mai Kilauea a hiki i Milolii na palena o Haalelea.
 Mai Milolii a Kahoea pale o Kona.
 (Poomaikelani, 1882, p. 36)

As for Puna. From Kahoea to Anehola are the boundaries of Puna.
 From Anehola to Kilauea are the boundaries of Koolau.
 From Kilauea to Milolii are the boundaries of Haalelea
 From Milolii to Kahoea are the boundaries of Kona.
 (K. Akana, Trans.)

Another interesting piece of information was the list of mahele ‘āina types documented by the Royal Genealogy Board of Hawai‘i. At their April 1, 1882 Minutes, Secretary J.A. Nahaku recorded this after the board considered the boundaries of Kaua‘i:

Ma na mokupuni nui a pau o keia pae aina, ua mahele ia ka aina i mau moku, i mau kalana, i mau ahupuaa, i mau ili, i mau Ku, i mau Lele, a pela wale aku. A o na mokupuni uuku iho, e like me Lanai, Kahoolawe, ame Niihau, aole pela. O ka mokupuni nae o Lanai, ua maheleia i mau ahupuaa waleno. Aole hoi pela na moku liilii e ae.

(Poomaikelani, 1882, p. 36)

On all of the major islands of this archipelago, the land is divided into moku, kalana, ahupua'a, 'ili, Kū, and Lele, etc. On the smaller islands like Lāna'i, Kaho'olawe, and Ni'ihau it is not so. However, on the island of Lāna'i, it is only divided into ahupua'a. This is not so on the smaller islands.

(K. Akana, Trans.)

These mahele 'āina were useful when the Kuleana Act was enacted in 1850 and were incorporated into western cartography. For example, in Kuleana Helu 4731, Kamehameha V granted allodial rights to Makuakane which he transferred to his son and later to my great-grandmother. In this small section of the document, the following names are used: (a) *ahupua'a*, a land division usually extending from mountain to sea; (b) *moku*, a district; and, (c) *'ili*, a land section and subdivision of an ahupua'a. They are underlined in the partial reproduction of the document below:

Kuleana Helu 4731

No laila, ma keia Palapala Sila Nui, ke hoike aku nei o Kamehameha V, ke Alii Nui a ke Akua i Kona lokomaikai i hoono ai maluna o ko Hawaii Pae Aina, i na kanaka a pau i keia la nona iho, a no kona mau hope alii, ua haawi aku oia, ma ke **Ano Alodio** ia **Makuakane** i kela wahi a pau loa ma Anahola Koolau ma ka Mokupuni o **Kauai** penei na mokuna:

1. Ili o "Hanapaa." E hoomaka ana ke alanui ma kahi pahu laau alaila aku. Akau 3° Hi 1 80/100 kaul e pili ana i ke alanui

" Hema 88° Ko 1 40/100 "

" kula

" Hema 3° Ko 1 90/100 "

"Konohiki Loi

" Akau 83° Ko 1 40/100 "

" kula. E ili ana 1 Ruda

These mahele ‘āina defined space for Hawaiians even before the arrival of Western cartography, and, in a way, shaped mapping in Hawai‘i. Today, Geographic Information Systems (GIS) technologies enable the fusion of performance cartographic knowledge with digital mapping. An example of this fusion is an aerial view of the ‘Ili of Hanapa‘a in Anahola (Figure 1).

Figure 1. Google Map of Kuleana in Anahola, Kaua‘i



Figure 1. Polygon is added shows ‘ili (small land division) called “Hanapa‘a.” Square shaped portion is a *lo‘i kalo* (taro cultivated plot). The house plots are not shown. Retrieved from <http://maps.google.com/maps?hl=en&tab=wl>.

Inoa ‘Āina as Performance Cartography

Kona, Puna and Ko‘olau are mahele ‘āina and also *inoa ‘āina* or land names found throughout Polynesia as Tonga, Puna, and Tokelau respectively. These names and others harken back to genealogical and physical roots in the cradle of Polynesia such as Olohena on Kaua‘i to Olosega in Sāmoa or ‘Ūpolu on Hawai‘i to ‘Ūpolu in Sāmoa. Waimea and Hanalei in Kaua‘i and Waimea and Whangarei in Aotearoa (New Zealand) 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 the open

ocean.” Thus, inoa ‘āina as performance cartography encompasses the vast cultural region of Polynesia and is a large study in itself.

Many inoa ‘āina are found only in performance cartography. For example, Kaipuha‘a in “Kūnihi ka mauna” (see p. 4) and Kamae in “O oe ia Wailua-iki” (see p. 7) are not found on maps but are remembered in memory, located, fortunately, with each performance of those chants. When inoa ‘āina do appear on maps, they are appropriated to name other map referents that have little to do with the original naming. For example, Pu‘ukapele from the “Hula Pele” (see p. 9) now names a forest reserve on Kaua‘i. However, Pu‘ukapele was once the volcanic home of Pele and her clan until the flood waters of Nāmakaokaha‘i forced them to move from island to island until they eventually settled on the high mountains of the island of Hawai‘i.

Closely associated with inoa ‘āina are wind and rain names. Nakuina (1902/1991) recorded over 40 names of *aina makani* (land winds) of Kaua‘i (pp. 58-60). Most of these were coastal winds and breezes that assisted fishermen and navigators. The interior winds and breezes of Kaua‘i were recorded by Poepoe (1908-1911). Silva (2010) compiled and annotated 279 wind names of Kaua‘i, Nihoa, and Lehua that appeared in Poepoe’s publication. That is a staggering inventory that paper maps would find difficulty rendering.

Even the names of ponds, rivers, and even waterfalls are named and remembered in performance. A particular kind of trickling waterfall called *wai hī was* Waikū‘auhoe, located on the cliffs of Nāpali, Kaua‘i. Waikū‘auhoe was where “Fishermen placed their paddle handles (*kū‘au hoe*) against the cliff and drank the trickling water” (Puku‘i, Elbert & Mo‘okini, 1974, p. 224). This waterfall was remembered when Queen Emma toured Kaua‘i in 1871 as “ka Waikuauhoe a ka lawaia [The paddle handle water of the fisherman]” (“Ka huakai,” 1871). The Dowager Queen Emma celebrated the birthday of her late husband, Alexander Liholiho or King Kamehameha IV, at Lāwa‘i, South Kaua‘i. After a day of festivities, the names of the famous waters of Kaua‘i were recalled and remembered much in the tradition of the composers of old when they indulged in riddling, contests of wit, and in composition. It happened that so many of these “water” names were recalled that it made the pen of the writer dizzy (a *hooponiuniu hoi i ka maka o ka peni o ka mea kakau*). This level of detail cannot be accommodated by western

cartography and, certainly, the level of enjoyment and entertainment this naming activity provided, cannot be matched.

Hei as Performance Cartography

The traditional performance program now shifts to themes of land and people. For this reason, hei as performance cartography is presented here as many of the figures reflect the people's love for the land. 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 identify the geographic locations described in the chant. Dickey (1928) noted this of Hawaiian string figures: "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).

The following examples of hei as performance cartography include a discussion of *mele pana* and their expressions of love for the land as well as descriptions of the movements and semiotics of string figures.

Mele pana – Place name chants.

Mele Pana are chanted maps that described *wahi pana*, a term translated as "celebrated places," "storied places," and "legendary places." The late scholar, Edward Kanahele, 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* (in James, 1991).

Oliveira (2006) referred to *wahi pana* as the "genealogy of places" (p. 263), explaining that places have genealogies:

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).

Additionally, both Kanahele 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.

I now unravel my ball of string. I cut a piece one *anana* (a fathom) in length and tie a knot chanting, “E Kana, E Kona, E Pili, E Pa‘a.” I place the loop on my hand in reverence as I chant and recreate a memory—a memory of built places now gone and of natural and sacred spaces still standing.

Mele Hei (string figure chant)

Wailua nui lanai	Great Wailua hump
E ku i ka maka o Uluena.	That stands in the eye of Uluena.
O Huluena la o ka Manuena	Huluena and Manuena
O Makakii ka waena.	And Makakii between.
O Nounou, O Aahoaka.	O Nounou O Aahoaka.
O kuamoo loa o Kane.	O long mountain trail of Kane
(Dickey, 1928, pp. 56, 58)	

The geographical features described in the chant remain still. 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 woman of Kōloa, Kaua‘i named Kini ‘Āinakē, who chanted this mele pana and who showed him the progressive figures of *Wailua Nui Lanai*. Dickey was a land surveyor by profession and he conducted a search for the places mentioned in the chant. As evidenced by the description below, the hei figure served as his physical map and the mele pana served as his chanted map. He reported his findings to the Kaua‘i Historical Society as such:

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 cats cradle 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).

Obviously, both the mele pana and the string figure helped Dickey locate the positions of the sacred places of Wailua and their relationships to one another. There are two bent loops or “arms” at the top of the figure and stretched over a central diamond in the string figure (Figure 2). This central figure represented Makaki‘i, literally the “source of the images.” Makaki‘i was the central temple of a complex where chiefs were born and possibly related to the present Maka‘ūkiu *heiau* (temple) or, as Dickey surmised, Holoholokū. The “arms” or “hills” of the figure located Hulu‘ena and Manu‘ena temples where feather gods were kept (R. Wichman, personal communication, October 22, 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 Ka‘alaehuapī, the chief ‘ālae or mud hen, to reveal fire making to him.

In Figure 2 of *Wailua Nui Lanai* the arms of the figures are hills where the *heiau* (temples) were located and can be easily overlaid over Figure 3. To show Nounou and ‘A‘āhoaka, the stringer reinserts the index fingers under the arms of the figure and pulls gently apart to reveal two prominent hills of Wailua, shown as vertical loops in Figure 4.

One of the hills, Nounou, is known today as “The Sleeping Giant.” In Kaua‘i island’s oral tradition “The Sleeping Giant” is Puni, a *pilikua* (giant), who fell asleep there in ancient times. This Nounou is the same hill that Hi‘iaka chanted of in “Kūnihi ka Mauna” (see page 4). Nounou was also the stronghold of ‘Aikanaka, the cousin and nemesis of Kawelo, whom I referred to in the discussion of the mahele ‘āina.

‘A‘āhoaka hill can be viewed from Poli‘ahu temple, which has been restored and is situated on top of the mountain ridge called Ke Kuamo‘o Loa a Kāne. It is the v-shaped space above the central feature in Figure 2. Ho‘omanawanui (2013, p. 214) reported that a story about ‘A‘āhoaka was published in *Ka Nupepa Kuokoa* in 1877 and tells of ‘A‘āhoaka’s miraculous birth, to his father, Kalalea, and his mother, Koananai now seen as the two mountain peaks of Anahola.

Figure 2. Hei Figure for *Wailua Nui Lanai*.



Figure 2. Mrs. Kini ‘Ainakē of Kōloa performing *Wailua Nui Lanai*. The “arms” in the upper figure correspond to the hills shown in Figure 3. L. Dickey photo courtesy of Kaua‘i Historical Society.

Figure 3. Photo of Wailua Nui Lanai.

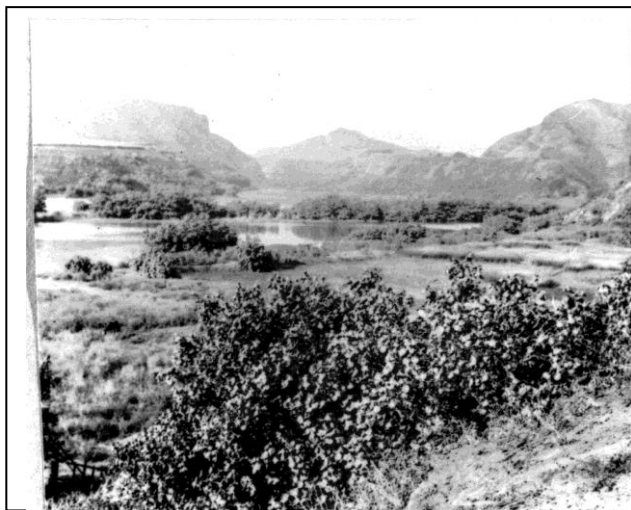


Figure 3. Kapu Hill (left), the probable site of Hulu‘ena; ‘A‘āhoaka hill (center), and Mopua Hill (right), the probable site of Manu‘ena. L. Dickey photo courtesy of Kaua‘i Historical Society.

Figure 4. ‘A‘āhoaka and Nounou Hills



Figure 4. Mrs. Kini ‘Ainakē transforms *Wailua Nui Lanai* into the two hills of ‘A‘āhoaka (left) and Nounou (right). L. Dickey photo courtesy of Kaua‘i Historical Society.

When the entire string figure showing these two hills is turned over, the ridge or “long backbone” is revealed, again, referring to the ridge called Ke Kuamo‘o Loa a Kāne or Kuamo‘o, for short. This now-inverted string figure is also called *Kulanihaa* [possibly Kūlanihaka or Kūlanihāko‘i] after the name of a chief whose house was located near a spring called Makena. This spring can be formed by pushing the tips of the two hill loops together thus forming a diamond-shaped spring. Collectively, the string figures of *Wailua Nui Lanai* served as a map of (a) the two hills locating Ulu‘ena and Manu‘ena heiau and a central area for Makaki‘i in Figure 1, (b) the two hills of ‘A‘āhoaka and Nounou in Figure 4, (c) the ridge called Ke Kuamo‘o Loa a Kāne, (d) the location of the famous house of Kalanihaa, and (d) the spring of Makena.

From all approaches to Wailua Nui, the awe inspiring vistas of the “hunchbacked” mountain and hill peaks of Wailua demonstrates that Wailua is, indeed, a well-storied and cultural center of Kaua‘i. Through gesture and symbol, the mele pana and string figures helped both performer and audience to embed these sacred sites into the collective

memory. The gesture and movements of hei augmented the chanted text and physically represented both sacred space and *aloha ʻāina*, the love for the land.

This hei performance now moves from the mahele ʻāina of Puna to the lee or Kona side of Kauaʻi. At a dry and arid place called Mānā dwelled the god of mirages, Limaloa. The following is the largest string figure made in Hawaiʻi and is made by two people.

Kauhale o Limaloa. On the last four nights of the lunar calendar named Kāne, Lono, Maui, and Muku, the god Limaloa built homes for the expected and cyclical return of the spirits of ancestors. The four corners of the hei figure shown in Figure 6 indicate the following ideas: a) homes for the returning spirits; b) the four traditional gods Kāne, Kanaloa, Lono and Kū; c) the four lunar nights – Kāne, Lono, Maui, Muku; or d) the four corners of the coastal plain of Mānā, Kauaʻi in Figure 5.

Mele Pana

Mele Hei, Kauhale a Limaloa

Kauhale a Limaloa.	Village of Limaloa
Kukulu kauhale a Limaloa	Limaloa is building his village
I ka liʻu la,	in the mirage,
Hookuene ana i ke kaha o Ke-alialia	Arranging the houses in lines on barren, sun-baked land.
Holo ka wai lana i ka aina	The mist spreads over the land
a pau e	and is gone.
A pau la.	All is gone.
(Dickey, 1928, p.148)	

Figure 5. Western section of Kauaʻi.

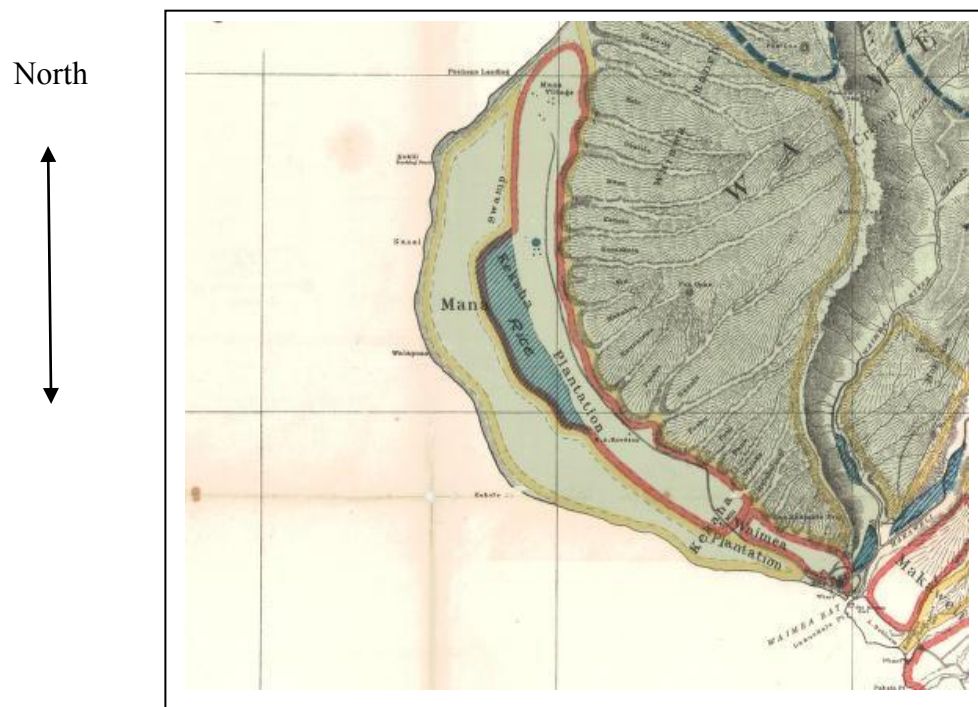


Figure 5. 1903 Hawaiʻi Territory Survey by Walter Wall. Retrieved from http://alabamamaps.ua.edu/historicalmaps/us_states/hawaii/index2_1900-1910.htm.

Figure 6. Hei figure, *Kauhale a Limaloa*.

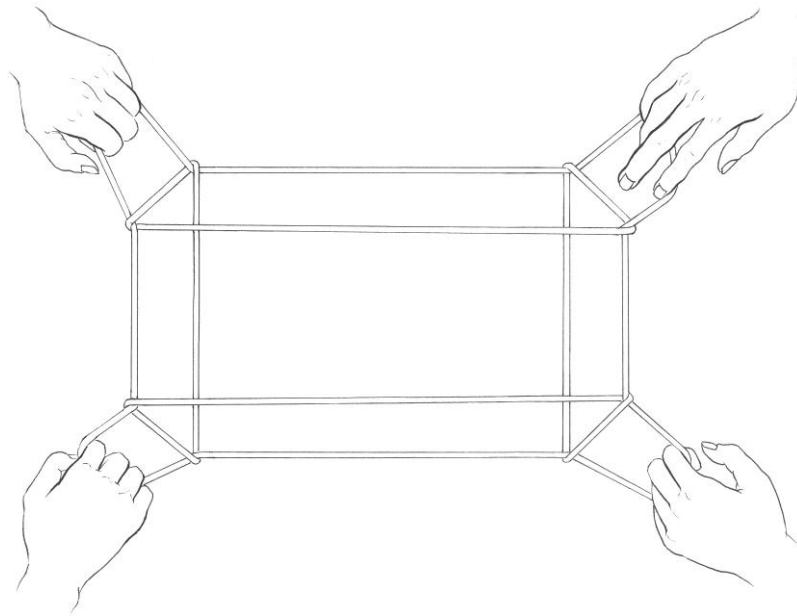


Figure 6. Two people are needed to form *Kauhale a Limaloa*. The figure can be transformed into a whale, a mountain, a volcanic pit, and a star. Drawing by Kimberlie Wong.

When the four triangles represented the four corners of Mānā, the central rectangle of the figure indicates an old strip of swampy land once located in the center of Mānā and remembered as *Ke Kaha o Keālia*. Puku‘i and Elbert defined *ke ālia* as “salt encrusted places with cool springs” (1986, p. 20).

In Figure 5, the darkened and oblong shape near the coast was a large marsh used for rice cultivation in the 1900s and corresponds to the central rectangle or “ke kaha o Keālia o Mānā” in *Kauhale a Limaloa*. Today, the salt ponds of Kekaha are but a vestigial part of this section known as “Ke kaha o Keālia o Mānā,” from which we get the name “Kekaha.”

The central rectangle in Figure 6 represents “Kekaha o Keālia o Mānā” which corresponds to the dark, oblong section in 1903 map (Figure 5). The four triangular corners are four homes constructed by Limaloa. The corners also represent the four

corners of Kekaha, Kaua‘i. Constructing *Kauhale a Limaloa* required two people who chanted as they worked to form the base figure.

The use of triangles in a string figure to indicate land division is not new. In the traditional Hawaiian homeland of Kahiki (Tahiti), the string figure, *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). In *Kauhale a Limaloa*, the four triangles indicated where the four gods named Kāne, Kanaloa, Kū, and Lono dwelled; the corners also represented the four corners of Mānā or more fully, Kekaha o Mānā.

The base figure of *Kauhale a Limaloa* can be transformed into a triangle with two triangles within it. When the mele pana is chanted, the triangular figure is used to represent mist. This mist is what caused mirages to disappear, and when “a pau ē, a pau la” (“all is gone”) was chanted, a special string of the figure was pulled, causing the mirage-homes to disappear with each performer holding its own string.

Like other hei and mele pana, *Kauhale a Limaloa* can be transformed into what Dickey called *Kuahiwi* (Mountain). Another transformation occurs by narrowing 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 figure is the same for the Māori and was called *Te Tohorā* (Anderson, 1979, p. 140).

Dickey (1928) mistakenly gave *Kauhale a Limaloa* alternate names: *Hale o Pele* (House of Pele), *Kuahiwi o Haleakala* (Mountain of Haleakalā), and *Hale Inikini* (Indian House) and is perplexed that the latter does not look like the figure at all (p. 148). He may not have known that by manipulating the central, parallel strings of the figure, the four named figures were made, and they were not the same figure.

By pinching and lifting all corners upwards, *Kuahiwi o Haleakala* (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 releasing one side of the giant rectangle and pinching the central strings upwards to form a teepee. The same variations of the string figure is also constructed by the Māori and named *Te Whare Kēhua* (Ghost House), *Te Rua Kūmara* (Sweet Potato Pit), and *Te Motu Tohorā* (Whale Island) respectively.

Note the similarity between the spirit houses of Limaloa and *Te Whare Kēhua* or ghost houses, as well the reverence to Kanaloa in *Te Motu Tohorā*. Te Enata Henua of Hiva‘oa in the Marquesas called the base figure, *Hahaua* (great sting ray) and the people of Maupiti call it *i‘a* (fish) (Handy, 1925, p. 49). I have seen a performance of a Tahitian version of *Hahaua* on the island of Mo‘orea in French Polynesia. The woman manipulated the figure herself using her hands, feet, and teeth as “helpers” as she sang a beautiful story of her island and the relationship of the island’s people to hahaua. I wish I had video recorded it. All I have is this memory but my memory of *Hahaua* is a prime example of the effect of performance cartography. Although the performance was transient, the cartographic effect was permanent and lasting.

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). The wide dispersion of Kauhale a Limaloa in the Pacific demonstrated the sensitivities of ocean faring, island peoples who shared similar spatial understandings and affections.

From the district of Kona, I now travel around the precipitous region of Kaua‘i and arrive at the district of Ko‘olau on the wetter side of the island. I arrive at Kē‘ē. Kelly (1980) wrote that “The most famous site associated with *hula* instruction (*hālau hula*) in the Hawaiian Islands is at Kē‘ē, Kaua‘i” (p. 95).

Pali o Ke-e. Dickey reported that Hi‘iaka took Lohi‘au to Kē‘ē after bringing him back to life (p. 130); however, Lohi‘au was only kept in a cave on the cliff of Kē‘ē. This cliff was guarded over by two *mo‘o*, supernatural dragon-like beings. Hi‘iaka and her companion, Wahine‘ōma‘o, had to climb this *pali* (cliff) and do battle with these *mo‘o* before they could access the cave where Lohi‘au’s remains were kept (Ho‘oumāhiehie, 1906-1906, pp. 176-184).

Pali o Ke-e shows a vertical loop at the left side of the figure with another smaller loop attached to it and the upper runner. This loop could stand for several things: (a) the overhang of the cliff; (b) Lohi‘au’s hovering spirit; or (c) Lohi‘au’s waving hand. Ho‘oumāhiehie’s “Hiiakaikapoliopole” offers an intriguing explanation of (c):

Wahiōma‘o turned and gazed up at the cliff as per her friend’s
[Hi‘iaka] command. Peering, she saw a hand waving from inside a cave at
the middle of the cliff. She could only see the hand, so she spoke to her

friend, saying, “There is someone waving from the midpoint of the cliff. I can only see the arm, though. I cannot see the body. How in the world did he get there?”

Hi‘iaka responded, “That is our man [Lohi‘au] waving. That is his spirit beckoning. We have no husband now, for he is dead. The spirit of this husband of ours was taken by Kilioeikapua and Kalanamainu‘u, the mo‘o women of this cliff-bound land” (Nogelmeier, 2008, p.169).

As performance cartography, *Pali o Ke‘e* not only remembers Kē‘ē and its association to the story of “Hi‘iakaikapoliopole” but also (a) the house terrace of Lohi‘au, (b) the *pōhaku piko* (umbilici rock) of Kilioe below (c) the heiau of Ka Ulu a Pā‘oa, (d) Ke-ahu-a-Laka, the site of a major *hālau hula* or hula academy, and, finally, the firebrands of Makana (Kelly, 1980, pp. 1101-118).

As I continue my journey in the Ko‘olau districts of Kaua‘i, I come to a picturesque white sand beach between Wainiha and Hanalei Bays. This beach, Lumaha‘i, was made famous in the movie, “South Pacific.” Lumaha‘i had another kind of fame as retold in the following performance of *Hula Lumahai*, a well-known string figure of Kaua‘i whose opening is also the name of that movement (Puku‘i, 1986, p. 215).

Hula Lumahai. The beauty of Lumaha‘i inspired at least five different chants in former times. The first chant and story alludes to a robber named Kapua‘apīlau who lived at Kealahula which means “frequented and well-known path” (Puku‘i & Elbert, 1986, p. 17). At times, the path was covered by the sea, so when it cleared, travelers would cross over from Lumaha‘i to Hanalei. Kapua‘apīlau would lay in wait for travelers using Kealahula. His watchman waited on a little hill and would make a cry, apparently innocent, to tell Kapua‘apīlau if the travelers were too strong in numbers. If the travelers were few in number, the robber would “kill the travelers and throw the bodies in a hole in the rocks, whence they were carried to sea” (Dickey, 1928, p. 95).

The second chant is the same chant used for the figure, *Na Kanaka Alualu Kai o Leahi* which depicts two rocks on the island of Ni‘ihau. According to Kalua Keale, the rocks appear to be rushing towards the sea (Tava & Keale, 1998, p. 92). The figure can be manipulated to show the rise and fall of the sea.

The third chant, “Waawaa iki naaupo,” alludes to a well-known and humorous story from Kaua‘i. The earliest Hawaiian language version appeared in *Ka Nupepa Kuokoa* (“He wahi moolelo,” 1902) and later version in Fornander (1919, p. 422). It was later retold in English by Wichman (1997, pp. 113-117) who renamed the two brothers, Wa‘awa‘aikina‘auao and Wa‘awa‘aikina‘aupō, as Featherhead (older) and Birdbrain (younger) respectively. In the Hawaiian versions, the older brother outsmarts the younger and convinces him to hand over to him all birds *i puka ka nuku* or with holes in the beak (nostrils). They were bird catchers by profession and needed to fill a quota of feathers that could be woven into fine cloaks and finery for the *ali‘i* (chiefs). Sensing a loss at never finding birds without nostrils, the younger brother sticks feathers to his body and calls the older in a scary voice. Terrified, the older brother runs away leaving the large collection of feathers to Wa‘awa‘aikina‘aupō. Puku‘i and Elbert (1986) define “wa‘awa‘a” as stupid or ignorant and make reference to *Wa‘awa‘a-iki-na‘aupō* as “ignorant stupid one [name of a legendary simpleton]” (p. 375). The string figure is shaped like a *wa‘a* or canoe and is a playful and probable connection to the story.

He Kanaka A, Ana Paakai, or Hale Paakai. Dickey (1928) stated that this figure was “one of the most popular of Hawaiian string figures” (p. 104). Its attraction is its beauty, symmetry, and mechanical nature. The upper portion has an intricate lattice-like structure and the lower portion forms a doorway. Upon completing the design, two lateral strings can be pulled to open or shut the door. This door is manipulated at the appropriate time when chanting the following recording by Mary Puku‘i:

He kanaka, he kanaka

<i>He kanaka, he kanaka</i>	A man, a man
<i>Eia a‘e</i>	He approaches.
<i>He aha kō ka lima?</i>	What is in his hand?
<i>He ‘ole.</i>	Nothing,
<i>Pani ‘ia, pani ‘ia</i>	Close, close
<i>Ka puka o ka hale o kāua</i>	The door of our house.
<i>He kanaka, he kanaka</i>	A man, a man
<i>Eia a‘e</i>	He approaches.
<i>He aha kō ka lima?</i>	What is in his hand?

<i>He poho pa‘akai</i>	A container of salt
<i>Wehe, wehe ‘ia</i>	Open, open
<i>Ka puka o ka hale o kāua.</i>	The door of our house.
(Bishop Museum, 1999, CD)	

This figure appears to be an anomaly. First, *Hale Paakai* (Salt House) or *Ana Paakai* (Salt Cave) are non-existent in traditional society. Salt was plentiful and gathered from evaporated tide pools or man-made salt ponds. Second, hospitality was paramount in the Hawaiian culture and a visitor would never be turned away. However, Dickey (1928) gives an explanation of the figure that raises an intriguing connection:

Two live in a house or cave who do not care to entertain beggars. If a man approaches bearing a gift, he is welcome, if not the door is shut in his face. “Salt” in the chant and title stands for anything of value, for salt was something people often to travel far to get. The title perhaps means a “wealthy home.” (p. 104)

Here, Dickey hints at more plausible explanation for the *He Kanaka*. The two who live in a cave appear to be *‘ōlohe* (skilled fighters) who preyed on travelers for their livelihood. Just as Kapua‘apīlau in *Hula Lumaha‘i* had a watchman, this *Hale Paakai* story has a watchman who calls “A man, a man. He approaches,” and a person lying in wait who asks, “What is in his hand?” Here “container of salt” is code for treasure or something of value. The traveler is permitted to enter so that the two robbers can pounce upon him and take what is of value. If the traveler has nothing, the trail is blocked; hence, the chant says, “Close, close the door of the house.”

While the questions differ in *Hale Paakai* and *Hula Lumahai‘i*, the code used between watchman and the person lying in wait mark them as robber-themed stories. Another example illustrating this theme is “The Robbers of ‘Ōla‘a:”

The *‘ōlohe* of *‘Ōla‘a* were a band of robbers who lived in caves in the forest. Travelers from Ka‘ū to Puna district, from Puna to Hilo, and from Hilo to Ka‘ū were attacked, killed, and their bodies hidden away by these robbers.

This is how they did it. One of them would climb a tree and look toward the sea. If he saw no one, the spy called, “Tide is out!” If he saw a few

people, he called “Low tide!” If the group was ten or more, he called, “High tide!” and if a large company, “Rough sea!” By this means the number of those coming was made known. If the number was few, they were killed on the road; if a large number, they were invited to the cave to eat and sleep, and a large stone suspended above were dropped down on their heads where they were sitting, and thus they were killed. If the call was “Rough sea!” the travelers were allowed to go on their way.

(Puku‘i & Green, 1995, p. 91)

This story explains *Ana Paakai* or *Salt Cave*. Stories like these and performances of hei like *He Kanaka A*, *Ana Paakai*, or *Hale Paakai* served as danger signs locating places that the travellers of old should avoid.

I now continue my journey and pass Hanalei Bay, Kalihiwai Bay, and circle around Kīlauea Point. I arrive at Anahola Bay and pay homage to the home of my ancestors and the mountain that is the landmark for the families of Anahola—Kalalea.

Kalalea. *Kalalea* is a string figure for the mountain cliff overlooking Anahola, the home of my Akana family. *Kalalea* is the subject of admiration in chant: “Nani wale ku‘u ‘ike ‘ana la e lā i ka luna a‘o *Kalalea*. *How delightful was it to see the heights of Kalalea.*” Between *Kalalea* and *Koananai* was an arch with a hole under it. Unfortunately, the arch 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* of Kohala (Fornander, 1919, p. 224). Older stories say that the primordial bird, Kīwaha, was imprisoned in the valley basin behind the hill and upon hearing raucous humans on the seaside of the mountain, pecked a hole in the mountain to view the activities. The string figure still shows this hole between the mountain peaks *Kalalea* and *Koananai*.

Mele pana

Mele hei

Aloha wale Kalalea noho ma i uka	I pity Kalalea living up the mountain
E pili ana me Koananai	Embracing Koananai
Me Koula i ka malia	While Koula has a calm place.

(Dickey, 1928, p. 111)

A string figure similar to *Kalalea* called *Moua Puta* was created by the people of Mo‘orea in French Polynesia. Their figure also explained how a hole in a mountain was pierced by the spear of an ancient hero (Handy, 1925, pp. 62, 63). *Moua Puta* is called *Te Puta a Vai Ami* on Tautira, a peninsula on the island head of Tahiti. *Moua Puta* is not made in the same way as *Kalalea*, but the memorialization of heroic deeds is strikingly similar. So, too, is the love and appreciation of the land.

At this stage of the performance, I return to Wailua in the district of Puna. Puku‘i (1936) reported that one of her hula masters, Keahi Luahine, said that young children would perform a hula remembering a row of *ki‘i* or wooden images called “Pae kii mahu o Wailua” stationed at the mouth of Wailua River (p. 21). I perform the hei figure *Pae Mahu* instead.

Pae Mahu. These *pae mähū* (hermaphrodites) were wooden images that were found at the mouth of Wailua River. Petroglyphs associated with *Pae Mahu* were also discovered and can be observed at low tide. These petroglyphs are examples of material performance cartography.

An unusual marking on these petroglyph rocks are spirals that are thought to be the only example of humans in this form. The hei figure, *Pae Mahu*, corresponds directly to these spirals of the petroglyph and are shown as connected loops in hei. The Māori string figure, *Māui or The Four Brothers* (Anderson, 1979, p. 122) bears a strong resemblance to *Pae Mahu*. Could *Pae Mahu* have once told of Māui and his brothers? The connection of the petroglyphs to *Pae Mahu* certainly points in that direction.

The *pae mähū* came from Kahiki. According to Wichman (1985), the *pae mähū* were chiefs from the Marquesas who lost a surfing contest with the goddess, Kapo‘ulakīna‘u, and who were consumed by a wave and later turned into stone (pp. 70-

75). An older version of this surfing match can be found in Manu (1899) and is probably the inspiration for Wichman's English language version. In Manu, the male surfers are wiped out by a huge wave and transformed into the pae ki'i. The images and stones may have been related to, or were, the same pae mähū of O'ahu that Puku'i reported to be 12 supernatural male healers from Kahiki whose "wizard stones" can be found in Waikīkī (Puku'i, 1986, p. 8).

According to the Joesting (1998), another name for the petroglyph rocks was the "Eight Brothers of Māui" (pp. 7-8.). Indeed, Māui and his family lived at the mouth of the Wailua River. Earlier, we learned that he coaxed the secret of fire-making from the mudhens living at Manu'ena. Another of Māui's 'uā (feats) was pulling seas together. According to Joesting, when he attempted to pull O'ahu towards Kaua'i while paddling a canoe, his brothers turned back in awe and surprise to see what was happening. Because they disobeyed Māui's command to not look back, he turned them into the eight boulders that make up the petroglyph cluster. However, this story is improbable. First, Māui's 'uā in the *Kumulipo* did not mention this event and his *kupua* (demigod) nature did not give him the power to transform others into rock. Therefore, the Joesting version is probably more myth than tradition. Moreover, there were four Māui brothers, not eight.

Another intriguing connection to *Pae Mahu* lies on the west coast of North America. Aviortal and Sherman (1992) noted that the "The Kwatkiutl string figures also bear resemblance to those of Hawai'i" (p.5). In particular, Aviortal and Sherman were probably speaking of *Pae Mahu*, which begins with the loops on the thumbs just like Kwatkiutl string figures. I have not found any tradition in the Pacific of beginning string figures in this manner. However, the connection to the Pacific Northwest is not farfetched. We know that cedar logs and even stray sea lions and birds from the Northwest arrived in Hawai'i on ocean currents. Could the history and mystery behind *Pae Mahu* be derived from an errant group of male travelers from the northwest coast brought here by those same currents? Could wayward Kwakiutl have been this mysterious group of mähū? The connection is intriguing.

The circuit of Kaua'i is now complete. However, a Hawaiian program would not be complete without a *hula ma'i* (procreation dance) or other formal and proper performance to close with. The string figure *Ha'ikū* would be appropriate here, but since

it not a Kaua‘i example of performance cartography, I have chosen to end with a *hula kuhi* (gesture dance) as one would perform at the feet of an *ali‘i* or chief. It is said that this hula kuhi was performed at the very feet of Queen Ka‘ahumanu when she visited Kaua‘i and was entertained by King Kaumuali‘i. It is a prime example of performance cartography still being performed and remembered.

Hula kuhi

E pua ana ka makani la ‘eā	The wind arises, tra lā
I nā hala o Malelewa‘a	In the pandanus grove of Malelewa‘a
Kui ‘ia e Lupua la ‘eā	Strung together by the Lupua wind
Hālua ‘ala i ka poli	Lying fragrantly on her bosom
Maika‘i ka pua hīnano la ‘eā	The hīnano blossom is fine
Nā pua i Waialoha	As are the flowers of Waialoha
‘Upu a‘e ana ka mana‘o la ‘eā	The thought rises up from within
E ‘ike iā Hālāli‘i	To see Hālāli‘i [on Ni‘ihau, added]
He ali‘i na‘u ke aloha la ‘eā	A chief for me to adore
A he lei no ku‘u lani	And a lei for the Royal One
Ha‘ina mai ka puana la ‘eā	The refrain is told
No Ka‘ahumanu he inoa	For Ka‘ahumanu a name song.
He inoa no Ka‘ahumanu	

(P. N. Bacon, personal communication and instruction, April 1980)

I have now concluded this study of Hawaiian performance cartography. I have employed and demonstrated how mele, hula, mo‘okū‘auhau, ‘ōlelo no‘eau, mahele ‘āina, inoa ‘āina, mo‘olelo, and hei serve as maps of Kaua‘i and that these maps are more than just geographical representations. While they form a unique archive and corpus of Kaua‘i performance cartography, it should be noted here that all islands have their own archive.

Chanting the Landscape:

A Discussion

In the previous program of Hawaiian performance cartography, the chief method of chanting the landscape was *mele pana*, defined as the chanted maps of *wahi pana* or storied places. *Mele pana* located place names and landmarks and *hei* physically demonstrated the spatial relationships and geographic features within the chant. No doubt, *wahi pana* was the source of *mana* or spiritual power of the place being chanted of and that resulted in the *mele pana* being remembered for so long. As an aid to the *mele* being remembered, string figure making became one of many powerful methods 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 and accompanied by hula or by string figures, as previously demonstrated. *Mele pana* that accompanied the making of string figures were usually accompanied by progressive string figures. This practice is consistent with performance cartography found in other islands in Polynesia. When a *mele pana* did not exist, the practitioner told *mo‘olelo* or recited simpler, impromptu ditties to enhance the performance. For example, single figures such as *Hale Pa‘akai* and *Hula o Lumaha‘i* sufficed for the telling of the many stories of *‘ōlohe*, outcast martial arts experts who preyed upon travelers laden with supplies and goods.

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 rarely borrowed and learned string figures 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, then, 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.

Hawaiian string figures, on the other hand, were adopted by other peoples in Hawai‘i, mostly immigrants from Asia who came to work on plantations. In these

segregated plantations for Chinese, Japanese, Filipino and other immigrant workers, hei apparently formed social bridges between people just as the Hawaiian language became a lingua franca to form communication bridges between language communities.

Unfortunately, the use of hei as performance cartography and its other functions diminished as other games and pastimes grew more popular and traditional ones were replaced by western-type games and pastimes. The unfortunate matter, however, is that the pastimes of former years were replaced with electronics and technologies that are used insolation and void of the socialization processes inherent to hei and performance cartography.

Another reason for the decline in hei practice is related to the close dependence on Hawaiian language text as described above. When the Hawaiian language was banned in schools in 1896, a whole generation was suddenly punished for speaking their native language and birthright. The abrupt shift to English had devastating effects on literacy, academic achievement, and the day-to-day livelihood of Hawaiians (Benham, 1998, 194; Kamana and Wilson, 1996). The overthrow of the legitimate government of Hawaiian citizens in 1893 marked the beginning of another kind of separation from the land and sacred places so loved and embodied in the canon of mele pana.

Since hei depended on Hawaiian language text, the trickledown effect of the English-only policy caused hei to decline rapidly. Subjugation of the Hawaiian language led to the subjugation of hei and other performances reliant on Hawaiian. As a result of this subjugation, performance cartography that depended on longer mele pana declined quickly. As a result, only few elders educated after 1896 knew 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: “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.” (Dickey, 1928, p. 12) Fortunately, the photos at the end of Dickey’s book, such as that of Kini ‘Āinakē in Figures 1 and 3, 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. Their string maps are testaments of their deep connection to the land.

The love and connection for the land that Dickey's Hawaiian informants showed reveal and affirm the intention of the old ones to construct and represent space with hei and other media. 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'itea and Tahiti and the *Moua Puta* of Mo'orea were some of the figures that demonstrated this purposeful intent. They confirm a conscious and purposeful intent amongst Polynesians to construct maps with hei.

Furthermore, there are many other hei from other islands of the Hawaiian archipelago that serve as "maps." These hei cannot be discussed fully here but deserve brief mention to demonstrate how widespread this performance cartographic practice was in Hawai'i. *Waiū o Lewa*, a string figure from O'ahu, was translated as *Dangling Breasts* by Dickey because it displayed two dangling loops that resemble breasts and are *lewa* (suspended). 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. In the performance epic of *Hi'iakaikapoliopele*, Lewa sends winds and rain to buffet Hi'iaka and prevent her from entering into her domain (Nogelmeier, 2008, p. 157). Lewa observed Hi'iaka from her high vantage point in a cave on the limestone bluff. In that cave were two stalactites that resembled breasts that oozed a milk-like substance, probably calcium carbonates. These stalactites are the *Waiū o Lewa* or Breasts of Lewa.

Through my research in Hawaiian performance cartography, I was able to recognize that *Waiū o Lewa* were the breast-like stalactites of the goddess Lewa. Hawaiian performance cartography also helped me to recognize that the string figure named *Kanukuokamanu* was more than what Dickey defined as the "beak of a bird." Rather, *Kanukuokamanu* is a map showing the mouth of the Wailoa River in Hilo with *Kanukuokamanu* on the Pi'opi'o side and 'Ōhele on the other.

Finally, 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 Lanai 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 can also serve to construct our personal and social identities as Hawaiians (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, by decolonizing old views and misconceptions of hei as “mere pastime and game,” we can begin the process of recognizing the academic and cultural worth of Hawaiian string figure making. Thus, hei with its meaning “to snare” has the power to ensnare and recapture our imagination and creativity.

Ha‘ina ‘Ia Mai Ana Ka Puana: A Refrain and a Conclusion

Another Kaua‘i story takes place at Kē‘ē on the Ko‘olau side of the island. In the epic performance of “Hi‘iakaikapoliopole,” Hi‘iaka was sent to fetch Lohi‘au as a husband for her elder sister, Pele, but discovered that he is dead. His remains are retrieved from the cliffs of Kē‘ē and his body positioned in a longhouse according to an elaborate floor plan outlined with *lei* (garlands) of symbolic greenery and foliage that stretches from corner to corner and that formed lines corresponding to the ancient meridians of Kanaloa, Kāne and Wākea, meridians similar in aspect to the Tropics of Capricorn and Cancer and the equator. Hi‘iaka performs her rituals on the prescribed nights of Kanaloa, Kāne, Lono, Muku, Hilo, Hoaka, Kū and ‘Ole.

A detailed ritual map with its symbolic beauty and imagery was fully described by Ho‘oulumāhie (2008) in *Hi‘iakaikapoliopole* (Rev. ed., pp. 187-189). This ritual map reflected the possible presence of Orion above at the time of Lohi‘au’s revival (L. Kame‘eleihiwa, personal communication, July 28, 2009). The configuration is also reflected in the string figure for Nā Kao, known in the west as the Belt of Orion and renamed by the Polynesian Voyaging Society as *Ka Heihei o Nā Keiki*, “*The Cat’s Cradle of the Children*” because of its resemblance to the string figure:

The string figure which the configuration of stars most closely resembles goes by the names of "hoku" ("star"), "spider," or "kohe ekemu" ("embrace me"), a continuation of the figure "po" ("night," which represents a starry night and allows the player to make the stars appear, as in the evening, and disappear, as at dawn). Both figures, "hoku" and "po," were made on all the Hawaiian islands. "Spider" is an appropriate name since this figure travels along the celestial equator, which was called Ke Alanui o Ke Ku'uku'u, or "The Roadway of the Spider"

(Polynesian Voyaging Society on-line community, 1999/2008)

The connection is intriguing. If true, the string figure also served as a 'map' of the stars. But that is another story to revive and tell.

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 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 by recognizing the varied and creative performance cartographic practices of our people. Through hei, our kūpuna not only chanted the landscape but also captured those memories in the string figures with fibers that connect back to our ancestral homeland of Kahiki. Through mele, hula, inoa 'āina, mahele 'āina, 'ōlelo no'eau, mo'okū'auhau, and other performance cartographies not described here, 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.
- Averkieva, I. P., & Sherman, M. A. (1992). Kwatkiutl 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.
- Bishop Museum. (1999). He kanaka, he kanaka. [Recorded by M.K. Puku'i]. On *No nā kamali'i*. [CD] Honolulu, HI.
- Desha, S. L. (1920-1924). Reprinted from *Ka Hoku o Hawaii*. In Antonio, L. (Ed.) (1996). *He mo'olelo ka'ao no Kekūhaupi'o: Ke koa kaulana o ke au a Kamehameha ka nui*. Hilo, HI: Hale Kuamo'o.
- 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 I* (Shelf B-20, MS-2, Box 1). Līhu'e, Kaua'i, HI: Kauai Historical Society.
- Dickey, L. (1928). *String figures from Hawai'i*. Honolulu, HI: Bishop Museum.
- Fornander, A. (1916). *Fornander collection of Hawaiian antiquities and folklore. Memoirs of the Bernice Pauahi Bishop Museum. Volume IV*. Honolulu, HI: Bishop Museum.
- Fornander, A. (1919). *Fornander collection of Hawaiian antiquities and folklore. Memoirs of the Bernice Pauahi Bishop Museum. Volume V*. Honolulu, HI: Bishop Museum.
- Handy, W.C. (1925). *String figures from the Marquesas and Society islands. Bulletin 18*. Honolulu, HI: Bernice P. Bishop Museum.
- Harley, J. B. & Woodward, D. (1987). *The history of cartography. Volume 1*. Chicago, IL: University of Chicago Press.
- He wahi moolelo. (1902. June 27). *Ka Nupepa Kuokoa*.

- ho‘omanawanui, k. (2013). Hanohano Wailuanuiaho‘āno: Remembering, recovering, and writing place. *Hūlili: Multidisciplinary research on Hawaiian well-being*. Honolulu, HI: Kamehameha Schools.
- Ho‘oulumāhiehie (1905-1906/2008). *Ka mo‘olelo o Hi‘iakaikapoliopole*. (M. P. Nogelmeier, Trans.) Honolulu, HI: Awaiāulu Press.
- Ho‘oulumāhiehie (1909-1910/2009). *Ka mo‘olelo hiwahiwa o Kawelo*. (H. K. Pereira, Ed.) Honolulu, HI: Bishop Museum Press.
- James, V. (2010). *Ancient sites of O‘ahu: A guide to archaeological places of interest* (Rev. ed). Honolulu, HI: Bishop Museum Press.
- Jayne, C.F. (1906). *String figures*. New York, NY: C. Scribner’s Sons.
- Joesting, E. (1988). *The separate kingdom*. Honolulu, HI: University of Hawai‘i Press.
- Kaeppler, A. (1993). *Hula pahu: Hawaiian drum dances, Volume 1 Ha‘a and hula pahu--sacred movements*. Honolulu, HI: Bishop Museum.
- Ka huakai a ka moiwahine . (1871). *Ke Au Okoa*, March 2, 1871.
- Kamakau, S. (1976). *The works of the people of old*. Honolulu, HI: Bishop Museum Press.
- Kamana, K & Wilson, W.H. (1996). Hawaiian language programs in *Stabilizing indigenous languages*. Flagstaff, AZ: Northern Arizona University Center for Excellence in Education.
- Kaeppler, A (1993). *Hula pahu: Hawaiian drum dances, Volume 1 Ha‘a and hula pahu--sacred movements*. Honolulu, HI: Bishop Museum.
- Kame‘eleihiwa, L. (1992). *Native land and foreign desires: pehea la e pono ai? How shall we live in harmony?* Honolulu, HI: Bishop Museum Press.
- Kelly, M. (1980). *Hālau hula* and adjacent sites at Kē‘ē, Kaua‘i. In Barrere, D., Puku‘i, M.K., & Kelly Marion (Eds.). *Hula historical perspectives*. Honolulu, HI: Department of Anthropology, Bernice Pauahi Bishop Museum.
- 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)
- Manu, M. (1899, July 1). Pelekeahiloa a me Wakakeakaikawai. *Ka Loea Kalaiaina*.

- Mitchell, D. (1982). *Resource units in Hawaiian culture*. Honolulu, HI: The Kamehameha Schools Press.
- Nakuina, M. (1991). *Moolelo Hawaii o Pakaa a me Ku-a-Pakaa*. Honolulu, HI: Kalamakū Press. (Original work published in 1902)
- Nogelmeier, M. P. (Ed.). (2008). *The epic tale of Hi'iakaikapoliopole*. Honolulu, HI: Awaiāulu.
- Oliveira, K. (2006). *Ke alanui kīke'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, University of Hawai'i at Mānoa). Retrieved from Dissertations & Theses @University of Hawaii (Publication No. AAT 3216079)
- Oliveira, K. (2009). Wahi a kahiko: Place names as vehicles of ancestral memory. In *AlterNative*, 5, (2), pp. 100-115. Auckland, New Zealand: Ngā Pae o te Māramatang, University of Auckland.
- Polynesian Voyaging Society. (1999). *Hawaiian voyaging traditions: Hawaiian star lines*. Retrieved from http://pvs.kcc.hawaii.edu/ike/hookele/hawaiian_star_lines.html
- Poomaikelani, K. (1882). *Ka puke moolelo o ka papa kuauhau alii o Hawaii*. Honolulu, HI: Royal Genealogy Board of Hawai'i.
- Poepoe, J. M. (1908-1911). *Ka moolelo kaa o Hiiaka-i-ka-poli-o-Pele*. *Kuokoa Home Rula*.
- Puku'i, M. K. (1936). Ancient hulas of Kaua'i. *The Kauai Papers*, v. 2 (MS-2). Līhu'e, Kaua'i, HI: Kauai Historical Society.
- Puku'i, M.K., & Elbert, S.H. (1986). *Hawaiian dictionary*. Honolulu, HI: University of Hawai'i Press.
- Puku'i, M.K. & Green, L. C. S. (1995). *Folktales of Hawai'i*. Honolulu, HI: Bishop Museum Press.
- Puku'i, M.K. (1997). *Ōlelo no'eau: Hawaiian proverbs & poetical sayings*. Honolulu, HI: Bishop Museum.
- Roberts, M., & Wills, P.R. (1998). Understanding Maori epistemology: A scientific perspective. In H. Wautischer (Ed.), *Tribal epistemologies: Essay in the philosophy of anthropology*. Sydney, Australia: Ashgate.

- Silva, N. (2010). *Pele's calling the winds in Poepoe, Joseph M. Ka Moolelo Kaao o Hiiaka-i-ka-poli-o-Pele. Kuokoa Home Rula 1908-1911*. Retrieved from <http://www.politicalscience.hawaii.edu/3-working/faculty-documents/articles/Pele-calling-winds-Poepoe.pdf>
- Tava, R. & Keale, M. (1989). *Niihau: The traditions of an Hawaiian island*. Honolulu, HI: Mutual Publishing Company.
- Warne, D. (2008). *Humehume of Kaua'i: A boy's journey to America, an ali'i's return home*. Honolulu, HI: Kamehameha Schools Press.
- Wichman, F. B. (1985). *Kaua'i tales*. Honolulu, HI: Bamboo Ridge Press.
- Wichman, F. B. (1997). *More Kaua'i tales*. Honolulu, HI: Bamboo Ridge Press.
- Woodward, D., & Lewis, G. M. (Eds.). (1998). *The history of cartography, Volume 2, Book 3: Cartography in the traditional African, American, Arctic, Australian, and Pacific societies*. Chicago, IL: University of Chicago Press.
- Zeruvabel, E. (2003). *Time maps. Collective memory and the social shape of the past*. Chicago, IL: The University of Chicago Press.

Notes

1

Pu‘ukapele is in Waimea Canyon, literally. “ volcano hill”

2

According to Puku‘i and Elbert (1986), Nōmilu is the name of a volcanic cone and fishponds at Kōloa, Kaua‘i. They are said to have been made by Pele and were guarded by Puhi‘ula (red eel) and Puhi-pakapaka (scaly eel), both supernatural eels. During volcanic activity on Hawai‘i, sulfur can be smelled in these ponds. Hawaiians gathering salt there placed salt offerings on leaves for Pele. Nōmilu is also a valley in southeast Ni‘ihau.