Great Ke‘elikōlani, respond, here’s my song, of praise for you

“Ke‘elikōlani Nui”, Kahauanu Lake

KA HAKA ‘ULA O KE‘ELIKŌLANI
UH HILO COLLEGE OF HAWAIIAN LANGUAGE BUILDING
ENTRY F
PUBLISHED PROJECT INFORMATION

01 PROJECT TYPE
COMMISSIONED WORK TO BE BUILT

02 PROJECT NAME
KA HAKA ‘ULA O KE’ELIKÔLANI,
COLLEGE OF HAWAIIAN LANGUAGE BUILDING

03 PROJECT LOCATION
UNIVERSITY OF HAWAI‘I AT HILO, HAWAI‘I
**Original Architect**
The College of Hawaiian Language established on the UH Hilo campus in 1997 is spread across campus in borrowed space and portable and temporary structures.

In 2006, a local architectural firm was contracted by the prime consultant and project manager, SSFM International, to design a new building to house the College’s programs and activities. The original architect developed a concept design (depicted to the right) and progressed the design to a schematic level.

It was decided in late-2009, after a lack of project progress, to conclude contractual services with the original architect. A new architectural firm was approached to determine their interest and capability of completing the design and finishing the construction documents by the end of the year. The timing was crucial to allow for the project to be eligible for funding at the 2010 State Legislative session.

**New Architect**
Accepting the challenge, the new architect was tasked with redeveloping the concept design and finishing the construction documents.

The new architecture team was charged by the client to the following:

1) Develop deeper cultural ties and references that more strongly reflect and honor the project’s location and history, the mission of the College, and the legacy that its patron Princess Ruth Ke‘elikōlani had established.

2) Maximize efficiency and clarity in program layout and adjacencies

3) Maximize LEED status (minimum silver for public projects)

4) In the days of fiscal responsibility, verify budget compliance and maximize “return on investment”.

Of equal importance, this 4-month effort required the entire team to develop the drawings (at the time in various stages of schematic and design development) up to construction document and bidding level to successfully submit for funding approval.
The programming for the building can be organized spatially into two wings – a faculty wing and a student wing – and connected by a covered ceremonial plaza at the entry level called the Piko. The faculty wing houses the offices for the academic studies division chair, College director dean, professors, assistant professors, graduate student-lecturers and administrative support staff. The student wing includes the Performing Arts/Multi-purpose classrooms which can be combined to form a 200-seat auditorium, Distance Learning/Telecom classrooms equipped with permanent instructional AV systems, Technical Development & Data Center, library, computer lab, tutorial room and a student lounge.

It is envisioned that this project will include future phases for a day care/preschool facility (Mauli Ola) and a graduate exchange program and housing.

<table>
<thead>
<tr>
<th>Category</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classrooms</td>
<td>8,190 sf</td>
</tr>
<tr>
<td>Faculty/Administrative Offices</td>
<td>6,033 sf</td>
</tr>
<tr>
<td>Library</td>
<td>1,754 sf</td>
</tr>
<tr>
<td>Performing Arts</td>
<td>2,689 sf</td>
</tr>
<tr>
<td>Student Lounge</td>
<td>1,146 sf</td>
</tr>
<tr>
<td>Faculty Lounge</td>
<td>750 sf</td>
</tr>
<tr>
<td>Teacher Education</td>
<td>911 sf</td>
</tr>
<tr>
<td>Technical Development &amp; Data Center</td>
<td>1,180 sf</td>
</tr>
<tr>
<td>Auxilary Spaces (Restrooms, Mech/Elec/Storage)</td>
<td>5,624 sf</td>
</tr>
<tr>
<td>Corridors, Stairs, Elevators</td>
<td>7,198 sf</td>
</tr>
</tbody>
</table>

*Piko,* or the heart of the building experienced at arrival that ties together the student and faculty wings.
HISTORIC CONTEXT

Established in 1997, UH Hilo’s College of Hawaiian Language, Ka Haka ‘Ula O Keʻelikolani, was named in honor of Princess Ruth Keʻelikolani Keanolani, the 19th century high chiefess known as a strong advocate of the Hawaiian language and a defender of culture and tradition.

One particular story that is drawn upon as an inspiration for design was of her intercession with the Hawaiian fire goddess Pele. When Mauna Loa erupted in 1881, threatening the city of Hilo with a lava flow, it is said that Princess Ruth kneeled at the foot of the flowing lava with a red scarf to halt the flow. It was her prayers to the goddess Pele that saved the city, and is a recurring theme throughout the College’s design.

CULTURAL CONTEXT

The transference of knowledge is paramount to the survival of any culture. For native Hawaiians, the main method was through language, in the form of moʻolelo (story), oli (chant), and mele (song).

The College of Hawaiian Language therefore carries a heavy kuleana (responsibility) to perpetuate the its language, and to cultivate students of its culture.

The core values and mission of the College are captured in the parti on the page below which represents the transference of knowledge from not only the kumu (teacher), but the history and land, which is the origin of the Hawaiian culture. This knowledge, once received and understood, then continues the cycle through sharing with and teaching others.
CONTEXT FOR DESIGN

It is this Historical and Cultural context that laid the basis for the proposed design - one that looks to celebrate the traditions of the past, acknowledge and reference its surrounding environment, and infuse cultural ideals and relationships between kumu (teacher) and haumāna (student).

CULTURAL INTEGRATION + FUNCTION

The College’s design, orientation and spatial relationships are deeply rooted in Historic, Cultural, and Environmental references. These references are then translated into the space, form and functional aspects the building. Some of the significant references utilized are listed below and are detailed within the following diagrams, plans and renderings.

Mauna (mountain) - Mountains that surround the site
Kipuka (oasis) - The oasis that grows from the cooled lava
Pāhoehoe (lava) - Lava that flows from the mauna
‘Ula (scarf) - The red of the Princess’s scarf
‘Ōlelo (language) - Language that binds us to our culture
Ka Hale (traditional building) - Traditional building forms
Ka Leo (voice) - Voice that transfers knowledge
Ka Waha (mouth) - Mouth from which to teach
Ka Pepeiau (ears) - Ears which receives knowledge
Ka Haka (levels of achievement) - Levels of achievement
Ka Piko (center) - The center from which all is connected

Princess Ruth Keʻelikōlani

ka haka
(levels of achievement)

ka hale ‘ōlelo
(house of language)

naʻauau
(knowledge)

naʻau
(mind)

Listen, Learn
maka a me ka pepeiau
(eyes & ears)

mauna (mountain)

KUMU (teacher)

ka leo
(voice)

Teach, Share
waha
(mouth)

CAMPUS,
HILO

HIʻIKA grows kipuka (oasis)

PELE creates pāhoehoe (lava)

KĀNE creates ‘ākoʻakoʻa (coral)
Mauna Kea
Mountain of Wākea. The piko of the Big Island.

Mauna Loa
Source of lava flow that threatened to destroy Hilo in 1881. Said to have been halted by Princess Ruth Ke'elikōlani.

Kilauea Volcano
Home of Hawaiian Fire Goddess Pele.

Hulihe‘e Palace
Final home of Princess Ruth Ke'elikōlani. Princess Ruth actually resided in a traditional hale adjacent to the western-style palace, named Ka Hale ‘Ōlelo, House of Language.
DRAWINGS :: ENTRY LEVEL PLAN (Level 2)

- AUTO COURT
- SCULPTURE GARDEN
- DROP-OFF
- PIKO/CEREMONIAL PLAZA
- PERFORMANCE AUDITORIUM
- PERFORMANCE PÄ - LANDSCAPE TERREACE
- GRAND STAIR
- OUTDOOR MEETING SPACE
- CLASSROOM
- CLASSROOM
- CLASSROOM
- ADMINISTRATIVE OFFICES

Mauka → Makai
DRAWINGS :: GARDEN LEVEL PLAN (Level 1)
DRAWINGS :: BUILDING ELEVATIONS, SECTIONS

mauka

southeast

makai

northwest

section through arrival/ceremonial plaza
cultural integration

- **Mauna Kea Roof Forms:** The kua (ridgeline) of the Auditorium roof rises from the tree line announcing the Ka Haka ‘Ula O Ke‘elikōlani. The traditional hale roof form is inspired by the tall peaks of Mauna Kea beyond. It is also a physical representation of Ka Hale ‘Ōlelo, Princess Ruth’s traditional hale pili at Hulihe‘e Palace in Kona.

- **Mauna Loa, Kilauea Roof Forms:** The low rolling roofs forms flanking the Auditorium roof represent two other significant mauna of the Big Island, the low sloping form of Mauna Loa and the still-active volcano Kilauea.

function

- **Roof Materials:** Although the roof profiles are unique, the materials and finishing (red color) are consistent with the University’s existing built vernacular.
cultural integration

- **Ka Waha:** The large bay window at the makai end of the Auditorium roof symbolizes Ka Waha (mouth), from which knowledge is shared. Its axis is aligned with the UHH main campus and the greater Hilo town to symbolize the sharing of knowledge with the rest of the community.

- **Ka Pepeiau:** Tall clerestories at the side of the Auditorium represent Ka Pepeiau (ears), from which knowledge is received.

function

- **Glazing:** Generous glazing along the east and north facades maximize natural light for the faculty wing, library and north-facing classrooms.

- **Outdoor Spaces:** Several classrooms and offices open up courtyards that increase available learning and gathering areas.
cultural integration

- **Mauka-Makai:** The building’s orientation reinforces the relationship between Mauka (mountain) and Makai (ocean). It also reinforces the idea of knowledge being passed down from Kūpuna (elder) to Haumāna (student) and then on to the greater community. The building itself becomes the Piko (center) to facilitate this passing of knowledge.

function

- **Visual Impact & Scale:** In addition to the low profile roof forms, the building is nestled into the sloping hillside to minimize its presence and visual impact.
- **Campus Experience:** As future phases are planned and built around the site, students and faculty will experience Ka Haka ‘Ula O Keʻelikōlani as a campus within a campus.
cultural integration

- **Arrival Monument:** Visitors are greeted by a modern interpretation of a rock wall signifying the importance of ‘Olelo (language), the stone is progressively transformed from a rough hewn interwoven stone to a cap of smooth finish basalt, representing a higher attainment of knowledge.

- **‘Ōhi’a:** ‘Ōhi’a trees line the entry drive and sculpture garden beyond. Prevalent in Hilo, the ‘Ōhi’a is a kinolau (physical manifestation) of the Goddess Pele.

function

- **Arrival Walkway:** The flat surface of the walkway roof is lined with photovoltaic panels that will supplement power for the College.
** DRAWINGS :: SCULPTURAL GARDEN **

**cultural integration**

- **Pāhoehoe**: The gentle sloping garden represents the flowing lava of Mauna Loa which once threatened Hilo town. The red paving at the foot of the garden represents Princess Ruth’s red scarf, which she used to stop the lava flow in 1881.

- **Kipuka**: The green open space can represent a Kipuka that grows from the cooled lava, symbolizing new growth in life and knowledge.

**function**

- **Function Lawn**: The garden provides an open area for gathering and outdoor activities. The gentle slope creates a natural amphitheater for performances.

- **Entry**: Students and visitors that want direct access to the lower level classrooms from the main parking lot will find the garden a pleasing arrival experience.
Ka Piko: At the center of the building, a skylight is located at the center of the Ceremonial Plaza. It sits at the axis of significant geological references, and opens up to the sky to symbolize a spiritual connection to the heavens.

Central Gathering: The central plaza is designed to accommodate both formal ceremonies and informal gatherings. It has approximately 50’ x 50’ of covered space, enough to shelter 200+ people. Another 1,200sf of uncovered plaza is also available. Aligned in a Mauka-Makai orientation, the plaza opens up great vistas and optimizes natural ventilation.
**cultural integration**

- **Pā**: Basalt stones excavated from the site are repurposed to define a large open green space for outdoor performances and activities. The Pā is aligned along the central axis of the building through the Piko. Performances are then made not only to the audience on the grand stair, but to the mountains beyond and the Kupuna of the past.

**function**

- **Amphitheater**: The grand stair provides amphitheater seating for viewing performances.
cultural integration

- **Ka Hale ʻŌlelo:** Honoring Princess Ruth Keʻelikolani’s traditional hale at Huliheʻe Palace, the performance hall is filled with multiple meanings. The wood slat ceiling represents the pili (grass) of The Princess’s hale; the blue background, the night sky.

- **Ka Haka:** The suspended “chandelier” in Ka Hale ʻŌlelo has several purposes and meanings. The floating, moving action of the Haka represents the various Haka, or levels of achievement in the College of Hawaiian Language and its curricula. The rack itself is made of 16 'ōʻō sticks, representing the 16 wā of the Kumulipo, and representing new beginnings.

function

- **Multi-Function:** The auditorium is made of two classrooms and a performance hall. Movable partitions can be opened to accommodate approximately 200 seats. A portable performance platform can also be positioned (or removed) to facilitate a variety of functions.
**cultural integration**

- **Ka Waha:** The large bay window at the makai end of the Auditorium roof symbolizes Ka Waha (mouth), from which knowledge is shared. Ka Leo (voice) eminates from Ka Waha, emphasizing the sharing of ‘Olelo and Na’auau (language and knowledge) with the UHH campus and community. It is located above the Library, reinforcing this concept.

**function**

- **Multifunction:** The Waha’s space is large enough to conduct small meetings and student activities, as well as provide additional seating for performances and lectures held within the Auditorium. Large flanking supply rooms facilitate easy transitioning of functions, and also provide for future growth as needed.
**DRAWINGS :: GREEN INNOVATIONS**

* Target: LEED SILVER CERTIFICATION

**SUSTAINABLE SITES**
- Vegitated open space > building footprint
- Forest Stewardship Council specified building products
- Divert over 50% of construction waste from landfills
- Zero use of CFC-based refrigerants

**RECYCLING**
- Paper, cardboard, glass, plastic & metal recycling program &
designated storage
- Specified recycled content for building materials

**LIGHTING**
- Light & occupancy sensors will help optimize energy performance by approx. 20%
- Maximize daylight & views for regularly occupied spaces

**RECYCLING**
- Paper, cardboard, glass, plastic & metal recycling program &
designated storage
- Specified recycled content for building materials

**NATURAL VENTILATION**
- Naturally ventilated classroom spaces
- Thermal comfort & individual controllability of systems
- Indoor air quality management plan
- Low (VOC)-emitting materials specified

**ENERGY**
- Optimize energy performance by over 20%
- Integrated photovoltaic system
- Enhanced commissioning of building systems

**OCCUPANT BENEFITS**
- Preferred parking for carpool & fuel efficient vehicles
- Bike racks and shower facilities
- Green building education program
- Green housekeeping

**H2O**
- Stormwater management limiting disruption & pollution
- Water use reduction by over 30%
- No potable water use for landscaping
DRAWINGS :: CULTURAL INSPIRATIONS & VERNACULAR INFLUENCES

HALE PILI
Princess Ruth’s traditional hale at Hulihe’e Palace.

MAUNA
The iconic mountain forms of the Big Island.

‘ULA
The red scarf Princess Ruth used to halt the lava flow.

PĀHOEHOE
The flowing lava.

KA PIKO
The heart or center where everything is connected.

KĪPUKA
Sprouting oasis from the cooled lava.

‘ŌLELEO
Language, the fiber that binds us to our cultural identity.

WAHA
Source of Ka Leo (voice)

HAKA
Levels of achievement

POHAKU
Stones from the site that are repurposed to mark open areas of significance.

ROOFS
Red, standing seam metal roofing that are prevalent across the UH Hilo Campus.

WALLS
Battered concrete walls that resemble the traditional building methods.
<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
<th>Digital File Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Site Orientation</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Site Plan</td>
<td>KHUOK_01_SITEPLAN.jpg</td>
</tr>
<tr>
<td>3</td>
<td>Entry Level Plan</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Garden Level Plan</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Building Elevations, Sections</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Southeast Perspective from Waiakea Stream</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Northwest Perspective from Nowelo St.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Mauka Perspective from Entry Drive</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Auto Court</td>
<td>KHUOK_03_VIEW ENTRY ROAD.jpg</td>
</tr>
<tr>
<td>10</td>
<td>Sculptural Garden</td>
<td>KHUOK_04_VIEW SCULPTURE GARDEN.jpg</td>
</tr>
<tr>
<td>11</td>
<td>Piko/Ceremonial Plaza</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Grand Stair/Performance Pa</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Auditorium/Performance Hall</td>
<td>KHUOK_05_VIEW PERFORMANCE HALL.jpg</td>
</tr>
<tr>
<td>14</td>
<td>Ka Waha</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Green Innovations</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Cultural Inspirations &amp; Vernacular Influences</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Makai Perspective</td>
<td>KHUOK_02_VIEW OVERALL FROM MAKAI.jpg</td>
</tr>
</tbody>
</table>