The ‘Ōlelo Hawai‘i Campus

Architecture for Indigenous Language Revitalization and Normalization

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‘Ōlelo Hawai‘i, the Hawaiian language, was almost lost. After the overthrow of the Hawaiian monarchy, it was outlawed from schools and supplanted by the English language. By the mid-twentieth century, just a few hundred native speakers remained. The Hawaiian Renaissance of the 1970s saw a return in interest in the Hawaiian language. Since then, a small group of community leaders and educators have been working together to develop a complete educational system spanning from preschool to Ph.D., taught entirely in ‘ōlelo Hawai‘i. Along the way, the group has grown into a statewide coalition of schools and nonprofit organizations. Their success has seen Hawai‘i become an aspirational model for similar indigenous language programs across the nation and around the world. This project, in collaboration with some of these pioneers, is the culmination of four decades of effort in envisioning, designing, and building an ‘ōlelo Hawai‘i campus-within-a-campus on state university grounds.

A User-Centered Research Collaboration

The ‘Ōlelo Hawai‘i Campus project was co-led by two Principal Investigators in collaboration with two primary consultant with expertise in user research and digital strategy. Our team included paid undergraduate and graduate students from architecture and graphic design programs and recent UH grads. The project was conducted through the UH Community Design Center platform, which is housed in the UHM School of Architecture and operates as a teaching practice that aims to actively bring together students, researchers, faculty, leadership, and community members in the design process. Student assistants were involved in all activities, including presenting to clients and engaging with stakeholders.

Our work worked in close collaboration with six Hawaiian language and cultural education organizations. Multiple phases of user research, including one-on-one interviews, co-creation workshops, and “talk story” sessions, were held with over fifty Hawaiian language education founders and senior leaders. Students, parents, program graduates, and community members also generously shared their knowledge and experiences during the research phase.

A series of planning strategies, concepts and visualizations were developed with the goal of creating proof-of-concept designs for future development through RFPs. The models, plans, renderings, ROM cost estimates, and other assets created for this project have served as the focal objects for funding negotiations.

Planning Strategies, Cultural Alignments & Protocol Spaces

The site is organized around a series of physical alignments, responding to nine Indigenous cultural pathways (relationships, language, cultural identity, wellness, personal connectivity, intellect, applied achievement, sense of place and worldview), developed by members of the consortium.

The first alignment, at the scale of the site, extends the axis established by an existing building, which serves as an embodiment of the Hawaiian Language Movement, and marks a connection between the waters of Hilo Bay and the sacred mountain Maunakea.

The second alignment, at the scale of the buildings, organizes a system of protocol spaces, to the ma uma - ma kai axis. A third alignment occurs at the scale of the individual participating with their community, as they position themselves in relation to the rising and setting sun.

Three Buildings Framing an Open Green

This project focused on the design of three buildings, a Pre-School, a Production Facility, and a Graduate School & Cultural Center. The assembly of these unique structures frame a programmable open green that can host a wide variety of events.

1 Pre-School: Centered around all-weather play spaces and ‘ohana-oriented, flexible classrooms, this simple structure embraces a central, protected, piko space that allows caretakers to keep an eye on the children from almost every space in the building, while providing direct visual and physical connection to the outdoors in all directions.

2 Production Facility: This compact, permeable structure supports a teaching-practice for the research-development-production-distribution cycle of technologies and resources for Hawaiian language education. A series of open-plan, stacked and flexible spaces, adapt to design processes, exhibitions and events, maximizing visual connections inwards and out, and exposing “behind the scenes” for open learning.

3 Graduate Center & Cultural Center: Minimally touching the site, a series of rooms provide spaces to learn, work, or sleep along a network of wooden decks that pixelate into the landscape. The enclosed pods are designed to be completely off-grid when not in use, while the floating platforms extend learning and dwelling spaces between inside and out.

Zoom-In / Zoom-Out Constructs

Two large models were built to socialize the final proof-of-concept designs. The “Zoom-Out” site model is designed to orient viewers to the overall plan for the mini campus and to illustrate cultural alignments. The “Zoom-in” construct is composed of four models on plinths. This assembly allows the individual models to be displayed together or separately supporting a variety of stakeholder discussions and fund-raising events.
**Project Overview**

**Anatomy of a Collaboration**

Conducted across three phases, this project kicked off in the Summer of 2020 (during the onset of the global pandemic), and was made possible by the collaboration of over 75 individuals, including client project leads Keiki Kawai‘ae-A, Ph.D. (Interim Vice Chancellor for Academic Affairs at UH Hilo) and Ka‘iu Kimura (Executive Director of ‘Imiloa and interim Director of Ka Haka ‘Ula o Ke‘elikolani).

A working group of 58+ leaders, faculty, staff, students and family members participated in interviews, stakeholder engagement sessions, share-outs, and design charrettes that contributed to the programming and strategic development of the project.

A Design-Research-Production team of 21 including faculty, researchers, professionals, and student assistants conducted the work through the community design center within the school of architecture.

Four discrete and interrelated efforts resulted, including the design of a master plan and the design of three buildings.

Funding for the study was secured by Ka‘ialii Kahele, the second Native Hawaiian to serve as a member of Congress representing Hawai‘i since statehood. These funds were ultimately awarded to the university and are being managed by the University of Hawai‘i’s Vice President of Administration.

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**University of Hawai‘i System**

Hilo Island

Hilo Campus

Leadership (5)

Academic Unit

College of Hawaiian Language

Director/Stakeholder Lead (1)

Faculty (11)

Staff, Specialists (2)

Students (4)

Outreach Units

Hawaiian Language Development Center

Specialists/Lecturers (6)

Astronomy Center

Director/Stakeholder Lead (1)

Cultural Center for Indigenous Language Excellence

Director and Specialists (3)

Pre K-12 / Non-profits

Public Hawaiian Language Charter School (K-12)

Director (1)

Private Hawaiian Language Preschool

Leaders (3)

Staff (1)

Teachers (4)

Parents (3)

Community

Alumni, Parents, Families and students of Hawaiian language education (10)

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O‘ahu Island

Mānoa Campus

Leadership (2)

Academic Unit

School of Architecture

UH Community Design Center

Faculty/Principal Investigator (1)

Principal Investigator (1)

Research Associate (1)

Junior Research Associates (UHM SoA recent grads) (5)

Summer Research Associate (IIT Institute of Design) (1)

SoA Student Assistants (8)

Art Student Assistant (1)

English PhD Assistants (2)

Professional Expert

User Researcher (1)

Total Contributors = 79

Working Group (Interviews, stakeholder engagement sessions, share-outs, workshops) (58)

Design, Research & Production Team (21)

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**Project Title:** ‘Olelo Hawai‘i Campus

**Month/Year Completed:** May 2023

**Role of Nominee (in the project):** Designers and Principal Investigators

**Collaborators & Funding Sources Expenses:**

This project was conducted through the university community design center as a proof-of-concept, design-research effort for the university office of the vice-president with the financial support of pre-construction capital improvement funds.

Two principal investigators (a university researcher, and an architecture faculty) lead the work. Research associates and student assistants were involved in research/production efforts, including engagement efforts, visualization, modeling, animation, prototyping and web design.

An expert consultant was paid for 390 hours to lead the initial foundational user research. All Design-Research-Production team members that contributed to this project were compensated.

**Student Compensation:** 12 undergraduate and graduate students contributed to this project as paid project assistants for 3,670 hours from 2020-2023.
Stakeholder Engagement

Foundational User Research

Interviews with ten user groups, totaling more than 50 participants, were conducted via Zoom during the global pandemic. Target participants included Students, Teachers & Administrators, and Parents & Families.

User Categories

Kula
Teachers & Administrators

Haumāna
Students

Kaiāulu
Community Visitors

‘Ohana
Family & Friends

Participant Groups

Group 1 - Leadership Interview
Directors (2)

Group 2 - Stakeholder Discussion
Program Coordinator, Projects Manager, Academic Programs Chair, Faculty, Graduate Faculty, PhD Alumni (8)

Group 3 - Curriculum Developers
Curriculum Developers, Program coordinators (5)

Group 4 - Curriculum Developers & Specialists
Curriculum Developers, Publications Coordinator, Information Technology, Website Specialists (6)

Group 5 - Staff & Coordinators
Curriculum Developers, Inventory, student staff, Fiscal Specialist (4)

Group 6 - Graduate Program
Graduate Programs Chair, Academic Programs Chair, Linguistics faculty, graduate faculty, International Outreach (8)

Group 7 - Staff & Coordinators
Student Coordinator, Staff/Chancellor Office (2)

Group 8 - Visitor Program
graduate student, program coordinator, communications, Invisor Director, APL External Affairs, faculty, teacher (5)

Group 9 - International Students
PHO Alumni, New Zealand, Alaska, Toronto (4)

Group 10 - Hawa‘i-Based Students
graduate student, M.A. Alumni, teacher, faculty, graduate student, PHO student, South Dakota (6)
Physical Planning

ʻŌlelo Hawai‘i Campus

Composed of a collection of specifically different environments, each facility is carefully tuned to its mission and program and is supportive of the larger whole. The assembly of unique structures frame a quadrangle of programmable open lawn that can host a wide variety of events.

Driving Question

How might our physical environments best support, forward, and embody an ʻŌlelo Hawai‘i P-25 Cycle, while furthering our capacity as leaders in global indigenous language revitalization?

Key

1 Hale‘ōlelo
Ka Haka Ula O Ke ali‘i ilani College of Hawaiian Language Undergraduate (primary)

2 Hale Kuamo‘o
Hawai‘i Language Center

3 Graduate Center
Ka Haka Ula O Ke ali‘i ilani College of Hawaiian Language Graduate & PhD (primary) & Mokuula Honua
Global Center for Indigenous Language Excellence

4 Pūnana Leo
ʻAha Pūnana Leo
Preschool, middle, high school

5 ʻImiloa
ʻImiloa Astronomy Center
Pre-K to 12 grade programs

6 Nāwahi
Ka Haka Ula O Ke ali‘i ilani College of Hawaiian Language P-12 Hawaiian Immersion school

★ Existing Facility
Protocol-Centered: Comfortable spaces for daily protocols and cultural practices are provided both at the level of the campus and within each facility.

Connected Learning: The cluster of closely spaced buildings share plazas and outdoor spaces in an effort to invite and facilitate communication between programs.

Aligned Green: Buildings are centered around a green space that is aligned along a ma ʻuka to ma kai axis that was established by Haleʻōlelo.

Shared Commons: Key spaces, like conference and meeting rooms, are shared across the campus to keep the overall square feet of built space to a minimum.
Scale Models

Exhibition Elements

Two large constructs display all three buildings in the context of the surrounding topography and the immediately adjacent existing structures. Built for viewing first in Honolulu, O’ahu and then subsequently in Hilo, Hawai‘i, they are designed for ease of crating and disassembly.

4 Individual Models
Plywood bases & acrylic vitrines for individual use/storage/protection

Lightweight Foam Clip-Ons
Smaller removable components for ease of storage/transport

connected Island
Diameter 8'-10"

Zoom-in Model
Phases 2a, 2b, and 3 cluster
Focused on individual projects

Zoom-Out Model
Oriention device
Focused on Cultural Alignments

Star Compass & Alignment Marker
Highlights Ma uka - Ma kai axis

Didactic flags
Plywood, conceal base seams

Foam site model
3'-10" diameter

CNC'd table top
Scallop pattern etched into surface
Space for additional text/info

Curved plywood base
4'-10" diameter, 6 segments for storage/transport

Plywood base
Inset base, 1” reveal for shadow line
Pūnana Leo

Housing ʻAha Pūnana Leo and the Hiʻipēpē Infant Program, the structure will be home to the Preschool system's main Hilo location. It is composed of classrooms, administrative and meeting spaces, a kitchen, and a laundry facility.

**Lānai Play:** Large lānais, pergolas, and awnings provide access to play and learning spaces in all types of weather.

**Ohana-Oriented:** Classrooms open onto one another to accommodate teaching and community events, covered outdoor spaces allow for protected drop-offs, and generous maintenance rooms simplify self-directed make parent/community volunteering.

**Safe Shape:** The simple, shed roofed structure embraces a central, piko space that allows teachers, parents, and aides to keep an eye on the keiki from almost every space in the building.

**ʻĀina-Connected:** Classrooms have direct visual and physical connection to the outdoors, creating a sense of calm and providing for planned and spontaneous teaching moments.
Simple Shed Roof with Deep Overhangs
Standing seam metal roof and cross-laminated timber structure provide cover from the rain and sun.

Transparent Photovoltaic Canopy
Structural system reflects logic of Star Compass and provides space for outdoor classroom, recreational, and community activities.

Terraced Lawn
Steps down gently toward the Quad and Hāʻeōlelo

OLANAI (SE Horizon)
KONA (SW Horizon)
KOALUA (NE Horizon)
HOALUA (NW Horizon)
HIKINA (East)
KOMOHANA (West)
LÅNINA
NOIO
MANU
NÅLANI
NÅLEO
HAKA
HEMA (South)
– 90˚
LÅNINA
NOIO
MANU
NÅLANI
NÅLEO
HAKA
HEMA (South)

Ke Aliʻi o Kona i ka Lewa (Canopus)
çÅ (Sirius)
NÅNÅHOPE (Pollux)
HåKÅLEI (Capella)
HÅKÅLEÇULA (Aldebaran)
PüANA (Procyon)
KAULUKOÇOKA (Betelgeuse)
DåBÅN (Piraçetea)
HÅKÅLEÇÅKA (Arcturus)
HÅKÅLEÌÄÅ (Spica)
BECRUX
PÔMÅNA (Alpha Centauri)
KÅMÅLEHOPE (Alpha Centauri)
KÅMÅLEÌÅÚA (Beta Centauri)
NÅWÅHI (Big Dipper)
LÅ (Sun) Rises Here on Dec. 22
LÅ (Sun) Rises Here on Mar. 21 & Sept. 23
LÅ (Sun) Rises Here on June 21
LÅ (Sun) Sets Here on Dec. 22
LÅ (Sun) Sets Here on Mar. 21 & Sept. 23
LÅ (Sun) Sets Here on June 21

Flexible Classrooms
Can be joined together for group activities and can open directly outdoors, onto the courtyard, playground or mala.

Protected Courtyard
A protected courtyard embraces the central piko. Bounded by the thirty-two houses of the Star Compass, the space serves as a focal point for the entire ʻŌlelo Hawaiʻi Campus.

Piko Grid
Canopy-covered courtyard as focal, dedicated space for protocol. A system of points organized into overlapping grids, spaced at 2’ and 3’ intervals, orients the space for protocol. Sized for keiki and adults, the Piko Grid is aligned with the Star Compass.

Centering the Learner
The courtyard piko aligns the learning process with land, sea, stars, and ancestral knowledge. Marking the origin point of the education journey, the preschool is surrounded and supported by generations of learners and educators.

PIKO: Protocols & Alignment Framework
Source: Kauhala Hana ʻIke – Hawaiʻi Cultural Competence at http://kahualahaiki.com/

Courtyard: Mobile Planters can be moved between Learning Octants for flexible outdoor learning and playing

Star Compass: Foundational framework for navigation
Source: Polynesian Voyaging Society website: http://kahualahaiki.com/
Production Facility

Hale Kuamo‘o

Operating as a teaching practice, students workers will learn alongside professional graphic designers, specialized researchers, curriculum designers, audio/sound/video experts, and language specialists to build the next generation of Hawaiian language education.

Full Cycle: The research-development-production-distribution cycle is supported by a series of stacked and easily accessible spaces.

Design-Led: A collaborative studio environment sits on the top floor. The open plan allows for responsive mentorship between staff and students while highlighting the multi-disciplinary nature of the work.

In Process: A flexible, second floor gallery/event/exhibition space, invites inhabitants and guests to see behind the scenes.

Mixed Media: The facility supports traditional print-based work and accommodates settings for increasing efforts for video-based work and digital development.
Graduate Center & Mokuola Honua

This structure houses the Graduate and Ph.D programs for the Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language, as well as the Mokuola Honua cultural center. It is composed of a visitor center, lanai, kitchen and cafe, learning and research facilities, as well as short and long term housing.

**Light Touch:** Minimal excavation for the simple pier system reduces disruption to the soil, while allowing the natural flow of water through the ecosystem.

**Open Platform:** Decks, floating on prefabricated trusses, step down the hillside following the existing topography. Lightweight structures, sitting on and adjacent to the deck system, are connected by photovoltaic awnings.

**Global View:** A viewing tower invites visitors up to witness views of the larger landscape while a ground level visitor center shares information about indigenous language and culture.

**Radically Responsible:** Classrooms, work pods, and short-term housing are designed to be taken offline when not in use, eliminating the waste of energy for air conditioning and “vampire load” at receptacles and other electric devices.