The idea of a Vegetation Continuum emerged from a working group called "Lālā ʻike pono a Kūkaniloko." Together, they conceptualized ways of restoring our sacred site, Kūkaniloko, through remediating and restoring its surrounding land. They believed, "by creating a diverse ecosystem at Kūkaniloko, the watershed will be restored through the reforestation of native trees, which in turn feeds the understory below and ultimately feeds our lāhui." I was fortunate enough to further conceptualize the Vegetation Continuum with my graduate research partner, Alexis Kerver, to further explore and conceptualize the Vegetation Continuum.

Just a few months before the start of the pandemic, I joined the (K)new futures program with my mentor Kamuela Enos and many wonderful peers from the Purple Mai’a community. (K)new Futures fostered my understanding of indigenous innovation and, although it wasn’t completely clear at that time, the pandemic struck and I shifted my focus to my nāʻau (gut instinct) of finding meaning in the Vegetation Continuum and sharing its value with others.

These internal insights and instincts synergized my efforts with Purple Prize 2020 to further the innovative and entrepreneurial process of creation. It was here that Maile Wong joined us, over-extended graduate students, in manifesting the Vegetation Continuum into physical form. I share my deepest gratitude for Alec Wagner, Jack Solomon and the entire Purple Prize and Purple Mai’a community for their generosity and unyielding support. I met my Purple prize mentor, Donavan Kealoha, whom ignited the board game idea from beautiful plant cards created by Maile. Who would have thought that my first game night with Taylor Asao and Rodrigo Diniz would happen in the same week? Donavan introduced me to my mentor Jeff Vierra, Hawaiʻi’s board game expert. His reaction to the moʻolelo (story) of this board game idea activated a new source of inspiration and love for graphic design.

After designing the first paper cut-out protoype, Olivia Marohnic and Ian Wesley-Smith were the first official game testers. I took this prototype to MA‘O Organic Farms, where my fellow farm apprentices and I shared several hours, post 12-hour work days, to discuss, refine, and develop the mechanics and designs of the game. Joshua Fukumoto inspired the design of the lāʻau functionality icons, while Lynn Batten, Flame Porter, Nanea Keliʻi‘i, Charnel Colin, Sarah Itoh (and Kiana Adams), Chelsie Onaga, and Cheryse Kauʻi Sana helped with the mechanics and objectives of the game. My deepest love to MA‘O and ʻai pono (organic food) for nurturing our souls and the creation of this game! Chad Au and Justin tested the next iteration of the prototype before the beta version was underway.

Maile introduced me to Reiki Young, a magnificent local artist, who developed the beautiful lāʻau cards inspired by our traditional Hawaiian print patterns, with a modern twist. Reiki knows and feels color. She joined her talents with Solomon Enos, another brilliant and influential local artist, to summon the masterpiece for the cover of our game. Mahalo to Jeff, Jack, and Alika for their final insight into creating the manual for this game. This creation would not be possible without my greatest support network and pohokus: Mom, Eilene, Asia, Keanu, and my ʻohana on the mainland. You empower and strengthen me with your love. To my twin Flame, Boris Hrbacek, words can’t describe the infinite source of love I share with you. Mahalo for believing in me, empowering me, and giving a whole new meaning to kulia i ka nu’u, striving for greatness. There are many more to mention in this tribute, for which I am surely indebted to. We are here today because of you, and all of us. Our roots are all deeply embedded into this representation of mālama and aloha ʻāina.

Me ka mahalo nui (with deep gratitude),

Kahealani Acosta, Designer
The Vegetation Continuum Board Game
Aloha.
Welcome to our island home.

For many years, we have been subjected to mismanagement of our land and resources, leading to its degradation and vulnerability. This is our ‘āina. ‘Āina is defined as land, but to our kūpuna, ‘āina means that which feeds. ‘Āina is our family. ‘Āina is us.

Because the ‘āina is a reflection of ourselves, the generations preceding us knew that caring for ‘āina was caring for our health and well-being. This is known as mālama ‘āina. And when we mālama ‘āina, the ‘āina provides gifts of abundance and food. This gift of abundance is known as ‘āina momona. To achieve ‘āina momona, we must embody ‘āina momona. This is a journey to mālama ‘āina and restore health and abundance of our land.

Kuleana | Objective

Hahai nō ka ua i ka ululāʻau
The rain follows the forest

Wai is our main source of wealth, thus it is our kuleana to restore the lāʻau of our ‘āina and bring back the rains to avoid famine before 30 mahina phases.

Manual Contents

1.) Walkthrough Guide
   a. Game Board
   b. Game Components
   c. Pono practices
   d. Pā
   e. Mahina & Lāʻau

2.) Quick Start Guide

Defining Hawaiian Terms - One word may possess several meanings, thus it is important to understand the context in which a word is used.

Kūpuna - Elders, ancestors
‘Āina - Land, family, that which feeds
Wai - Fresh Water
Kuleana - Responsibility, objective
Lāʻau - Plant(s)
Mahina - Moon
E Hele Wāwae
Let's walk-through
This is our ‘āina. On the east, we have the windward side. On the west, we have the leeward side.

Wai resources are shared between the windward or leeward side.

On this journey of restoring our ‘āina, we will engage in kilo. There are a few factors to be aware of:

**Mahina** dictates which lā’au are successful during certain phases. This ‘ike was passed down from the kilo of our kūpuna. When we plant lā’au according to the description of each mahina phase, we are deepening our understanding of lā’au and how they grow.

**Lepo** determines where lā’au are able to grow.

**Wai** is our most limited resource, which lā’au need to grow and survive. We must learn how to manage our wai using pono practices. If we are not careful, we may exceed our use into that of our neighbors!

**Defining Hawaiian Terms:**

- **Wai** - Fresh Water
- **Lā’au** - Plant(s)
- ‘Āina - Land, family, that which feeds
- **Kilo** - Deep observation and Inquiry
- ‘Ike - Knowledge
- **Mahina** - Moon
- **Lepo** - Soil(s)
- **Pono** - Beneficial, good, proper
The island is layered into three different wao with distinct lepo types displayed in the colors we see.

Wao Kānaka
Level 1

Wao Nahele
Level 2

Wao Akua
Level 3

To move into the next wao, all lā’au spaces must be planted and ho’okupu obtained for that wao. Ho’okupu is a form of respect and reciprocity for ‘āina.

When we reach wao nahele, we will work with our neighbors depending on the leeward or windward side we’ve started in. What occurs in this level will affect both you and your neighbor. For example, if a player obtains any weeds in wao nahele, those weeds may be placed in this level, or any open spaces in the previous level.

In wao akua, everyone works together. Thus, what occurs in this wao will affect everyone on the board.

We are pau once we’ve fully restored the ‘āina with lā’au. If we aren’t pau before 30 mahina phases, we are doomed with

To mālama ‘āina, we must also learn to be adaptable. Sometimes, our ‘āina may pose unpredictable challenges.

We begin each day by taking a roll of the die. By chance, we may be blessed with inputs of rain, or humus from our plants. However, we are also potentially faced with drought, losing our humus, or having sick maka‘āinana.

Defining Hawaiian Terms:
Wao - Level, forest, ecological zone
Lā’au - Plant(s)
Ho’okupu - To make an offering
Wao Kānaka - Level 1, place of dwelling
Wao Nahele - Level 2, managed forest
Wao Akua - Level 3, native Forest
Pau - Finished, complete
‘Āina - Land, family, that which feeds
Mālama ‘āina - To care for, nurture land
Maka‘āinana - Commoners
To restore ʻāina, we must plant lāʻau. Lāʻau are collected from the lāʻau deck. Each lāʻau card contains information that is relevant for mālama ʻāina. Lāʻau type is useful for trading mulch. Functionality is useful for trading tools, obtaining hoʻokupu, or reversing injuries. Wai requirements inform how much of our wai resources to use.

Mahina dictates which lāʻau are successful during certain phases. When we plant under the correct mahina phase, we are deepening our connection with lāʻau. Each mahina starts a new day, or round. There are a total of 18 rounds. We are able to plant on an unproductive day, however if the description states, “no planting,” there is absolutely no planting allowed.

Defining Hawaiian Terms:
ʻĀina - Land
Lāʻau - Plant(s)
ʻAi - Food
Lāʻau lapaʻau - Medicine
Mea Hoʻohana - Utility
Wai - Fresh water
Inoa - Hawaiian name
Mahina - Moon
Anahulu - 10-day moon period
Moku - Land division
Lepo - Soil
If three (3) weeds are in an empty lā‘au space, flip the weeds over to become an invasive tree. An invasive tree consumes two (2) wai points. An invasive tree can only be removed with a tool, however this tool is lost after removing an invasive tree.

If one (1) mulch is placed into a lā‘au space, it can be invaded and removed by two (2) weeds.

Mulch is used to protect our lā‘au from weeds. Mulch is obtained from trading lā‘au, or rolling the die. Two (2) mulch pieces fully protects a lā‘au space. One (1) wai point is gained for every piece of mulch placed. If one (1) mulch is placed into a lā‘au space, it can be invaded and removed by two (2) weeds.

Weeds are obtained by rolling the die and placed at random. Three (3) weeds are able to fit within a lā‘au space.

It is important to be mindful of our resources. Pono practices means managing our resources wisely. Because wai is our most limited resource, placing mulch under lā‘au can protect our wai, lā‘au, and allow us to reach higher levels. Once we reach “0” wai, we are not able to plant lā‘au. However, we may request permission to use wai from our neighbors sharing the same wai resource.
Pā | Point Board

The pā is used to keep track of your resources. A legend is located to the left of the pā defining the different resources.

Konohiki | Land Manager
The first player to obtain nine (9) piko points becomes konohiki of the island. A konohiki is able to manage all resources in areas that are accessed, but cannot manage a locked wao. Konohiki have the authority to plant or remove lā’au, or remove or place weeds. A player with an invasive tree in their moku may not become konohiki. If a konohiki obtains an invasive tree, they lose their position and the next player with nine (9) piko points becomes konohiki.

Ho’okupu | To make an offering
Certain protocols preserve the respect and value of our natural resources. Ho’okupu is obtained by trading ceremonial lā’au.

Mea Hana | Tool
Removing weeds and invasive trees, mea hana increase the work of our maka‘āinana. Mea hana is obtained by trading utility lā’au.

Maka‘āinana | Commoner
Members of a player’s community. One (1) maka‘āinana is added when one (1) ‘ai is planted. They help to mālama weeds, and mea hana are used to double their work. One (1) maka‘āinana is able to remove one (1) weed, but with a tool can remove two (2) weeds.

Wa’a | Canoe
Used to travel to different moku and trade lā’au. One cannot trade lā’au with another player without a wa’a. A wa’a is obtained by trading utility lā’au.

Piko | Crest
A piko point is awarded for planting lā’au under the optimal mahina phase. Piko points are only used to become konohiki.
Mahina & Lā‘au | Productive planting

There are a total of 30 mahina phases in the Hawaiian mahina calendar. Our kūpuna understood mahina and its relationship to lā‘au through generations of deep observation and insight. Each mahina is unique and associated with inoa. The phases are combined into 18 rounds of mahina sharing similar planting characteristics. The following information further elaborates the description of each mahina card, including lā‘au that may or may not be planted, and are grouped by their round number.

Defining Hawaiian Terms:
Mahina - Moon
Kūpuna - Elders, ancestors
Inoa - Hawaiian name
Moku - Land division
Lā‘au - Plant(s)

No piko points are rewarded under this mahina

Productive: Trees, ‘uala, kalo, mai’a

No planting allowed; weed removal is doubled. (i.e., 1 person removes 2 weeds, and with tool removes 4 weeds.)

Productive: ‘Olena, ‘uala, ‘awapuhi, kalo

Everything productive, except: Laua‘e, palapalai, wahine noho mauna

All planting is productive.

Productive: Trees, lā‘au lapa‘au
Hoʻomaka i ka huakaʻi
Let the journey begin...
What's Inside?

Make sure to check all game parts before playing the game. The game should include:

- (54) lā’au cards
- (18) mahina cards
- (56) weed chits
- (1) game board
- (15) dice stickers
- (2) dice
- (4) pā
- (1) konohiki
- (4) purple token
- (4) wai token
- (112) orange token

Assembling the Dice
The first time the game is played, the dice will need to be assembled for the game. Dice stickers with similar background colors will share the same dice. The first dice is a multiplying factor and will have (2) faces each of X1, X2, and X3. Match the dice stickers with the following guide:

<table>
<thead>
<tr>
<th>Dice 1</th>
<th>Dice 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1</td>
<td>+</td>
</tr>
<tr>
<td>x1</td>
<td>-</td>
</tr>
<tr>
<td>x2</td>
<td>+</td>
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<tr>
<td>x2</td>
<td>+</td>
</tr>
<tr>
<td>x3</td>
<td>-</td>
</tr>
<tr>
<td>x3</td>
<td>+</td>
</tr>
</tbody>
</table>

How many players?
Two to four (2 - 4) players are able to play this game. If there are two (2) players, select between the leeward or windward side. If there are three (3) players, use the grey polygon to cover the moku unselected by other players.

Important Note:
Our publisher uses a laser cutter to cut out pieces for the game, which leaves a black soot on some of the game pieces. After opening the game for the first time, make sure to grab a paper towel, add light moisture, and wipe off any residue from the game pieces.

Should you find any mismanaged or missing game parts, please contact Kahealani@vegcontinuum.com.
1.) Place the board in the center of the players.

2.) Players select a pā and match it to the colors on the board. The color of the pā represents a player’s moku. Review both sides of the card before playing.

3.) Each player receives one (1) wai token, which is placed on the wai point labeled “11.” This signifies a full set of water. Depending on lā’au planted or presence of an invasive tree, the token moves towards “0.” Players are not able to plant lā’au if they have no more wai, unless they receive permission from the neighbor connected to their water source.

4.) Each player receives one (1) purple token to keep track of their moves. This is optional, but helpful as the game goes along. Each player is allowed (3) moves per turn.

5.) Shuffle the lā’au deck and hand out (4) lā’au cards to each player. After distributing the cards, split the deck evenly into two separate decks and place on either side of the board face-down. Players may select cards from either deck during game play.

6.) With mahina cards facing up, order the cards from 18 - 1, with 18 on top and 1 on the bottom of the deck. Now, place the deck face-down on the east side of the board, where the moon rises. The first card to be pulled from the face-down deck should be #1 (Hilo), and placed face-up on the west side of the board, where the moon sets. Each mahina card starts a new round and occur in chronological order.

7.) The orange tokens are used to track the resources on the pā. The first maka‘āinana labeled “player” counts as the player and can be marked before the start of the game.
Starting the Game

1. Players choose the first player to start the game (e.g. oldest, youngest, dice roll).

2. After the first player is selected, the rounds will move clockwise. Each round starts with a new mahina phase. The first player will reveal the mahina card from the East and read aloud the description on the card. The description explains what can or cannot be planted (refer to Mahina & Lā’au page).

Now, the game begins.

3. Each player has (3) moves. The first move is a roll of the die. For the next (2) moves, the player may select from the following:
   a. roll the die (again)
   b. plant lā’au
   c. trade (1) lā’au
   d. remove weeds

4. At the end of the player’s turn, the player restocks their hand to (4) lā’au cards.

5. At the end of each round, the next mahina card is pulled from the East to start a new round. Be sure to read the description aloud.

6. The game ends once the ‘āina is planted, or the last mahina phase occurs. If the ‘āina is not complete with planting, the island is doomed with famine.
Mahalo Nui Loa!

A final warm *aloha* and *mahalo* for *you* and the extensive support network who brought this vision to life. This work was energized by the *mana* dwelling within each of us; the inherent understanding of our deep and intimate connection with ʻāina. To illuminate beauty and love in the world, we must live it. May this game encourage you to find meaning in mālama ʻāina, as we move towards a future of ʻāina momona.

Join the Vegetation Continuum ʻOhana - our living social network! We would love to hear your feedback on the game, suggestions for improvements or additions, and you can participate in brainstorming new board game ideas! Scan the QR code to get started. Sign up is simple and free!