

VEGETATION continuum

Instruction Manual

Ages 12+



2-4 Players

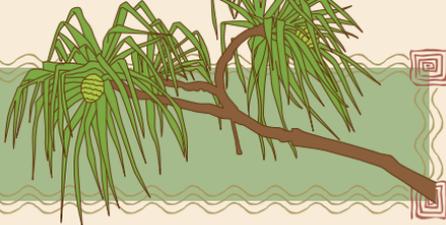


90-120 min



Vegetation Continuum

A tribute to its Genealogy



The idea of a *Vegetation Continuum* emerged from a working group called "*Lāā 'ike 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 *nā'au* (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, Donovan 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? Donovan introduced me to my mentor Jeff Vierra, Hawai'i's board game expert. His reaction to the *mo'olelo* (story) of this board game idea activated a new source of inspiration and love for graphic design.

After designing the first paper cut-out prototype, 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 *lā'au* functionality icons, while Lynn Batten, Flame Porter, Nanea Keli'i, Charnel Colin, Sarah Itoh (and Kiana Adams), Chelsie Onaga, and Cheryse Kau'i Sana helped with the mechanics and objectives of the game. My deepest love to MA'O and 'ai 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 *lā'au* 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 *pohakus*: Mom, Eilene, Asia, Keanu, and my 'ohana 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 'āina*.

Me ka mahalo nui (with deep gratitude),

Kahealani Acosta, Designer
The *Vegetation Continuum* Board Game

Introduction



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 ululā'au
The rain follows the forest

Wai is our main source of wealth, thus it is our *kuleana* to restore the *lā'au* 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 & Lā'au
- 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

Lā'au - Plant(s)

Mahina - Moon



E Hele Wāwae

Let's walk-through

The Game Board



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.



Mahina



Lā'au

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!

Leeward



Windward

These are *lā'au* spaces, where *lā'au* and weeds are able to grow. The lines in each *lā'au* space delineate the space for weeds to grow.

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 Game Board

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

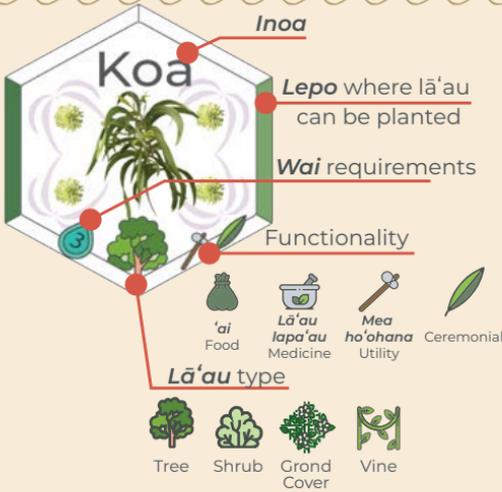
Pau - Finished, complete

'Āina - Land, family, that which feeds

Mālama 'āina - To care for, nurture land

Maka'āinana - Commoners

Mea Nui | Game Components

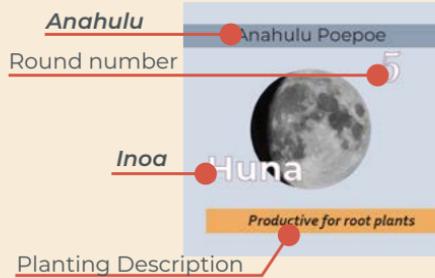


Lā'au Cards

To restore 'āina, we must plant lā'au. Lā'au are collected from the lā'au deck. Each lā'au card contains information that is relevant for mālama 'āina. Lā'au type is useful for trading mulch. Functionality is useful for trading tools, obtaining ho'okupu, or reversing injuries. Wai requirements inform how much of our wai resources to use.

Mahina Cards

Mahina dictates which lā'au are successful during certain phases. When we plant under the correct mahina phase, we are deepening our connection with lā'au. 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:

- 'Āina - Land
- Lā'au - Plant(s)
- 'Ai - Food
- Lā'au lapa'au - Medicine
- Mea Ho'ohana - Utility
- Wai - Fresh water
- Inoa - Hawaiian name
- Mahina - Moon
- Anahulu - 10-day moon period
- Moku - Land division
- Lepo - Soil



Player moku are separated by lepo type. Lepo determine where lā'au can grow. The colors bordering the lā'au cards represent the different lepo on the board. If a color is not highlighted, the lā'au cannot grow in that given lepo.

Pono | Beneficial Practices

Each player is allocated eleven (11) *wai* points. *Wai* is used depending on the requirements of the *lā'au* planted.



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

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.

Lā'au covered with three (3) weeds are removed from the board and the space is reset without any 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.

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 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*.

Player's Moku

Leeward

Keep track of player's move

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*.

Konohiki

Piko | Crest

A *piko* point is awarded for planting *lā'au* under the optimal *mahina* phase. *Piko* points are only used to become *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*.

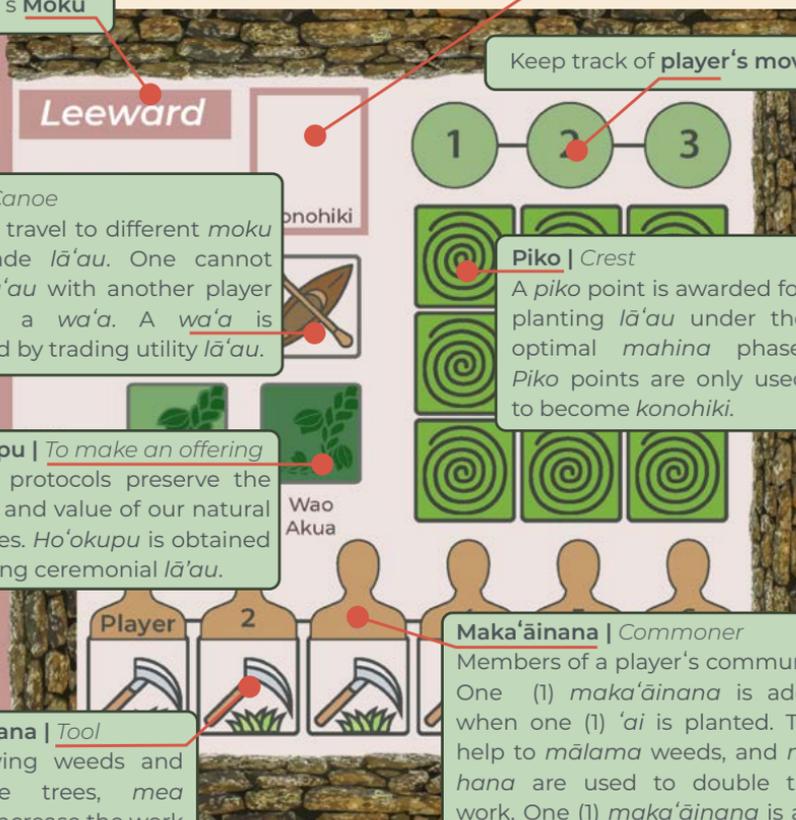
Wao Akua

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.

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*.



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.

Anahulu Ho'onui

1

Hilo

No piko points are rewarded under this mahina

Anahulu Ho'onui

2 3

Hoaka

Productive:
Trees, 'uala, kalo, mai'a



Anahulu Ho'onui

4 13

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

Anahulu Poepoe

5 9 11

Huna

Productive:
'Olena, 'uala, 'awapuhi, kalo

Anahulu Poepoe

6 7 10

Mohalu

Everything productive, except:
Lau'a'e, palapalai, wahine noho mauna

Anahulu Poepoe

8 14 16 17 18

Akua

All planting is productive.

Anahulu Poepoe

12

Productive:
Trees, lā'au lapa'au




Anahulu Ho'emi

15

Kāne

No planting allowed.

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

Ho'omaka i ka huaka'i

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



Lā'au



Mahina

(18) mahina cards

(56) weed chits



(15) dice stickers



(4) pā



(1) konohiki



(4) purple token



(4) wai token



(112) orange token



(2) dice



(1) game board



(1) instruction manual



(1) grey polygon



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:

Dice 1	x1	x1	x2	x2	x3	x3
Dice 2						

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.

Should you find any mismanaged or missing game parts, please contact Kahealani@vegcontinuum.com

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.

Setting Up the Game

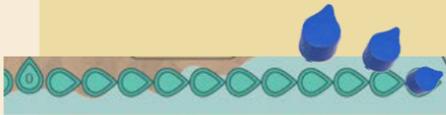


1.) Place the board in the center of the players.

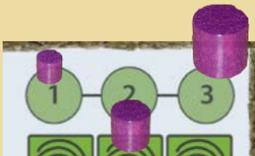
2.) Players select a pā and match it to the colors on the board. The color of the pā represents a player's moku. Review both sides of the card before playing.



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:

- roll the die (again)
- plant *lā'au*
- trade (1) *lā'au*
- 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.

Faces of the Die



+

Injury

(+) *Maka'āinana* are sick/injured and unable to help remove weeds for an entire turn. One (1) *lā'au lapa'au* will heal each injury/illness and is returned to *lā'au* deck. Healing *maka'āinana* does not count as an additional move.

Mulch

(+) Add mulch
(-) Lose mulch



Wai

(+) Add *wai*
(-) Lose *wai*



Weeds

(+) Add weeds



Multiplier

Multiply other dice by these values

x1

x2

x3

Trading

This may only occur with (1) *lā'au* at a time, unless trading for *wa'a* or *ho'okupu*. A *wa'a* is required to trade with another player. *Refer to pā legend for trading strategies.*

Weed Removal

One (1) *maka'āinana* is able to remove one (1) weed, but with a tool can remove two (2) weeds. An invasive tree requires a tool for removal, but is lost after use.



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 *'āina*. To illuminate beauty and love in the world, we must live it. May this game encourage you to find meaning in *mālama 'āina*, as we move towards a future of *'āina momona*.



Join the ***Vegetation Continuum 'Ohana*** - 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!





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