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Social Justice Through Beach Access and Community-Based Placemaking in Puna, Hawai'i

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Social Justice Through Beach Access and Community-Based Placemaking in Puna, Hawai'i

By

Yumi-Shika Shridhar

Accepted in Partial Completion
of the Requirements for the Degree
Master of Arts

ADVISORY COMMITTEE

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GRADUATE SCHOOL

David L. Patrick, Dean

Acknowledgments

Thank you to my committee, Dr. James Miller and Dr. Tammi Laninga for providing me with support and resources throughout my project. I would also like to thank the participants who completed my online survey for helping me gain a better understanding of recreational experiences in Puna. And I am very thankful for the residents of Puna that I had the opportunity of interviewing and learning their stories, listed below:

Amadeo	Farrend	Leimana
Andrea "Drea"	Heather	Margaret
Carol	John	Smiley
Chris & Holly	Kalehua & Keali'i	Susie
Dawn	Kendra	
Donna & Family	Kipu	

Lastly, thank you to all the Hawai'i County Staff and Key Stakeholders of Revitalize Puna and the restoration of Pohoiki for sharing with me your involvement in restoration projects and plans to strengthen and enhance the Puna community's networks and resilience.

Ashley Kierkiewicz, Hawai'i County Council, District 4

Janice Ikeda, Executive Director, Vibrant Hawai'i

Robert Agres, Disaster Recovery Engagement Manager, County of Hawai'i

Garrett Smith, Recovery & Redevelopment Manager, County of Hawai'i

Maurice Messina, Director, Parks and Recreation, County of Hawai'i

Susie Osborn, Head of School, Kua O Ka Lā Public Charter School

Land Acknowledgment Statement

I acknowledge and understand that I am not a resident of Hawai'i nor of Hawaiian descent, and therefore should not make suggestions on what Hawai'i County needs to change about their Revitalize Puna program based on my own experiences and knowledge. As I am an outsider to the Puna community, bringing in ideologies from the mainland and expecting Hawai'i County to implement them encourages a colonizer mindset, which is harmful to the experiences of the residents of Puna and their cultures that they work hard to preserve. The goal of my research project is to amplify the voices of Puna residents and create a list of recommendations for Hawai'i County based only on the recreational experiences of Puna's residents, providing help to the community without being a hinderance to them.

- Yumi-Shika Shridhar

Social Justice Through Beach Access and Community-Based Placemaking in Puna, Hawai'i

A Field Project
Presented to
The faculty of
Western Washington University

In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts

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Yumi-Shika Shridhar
Winter 2023

Abstract

This project investigates how tourist-dependent regions can implement community-based placemaking to create an inclusive outdoor space and experience for both tourists and locals. My area of focus is on Puna District, located on the southeast side of Hawai'i's Big Island; their community was damaged by a volcanic eruption from Mount Kīlauea in 2018. The county, economic development organizations and community members are working to rebuild the region and infrastructure and reopen parts of the land covered by the lava. The research is conducted through a case study methodology of the Puna District and how the area is revitalizing their region, including their beach parks. Components of the case study included a secondary data analysis, context mapping, windshield survey, an online survey and interviews. This data was analyzed to create a list of recommendations on how Hawai'i County as well as other counties recovering from disasters can revitalize their public spaces to be more inclusive to both locals and visitors.

Table of Contents

Acknowledgments.....	2
Land Acknowledgment Statement.....	2
Abstract.....	4
1. Introduction	7
2. Project Purpose.....	8
3. Case Study Context: Revitalize Puna.....	9
4. Methods.....	13
Phase I.....	14
Case Study.....	14
Secondary Data Analysis	15
Context Mapping	15
Phase II.....	16
Windshield Survey	16
Interviews.....	17
Surveys.....	19
Analysis	19
5. Data Analysis.....	20
Mapping Analysis	20
Windshield Surveys.....	27
Interviews.....	46
6. Recommendations	56
7. Conclusion.....	60
Works Cited.....	63
Appendix	67

List of Figures

- Figure 1. Puna community members discussing economic resilience in Puna (Revitalize Puna).
- Figure 2. Timeline of research project spring 2022 to summer 2022 (Shridhar 2022).
- Figure 3. Lava blocking a road exiting Pohoiki beach (Shridhar 2022).
- Figure 4. An interview with a community member at Kahuwai (Shridhar 2022).
- Figure 5. Graduate students Taylor Webb and Yumi Shridhar post survey posters at the University of Hawai'i Hilo campus (Shridhar 2022).
- Figure 6. The change in lava displacement in lower Puna District June 14-19, 2018 (USGS 2018).
- Figure 7. Final displacement of the Lava in low Puna District August 14, 2018 (USGS 2018).
- Figure 8. Topographical map of Puna District (Hawai'i Statewide GIS Program, 2020)
- Figure 9. Simulation of the Lava Flow from Fissure 22 (USGS)
- Figure 10. Thickness of the lava flow in Puna (USGS 2019).
- Figure 11. Comparison of Four Corners before and after the eruption (Google & Apple 2022).
- Figure 12. Isaac K. Hale Beach Park before and after the eruption (Google & Apple 2022).
- Figure 13 (left). Routes to Pohoiki (Apple 2022).
- Figure 14. Before and after map comparison of Ahalanui (Google & Apple 2022).
- Figure 15. Beach access points on O'ahu (Hawai'i Statewide GIS Program).
- Figure 16 (left). A road covered by lava, blocking the entrance to Isaac K. Hale Beach Park (Shridhar 2022).
- Figure 17. Signage at the Pohoiki Beach Park
- Figure 18 (left). A sign signifying a sacred area in Pohoiki (Shridhar 2022).
- Figure 19. The Pohoiki boat ramp blocked by the lava, left. Former Pohoiki Bay breakwater, right (Shridhar 2022).
- Figure 20. Plans to dredge the lava blocking the Pohoiki Boat Ramp (Hawai'i County 2022).
- Figure 21. A ziplining tour bus makes a stop at Pohoiki Beach (Shridhar 2022).
- Figure 22. Amadeo points out the differences between invasive and native trees (Laninga 2022).
- Figure 23. Map of the fissures found in Puna (Hawai'i County Department of Civil Defense 2018).
- Figure 24 (below). A view overlooking Fissure 8 (Shridhar 2022).
- Figure 25 (left). Lava damage on a house close to Fissure 9 (Shridhar 2022).
- Figure 26. Pāhoā Lava Zone Museum (Main Street Pāhoā).
- Figure 27. Pahoā Aquatic Center (Shridhar 2022).
- Figure 28. Pahoā Recreation Center (Shridhar 2022).
- Figure 29. Rainbow Falls (Shridhar 2022).
- Figure 30. Signage at Waipi'o Valley Lookout Point (Shridhar 2022).
- Figure 31. Yumi Shridhar passing out flyers at the Hawaiian Acres Farmers Market (Laninga 2022).
- Figure 32. Swimming area and gathering area of Onekahakaha Beach Park (Shridhar 2022).
- Figure 33. Mount Kīlauea Crater (Shridhar 2022).
- Figure 34. Signage at the Petroglyphs site (Shridhar 2022)
- Figure 35. Hawaiian Shores Community Association (Shridhar 2022).
- Figure 36. Kahakai Beach Park (Shridhar 2022).
- Figure 37. Sea Arches at Kahuwai (Shridhar 2022).
- Figure 38. Amadeo's house "Miracle House" at Four Corners (Shridhar 2022).
- Figure 39. Smiley's plot of land at Four Corners (Shridhar 2022).

1. Introduction

In the spring and summer of 2018, Mount Kīlauea on the big island of Hawai'i erupted, wiping out much of the land on the southeast coast of the island, in the Puna District. Even though volcanic eruptions are common in Hawai'i and ingrained in Hawaiian legends and traditions, this eruption is considered “one of the largest volcanic events in Hawai'i in 200 years”, with 723 buildings destroyed and fifty kilometers of public roads cut off, creating challenges in evacuation (Houghton et al., 2021, p.1). The lava flow destroyed four residential subdivisions in Puna and damaged infrastructure and resources serving unaffected homes. Years after the eruption, the Puna District still does not have adequate infrastructure to accommodate their community's needs.

In terms of recreation, the residents of Puna lost access to their shoreline as the lava destroyed main access routes for the beaches and extended Hawai'i's southeast coastline, transforming the coastline Puna District. Isaac Kepo'okalani Beach Park, located in the Ahupua'a of Pohoiki, is the only beach remaining in Puna accessible by the public, however, the boat ramp that was heavily used by fishing boats was cut off from the water by extensive lava flows. This loss is particularly problematic as this boat ramp was one of the most active boat ramps in the State of Hawai'i and supported much of Hawai'i County's economic vitality and cultural resistance (Glazier et al, 2009, p.9). Despite Puna District losing significant recreation access and public beaches, tourism in Puna increased following the eruption. Tourist boats brought visitors to view active lava flowing into the ocean and changing the shoreline (Meredith et al, 2022, p.8), and visitors drove through subdivisions to see the lava's destructive path. Even though tourism helps create jobs and business opportunities for the residents of Puna, increased numbers of tourists in the Puna District after the eruption negatively impacted the community as it exploits the struggles of the community and causes disturbances in cultural recreation.

Revitalize Puna is a community-driven program lead by the County of Hawai'i to restore resources and infrastructure that the lava destroyed. The program is also enhancing social capital by creating networking opportunities and district-wide social events that inspire the residents of Puna to gain stronger affinity for their community. For Revitalize Puna to be a community-driven program, the County of Hawai'i worked in collaboration with the program to offer interactive workshops to gather input from the community. I was particularly interested in learning from and contributing to Revitalize Puna's efforts to work with the community to restore Puna's recreational areas such as Isaac Hale Beach Park.

2. Project Purpose

I want to understand how a community's connection and understanding to the land helps them to make community decisions on how to shape a recreational space. Additionally, I am interested in learning how a community that has strong connections to their land welcomes tourists and what the residents would want that type of tourism to look like. Below are three research questions I curated to help me understand how a community ties together their connections to land with tourism:

- **Primary Question:** What are some practices that communities can do to ensure the balance of community-driven placemaking and tourism?
- How can public spaces be designed to serve both the needs of tourists and residents?
- How will the implementation of sustainable recreational tourism and beach access incorporate equitable access for local communities?

Since I had not been to Puna District nor learned about the land prior to this project, it was important for me to learn about Puna and Hawai'i's efforts in restoring Puna's infrastructure before I enter the area. For this project, I utilized a case study methodology to analyze social justice through community-based placemaking and beach access. My research was separated into two phases; in Phase I, I learned about the Puna through maps and research about Revitalize Puna and in Phase II, I traveled to Puna to learn about recreation directly from the community members. I did not want to come into a community that has generational ties to their land to tell them what I think should change about their home. Instead, I gathered and amplified voices and opinions of the community members of the Puna District to form a list of recommendations for Hawai'i County to consider throughout the progression of Revitalize Puna. This case study is specific to a particular place, but it is my hope that the new lessons learned in this context can be applied more broadly to other communities recovering from disasters and/or balancing community needs with tourist demand.

3. Case Study Context: Revitalize Puna

The primary effort to restore Pohoiki's Isaac Kepo'okalani Hale Beach Park is being undertaken by Revitalize Puna and led by the County of Hawai'i Kīlauea Eruption Recovery Division and Hawai'i County's Council District 4 led by Ashley Kierkiewicz. The purpose of Revitalize Puna is to create a Strategic Placemaking Implementation Plan that will strengthen human and social capital in the Hawai'i Resilience Plan. The County of Hawai'i received \$225,000 from the Rural Placemaking Innovation Challenge grant administered from the US Department of Agriculture. The program created six action streams: social, cultural, economic, built environment, youth, and natural environment. Each of these teams work on their own aspect of enhancing public spaces, including Isaac Hale Beach Park. Every three months, each of the action groups gets together to inform the residents of Puna as well as collect community opinions on the progress of Revitalize Puna.

Revitalize Puna is an initiative meant to empower the people to design a Strategic Placemaking Implementation Plan that is unique to the Puna District. Thus, there are plenty of stakeholders needed to participate in Revitalize Puna. Below is a list of major stakeholders that are heavily invested Revitalize Puna:

- **County of Hawai'i.** The leading stakeholder for Revitalize Puna and Vibrant Hawai'i.
- **Department of Parks and Recreation.** The Parks and Recreation Department aims to maintain, protect, and provide inclusive access to public spaces. The department created the Friends of Parks organization in which community members volunteer to help maintain the parks.
- **Vibrant Hawai'i.** An organization that created resilience hubs that connect the community to local businesses and resources while also preparing the community to overcome disasters in the future.
- **Puna Rising.** A group that enhances the Puna community through community development events and offers opportunities to support and amplify local Puna businesses.
- **Lower Puna Rising.** A group that advocating for the full recovery of the lower Puna area, more specifically the areas that the 2018 volcanic eruption negatively impacted. Their aim is to allow access to roads, water, and electricity to the community members following the disaster.
- **Pohoiki's Families.** Kānaka Maoli who live on Pohoiki Ahupua'a and whom the land belongs to. Hawaii County and Puna residents recognize that as the projects and planning for Pohoiki's Isaac K. Hale Beach Park progress, the Pohoiki families must be intimately involved in the planning process.

The first event for Revitalize Puna was in June 2021. Since then, with support from Hawai'i County, the program has periodically brought the community together to build social capital and connections between the community and resources to continue recovery efforts and to prepare the Puna community for future Kīlauea eruptions. The bulleted list below shows a timeline of events Revitalize Puna hosted to foster community participation and feedback to ensure that Revitalize Puna is completely a community-driven place-based program. This timeline ends at summer 2022 as that was the designated completion of my field study :

- **April 2021** – Hawai'i County launched the Voluntary Housing Buyout Program.
- **9 June 2021** – First Revitalize Puna event, held in the Leilani Estates. In this event, Hawai'i County introduced Revitalize Puna as a “new way for the government to not just be engaging with the community, but working hand in hand, in partnership with the community” (Ashley Kierkiewicz, Revitalize Puna, 2021). To ensure that community members participated the Revitalize Puna event, there were three different time slots with the same meeting contents that as many people as possible a chance to participate in discussions.



Figure 1. Puna community members discussing economic resilience in Puna (Revitalize Puna).

- **July 2021** – Council District 4 and the Disaster Recovery Division created a proposal for USDA funding towards the implementation of the Kīlauea Recovery & Resilience Plan (KRRP).
- **12 October 2021** – Second quarterly meeting. The goal in this meeting was to “set the table”, in which Hawai'i County introduced the structure and foundations of the Revitalize Puna project. Additionally, Hawai'i County informed the community of its updates and revisions on Revitalize Puna. This event occurred through Zoom, so only community members who have access to the internet and the Zoom application were able to access this meeting, however, Hawai'i County

ensured optimal access to the meeting by holding multiple meetings at separate times as well as uploading the presentation slides onto the Revitalize Puna website.

- **11 January 2022** – Third Revitalize Puna event, held on Zoom. The focus of this meeting was the revitalization of Isaac Kepo’okalani Hale Beach Park. Hawai’i County, in the previous Revitalize Puna event, sent the community feedback forms via Google Forms about how they thought the quality of the proposed plans to spend Federal money for inundated County assets. The results of this feedback included perspectives on all viewpoints, in which Hawai’i County recognized that they needed to revise their revitalization plans further. Additionally, the feedback included areas of interest for the revitalization project, which included water, road, and park priorities. Water priorities included access to water sources, support for Nānāwale Estates, and the restoration of the Pohoiki’s Boat Ramp. Under road priorities, the community supported the restoration of upper Pohoiki as well as Highway 137 and access to the lighthouse. The park priorities included the restoration of Isaac Hale Beach Park. The process to understand the needs and desired outcomes required optimal community engagement, including engagement from those who have not yet attended the Revitalize Puna meetings. Hawai’i County created pop-up interactive events around Hilo and Puna in areas that Puna’s residents go to the most. These pop-up events allowed the County to come to the people to gather more input about what they would like to see in the revitalization of Pohoiki. The following five events on the timeline were the pop-up interactive events:
 - **23 January 2022** – In-person Engagement event at the Pāhoa Skate Park Market.
 - **27 January 2022** – In-person Engagement event at Isaac Kepo’okalani Hale Beach Park.
 - **5 February 2022** – In-person Engagement event at Hilo Coffee Mill Farmers Market.
 - **10 February 2022** – Online Engagement event on Zoom.
 - **13 February 2022** – In-person Engagement event at Maku’u Farmers Market.
- **11 April 2022** – Quarterly Revitalize Puna event, held in the Sure Foundation Church in Kea’u, Puna. The theme for this event was “Seeing is believing,” as this event displayed to the community how their *mana’o*, or ideas, have shaped the County’s decision-making as well as process planning towards the revitalization of Pohoiki and the restoration of the boat ramp. This meeting was crucial in establishing trust between the Puna residents and Hawai’i County such that the community became more open for the County’s assistance. The meeting discussed proposed plans for the resilience hubs, the Voluntary Housing Buyout Program, mass public transit, wastewater, ground water, and roads recovery (Hawai’i County, 2021).
- **April – June 2022** – Paint Pāhoa Town. The purpose of this event was to enhance the main street of Downtown Pāhoa, Pāhoa Village Road. The community repainted the storefronts to maintain the bright colors of the buildings and painted open community spaces with the theme of “*ke ha’a la Puna I ka makani*,” or “Puna is dancing in the wind.” This theme reminded the community of their relationship and connection to the land they live on and inspires community pride in Puna (Hawai’i County, 2021).

- **2 July 2022** – Activate Puna Block Party, held at Downtown Pāhoa. This event brought the community together to support local businesses, artists, musicians, and organizations. It also celebrated Puna culture and stories, strengthens social and economic capital, and invited locals to beautify community spaces (County of Hawai'i).
- **12 July 2022** – Quarterly Revitalize Puna event, held at the Pāhoa District Park Gym. The theme of this event was “Growing Together,” in which the County as well as their Resilience Capacity Area partners distributed various seeds and six large banana trees to the community. The County updated the community on plans for infrastructure investments in roads, water, and parks. Local businesses set up booths during the meeting so that the community learned about and connect with them. Following the event, Hawai'i County sent the community an event reflection survey so that the community in which the community informed the County if their engagement was satisfactory and offered any suggestions for the County to improve.
- **18 August 2022** – Presentation and discussion of the draft pre-design report of the Pohoiki Boat Ramp, held at the Pāhoa Community Center.
- **11 October 2022** – Quarterly Revitalize Puna event, held at the Pāhoa District Park Gym. [no information on event online]

The importance of the quarterly meetings was to keep the community informed and to continue to receive community input on progress made and timelines for longer-term projects. For example, the county estimated that the construction projects to dredge the boat ramp at Pohoiki and open more shoreline access from the Four Corners intersection would take years to complete.

Of particular interest and relevance to my research is the work of one of the six Resilience Capacity Areas specific to cultural preservation and management, the Cultural Resilience Capacity Area (C-RCA), chaired by Leila Kealoha, Leah Gouker, and Bob Agres. This resilience branch works towards the protection of the culture and traditions of Pohoiki. One comment given to the C-RCA in relation to Pohoiki is:

“This place is a sacred special place – this is not a park; it is more a Wahi Pana. This is a storied place. When you come here – you are like haumāna (student), you suck up mana’o and ike, you are humbled.” -Anonymous Community Member (Revitalize Puna)

The C-RCA, in their planning for Pohoiki and other important recreation and tourist areas in Puna, are working to ensure that community feedback like this are used to inform their decision making. In a meeting with Bob, he stated that the C-RCA recommends developing culture/place-based education programs, community training in tourism, and Pohoiki cultural events to enhance community-based stewardship and cultural resilience. This would provide education for the locals on how they can modify their businesses to incorporate regenerative tourism as well as train larger tourist businesses on how to respectfully lead tours without exploiting Hawaiian struggles following the eruption.

4. Methods

A challenge in helping support Puna's community is how to provide technical assistance to the community as an outsider. Native Hawaiian residents of Puna continue to be subjugated to settler colonialism. A contemporary manifestation of settler colonialism is reflected in the process in which people from the mainland United States move into Hawai'i and buy property, raising the price of living for the locals and driving them out of their homes. This behavior of privileged consumerism also affects the broader population of long-term Puna residents. Outsider perspectives to Hawaiian communities can be very harmful to the locals and a layer of distrust is created by the locals towards mainlanders who try to help the islands. It is important for people from the mainland to understand the needs of the residents through methods that provide the researcher with a clear understanding of the community's built and natural environment, as well as allow the researcher to interact with the locals and understand their personal needs for their community.

As I am not from Hawai'i, I relied heavily on the support from Hawai'i's place-based organizations as well as my advisor Dr. James Miller to guide me throughout my project and assist me in proceeding with my research such that I am not speaking over the needs of the residents of Puna. Puna's place-based organizations helped me determine which residents I should reach out to for my interviews as well as which places to visit for my windshield surveys. Organizations such as Main Street Pāhoa helped educate me on the effects of the eruption of Mount Kilauea on the community as well as establish a stronger contextual understanding of the Puna District as they invited me to visit the Pāhoa Lava Zone Museum. Additionally, my advisor provided overall guidance to my project as my research project was to assist his work in advising the County of Hawai'i's Comprehensive Plan. He brought me to meetings with council members of the County of Hawai'i as well as introduced me to pivotal figures in the Revitalize Puna Progress, from the program's leaders to people from other organizations who the program affected.

For this research project, I used a case study methodology that included a number of methods that helped me understand the context of place as well as understand the direct needs of the community. The case study method is a useful research approach to use to contribute to the already established knowledge of individual, group, organization, and other similar phenomena (Yin, 2009). This method delves into deep and meaningful observations on real-life events, observing behaviors of small groups, communities, and the organizational processes that the observed community bases their decisions on (Yin, 2009). While conducting the case study, I used a number of methods. For example, I examined extensive documentation and survey data collected by Revitalize Puna during an Activate Puna event to study the Pohoiki's Isaac K. Hale Beach Park revitalization efforts. I also used secondary data analysis,

context mapping, windshield surveys, and interviews. My research was split into two phases. In Phase I, I conducted my research in Bellingham, Washington, and in Phase II, I went to Puna, Hawai'i. In Phase I, I conducted research using secondary sources, that I could access and use outside of the field site to learn about Puna. During Phase II, I gathered first-hand experiences and research of the Puna District as well as learned stories from the residents and government employees of Hawai'i County to create a list of recommendations that are unique to that area (Figure 2).

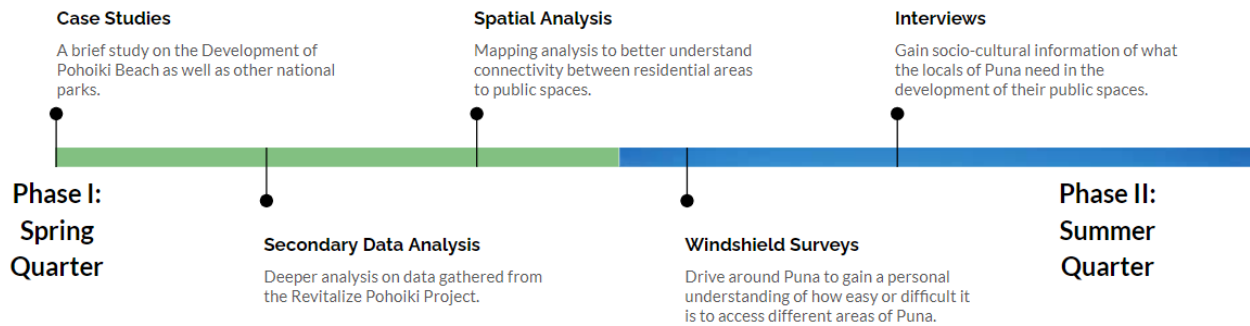


Figure 2. Timeline of research project spring 2022 to summer 2022 (Shridhar 2022).

Phase I

Phase I of the data collection of my research occurred in the spring quarter of 2022. During this time, I relied on data gathering methods related to secondary data. Methods included a case study, secondary data from Revitalize Puna surveys about Pohoiki, and spatial analysis.

Case Study

I used the redevelopment of Pohoiki's Isaac K. Hale Beach Park as focus of the case study for the further development of Puna's recreational spaces. This beach was transformed by the volcanic eruption from Mount Kīlauea in 2018, and currently, Puna's community members are working together on how they can create the beach into a community space through a program called Revitalize Puna. The process of Revitalize Puna would serve as a model for future parks and recreation plans for Puna and other parts of Hawai'i as this development process relies on community participation and responding to the needs of the residents. It is important to note that the Pohoiki case study will not be able to solely dictate what decisions should follow. I can only use this case study to connect my understanding to a real-life experience and help influence my decision-making (Breslin & Buchanan, 2008). In addition to using Revitalize Puna as a case study, I investigated other smaller case studies to conduct a cross-case synthesis, which is an analytic technique used to compare findings from multiple case studies (Yin, 2009), and observed how the different communities approach their revitalization projects as well as compare the processes and outcomes of each case study.

Secondary Data Analysis

Following the case study of Pohoiki, I analyzed survey data I gathered from the Revitalize Puna case study to better understand the reasons behind the residents' opinions and thoughts on the revitalization of the beach using the secondary data analysis method. This method analyzes already-known information and takes the information one step further, spurring more discussion and conclusions around the topic (Johnston, 2017). This method is ideal for scholars who have limited time and resources in their research to create information on their own. I am on a tight timeline in my own project as I am on the one-year track for my degree, so this method was the most useful for me to gather a large amount of research data in a short amount of time. I delved into the data gathered by the Revitalize Pohoiki project and analyzed the response data from the residents to use for my own project. In an online meeting for Revitalize Pohoiki that I attended in the winter, the planning committee showed results from a Visual Preference Survey that was previously sent out to residents of Puna, in which the residents rated various features that could potentially be added to Pohoiki Beach. In each of the topics, there are discussions about the pros and cons of each item from the community, and I studied the topics that stood out to me the most. One of the more controversial discussions that piqued my interest was the proposal of "Letting the 'āina (Land) rest" as a way for beach restoration rather than rebuilding structures on the beach right away, as it showed conflicts between cultural preservation and inclusive spaces. I analyzed the data presented from the Revitalize Pohoiki project, and then used the knowledge help me generate interview questions in the second phase of my research.

Context Mapping

Context mapping was used in Phase I of data collection. It includes map analyses on road access, before and after images of events, and incremental images of the changes of the land. As I gathered data in an area and community that I was not familiar with, it was important for me to use mapping to better understand the geographic relationship the local Puna residents have to their environment before I conduct interviews. I researched two types of topics: the first topic is spatial features and demographics of Puna, and the second topic pertains to locational analysis (Jerrett et al., 2003). I focused on the locational analysis to observe the Puna residents' accessibility to any public spaces.

For this project, I looked at already-existing maps of the Puna district to see the effects of the eruption on access to public spaces. My focus on this method was to compare side-by-side the before and after pictures of the eruption to show the changes in access and transportation routes in Puna. The existing maps that I showed in my analysis are comparisons between Google and Apple maps. Apple maps show more recent images of the Puna District while Google maps shows images of Puna before the 2018 eruption. The comparisons between the two mapping systems highlight the changes in transportation routes and issues the community may have with access to various locations. Additionally, I analyzed more on the changes that the 2018 eruption had on Isaac Hale Beach Park. All the access points to the beach were cut off after the eruption and only one road was restored, and I show in my data analysis the change in routes to go to the beach park.

Phase II

Phase II of my research project consists of in-person research as I visited Puna, Hawai'i, for two weeks over the summer. To collect information about the place and its residents, I used windshield surveys, online surveys, and interviews with residents. I combined the data collected from spring quarter about past development processes, community needs, demographics, and location with this segment of my research generated data from my experience in Puna as well as from the personal and emotional responses from the participants from my interviews.

Windshield Survey

In Puna, I conducted a windshield survey to personally understand the structure and quality of the roads and connectivity between neighborhoods and recreational spaces. For this type of survey, my project partners and I explored the roads and public spaces of Puna, taking notes on what we saw in terms of access and community. This method was helpful for me to personally understand how difficult travelling to different parts of Puna was and how the eruption of Mount Kīlauea negatively impacted the Puna community's transportation and access to parks. This method was previously used in research from Hartgen and Shufon (1983) looking into highway conditions, as the New York Department of Transportation collected data of the conditions of the roads by driving through the roads to assess their qualities in order to quantify the amount of maintenance as well as traffic on each road. Reflecting on this past research, I used this method to look at the accessibility that the local Puna residents have to their public spaces and how community is impacted by the road damages and blockages caused by the volcanic eruption. Figure 3 shows Kapoho-Pohoiki Road, an important access route to Pohoiki beach, cut off by lava flows.



Figure 3. Lava blocking a road exiting Pohoiki beach (Shridhar 2022).

The windshield surveys took place primarily on the first week that I was on the field. Table 1 shows the date as well as the location and key areas that I focused on for the windshield survey:

Table 1: Timeline of Windshield Survey and Goal

Date	Location & Goals
6/28	Pohoiki's Isaac Hale Beach Park <ul style="list-style-type: none"> • Road access and boat ramp.
6/29	Nānāwale Estates <ul style="list-style-type: none"> • Invasive species, lava bubbles, and construction. Lava Tree State Monument <ul style="list-style-type: none"> • Compare signage. Leilani Estates <ul style="list-style-type: none"> • Fissure sights and houses in the neighborhood.
6/30	Pāhoa Lava Museum <ul style="list-style-type: none"> • Additional information on eruption and tourist activity. Pāhoa Neighborhood Facility <ul style="list-style-type: none"> • Pool and athletic center.
7/1	Rainbow Falls <ul style="list-style-type: none"> • Access and visitor activity. Hawaiian Acres Farmers Market <ul style="list-style-type: none"> • Community and activity.
7/2	Onekahakaha Beach Park <ul style="list-style-type: none"> • Events.
7/3	Hawai'i Volcanoes National Park <ul style="list-style-type: none"> • Visitor behavior and signage.
7/5	Hawaiian Beaches Park <ul style="list-style-type: none"> • Private Park: amenities and access Kehakai Park <ul style="list-style-type: none"> • Parking and activity.
7/8	Kahuwai (Kamehameha property) <ul style="list-style-type: none"> • Permission to visit land
7/9	Four Corners <ul style="list-style-type: none"> • Road access to lighthouse and Isaac Hale Beach Park

Interviews

The second method that I used during Phase II of my data collection was to gather firsthand experiences from Puna residents through interviews as they are a form of gathering information in which results can come from a more socio-cultural point of view (Hollway & Jefferson, 2008). My goal with this method was to learn the diverse points of views of the Revitalize Puna process and what people personally value and want to see happen to Pohoiki's Isaac Hale Beach Park as well as other public places. I also asked

the interview participants about their recreational experiences before and after the Kīlauea eruption, to which I learned the depth of the impact that the eruption had on the Puna community’s lives.

I interviewed sixteen people during my time in Puna, all of with are residents of the Puna district with diverse backgrounds and affiliations to the community and government. The community members I interviewed were leaders in grassroots organizations and programs to fully recover Puna, volunteers for the Pāhoia Lava Zone Museum, current and former government members, educators, and parents. I identified each interview participant by asking previous community members who I can contact to ask if I could interview them.



Figure 4. An interview with a community member at Kahuwai (Shridhar 2022).

To gather more socio-cultural results from the residents’ personal connections to Puna’s public spaces, I asked the Puna community the following questions:

- How long have you lived in the Puna District? What area of Puna do you live in? What brought you to live in Puna District?
- What is the closest public park or public space near your home? How far away is it?
- How often do you travel to these public spaces? What brings you to these spaces?
- How do you commute to public spaces and how long does it take for you to commute?
- Do you feel that the parking spaces accommodate both residents and visitors to public areas?
- Is tourism prevalent in these areas? Do they affect your experience at beaches or parks?
- Have you participated or viewed the Revitalize Puna “Consider It” Survey? (If they answer no, I can talk about the results with them and gain their views)
- **What is something that you value in Puna’s public spaces?**
- What changes would you like to see or do not want to see in Puna’s beaches and parks?
- What is your stance on [Consider It survey result]?

Surveys

To supplement the interviews and gain quick responses from a wider audience, I created surveys to send out to the community to take part. I generated the surveys through Qualtrics and distributed them around Pāhoia on posters with QR codes. To ensure that I am capturing the attention of a large audience, I located areas in which community members of Puna would gather the most. Such locations include bulletin boards in the Pāhoia grocery stores, community centers, and the University of Hawai'i Hilo campus. Additionally, I distributed smaller fliers to the local vendors at farmers markets.

The surveys are primarily multiple choice and sliding scale answers regarding the community's recreation experiences and are separated into three topics—recreation in Pohoiki, why we recreate, and land use and access in Pohoiki. In the section on recreation in Pohoiki, I asked the participants how often they visit Pohoiki, how long it takes for them to get there, and their experiences in Pohoiki. My goal for this section was to understand the importance Pohoiki has on the community. In the next section, why we recreate, I ask the participants about the activities that they like to do that are special to Pohoiki.



Figure 5. Graduate students Taylor Webb and Yumi Shridhar post survey posters at the University of Hawai'i Hilo campus (Shridhar 2022).

Analysis

After I gathered my data, I created a list of recommendations for the County of Hawai'i to consider throughout the progress of Revitalize Puna. These recommendations were created solely through the opinions and concerns of the community members of Puna that I gathered data from as a way to amplify opinions that the community have felt been marginalized.

5. Data Analysis

Mapping Analysis

Over the spring, I examined various maps of the Puna district to better understand the environment of Puna and the dispersion of the population relative to recreational spaces and beach access. The maps that I gathered included maps from the United States Geological Surveys (USGS), the Hawai'i Statewide GIS Program, Apple Maps, and Google Maps. The USGS maps show the lava's movement and thickness during Kīlauea's eruption at hourly intervals. Google Maps and Apple Maps, on the other hand, were helpful in providing simple satellite images of lower Puna District to see the on-the-ground changes resulting from the eruption.

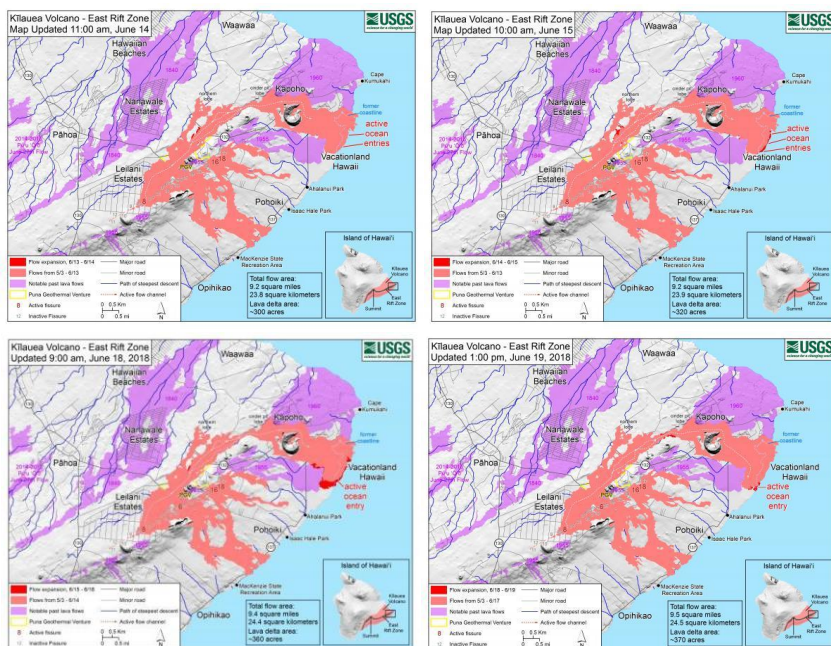


Figure 6. The change in lava displacement in lower Puna District June 14-19, 2018 (USGS 2018).

The first set of images in figure 6 shows the change in the lava's movement in the lower Puna District during the volcanic event between June 14 and June 19. The eruption started May 3, 2018 and continues to flow and displace residents subsequently before slowing down in August 2018. The lava flow starts at

a fissure located in the Leilani Estates neighborhood, southeast of Pāhoā. This map also includes notable lava flows from volcanic eruptions in the past from 1960, 1955, and 1840, shown in purple, while the light red represents the current lava flow and the darker red represents new lava flow in comparison to the previous map. The notable past lava flows have a trajectory path going northeast from Mount Kīlauea, and curves southeast at Kapoho, covering Vacationland Hawai'i as well as the Four Corners entry point to Pohoiki.

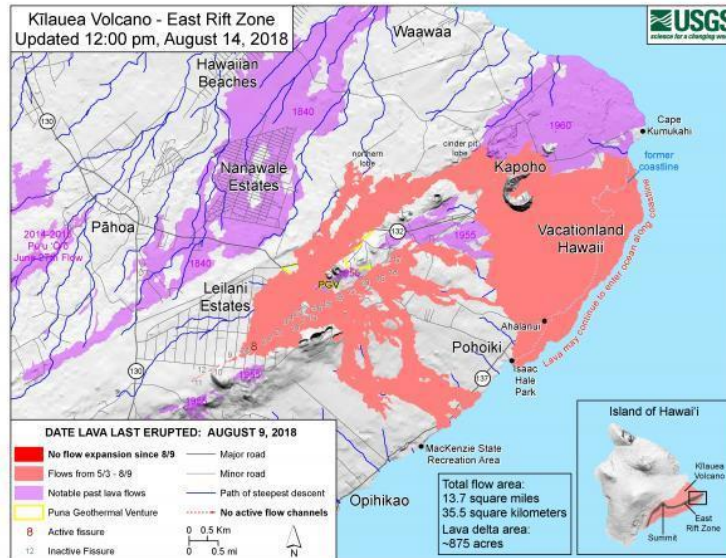


Figure 7. Final displacement of the Lava in low Puna District August 14, 2018 (USGS 2018).

Figure 7 shows the final displacement of lava after no new major lava movements. The curve of the lava flow made me wonder how Hawai'i County was able to tell the path of the lava flow would take, and which recreational areas were at the most risk. Looking further, the USGS predicted the direction of flow with the lava using topographical maps. Figure 8 below shows a topographical map of Puna that the county used to predict the areas of Puna that are the most in danger.

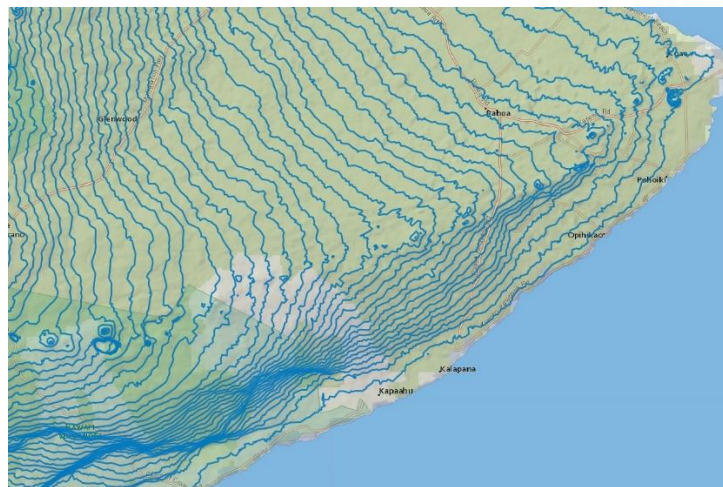


Figure 8. Topographical map of Puna District (Hawai'i Statewide GIS Program, 2020)

The blue lines on the map on Figure 8 show the steepness of the slopes in Puna; the lines that are farther apart show shallow slopes while the more knit together lines show steeper slopes. USGS then located the most active fissures in Puna and calculated the path of the lava based on the steepest slopes. Mount Kīlauea is located close to the edge of the lower left corner of Figure 8. With this in reference, geoscientists could predict that the southern part of the Hawai'i coast would be in the most danger of a volcanic eruption. The recreational areas in those spaces include Pohoiki's Isaac Hale Beach Park and Pualaa's Ahalanui hot ponds. From there, USGS can create a lava flow simulation as picture in Figure 9.

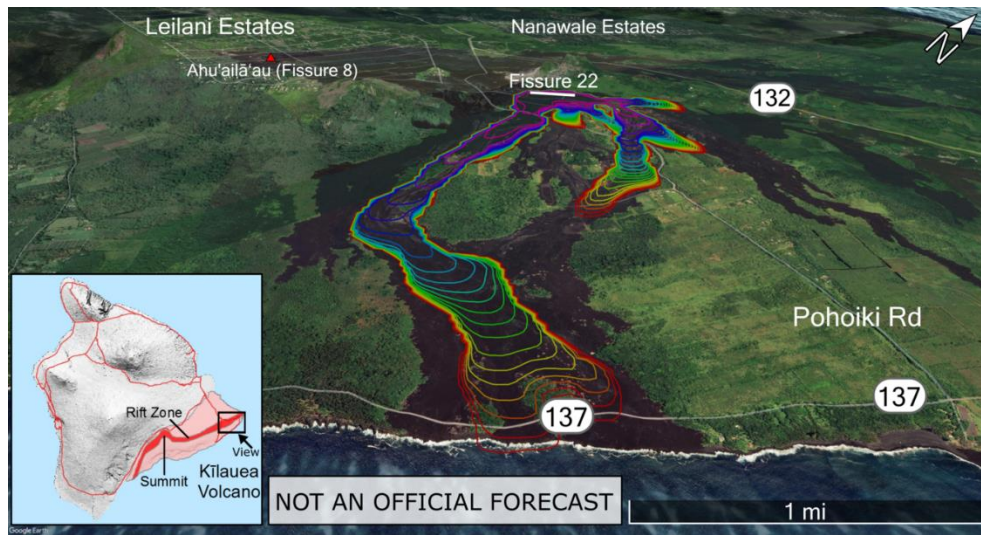


Figure 9. Simulation of the Lava Flow from Fissure 22 (USGS)

In Figure 9, USGS located Fissure 22 as a high-risk fissure and created a simulation of the lava flow to predict the area of damage from the eruption in 2018. The lines in this image show the predicted speed of the lava flow by hour-long increments. The prediction shows the inevitability that lava would destroy part of Highway 137; southern Puna as well as Leilani Estates and Pāhoa would lose access to Pohoiki and the rest of the southeast coast. Figure 9 shows the substantive lava path of the 2018 eruption, and the simulated lava flow map showed to be accurate.

Figure 10 shows the thickness of the lava after the eruption, which can help to understand Hawai'i County's decisions of which roads to restore immediately, and which roads need more time for restoration planning. This map was useful to me as it showed which roads lead to the recreational beaches and what parts of the new coastline are usable to the Puna residents. The dark green areas of the map show the thinnest parts of the lava cover, in which Hawai'i County could restore or rebuild roads immediately. The red and yellow on the map indicate the thickest parts of the lava cover. The thick lava layer covered Vacationland Hawai'i and fully engulfed the Ahalanui hot ponds and blocked car access to the Kumukahi Lighthouse. There are still people who live by the lighthouse, and they must hike through the thick hardened lava cover to buy food other necessities, and Hawai'i County is making plans

to create new access roads to the lighthouse in 2025 according to Smiley, a leading member in the Lower Puna Rising organization (Smiley, interview 2022).

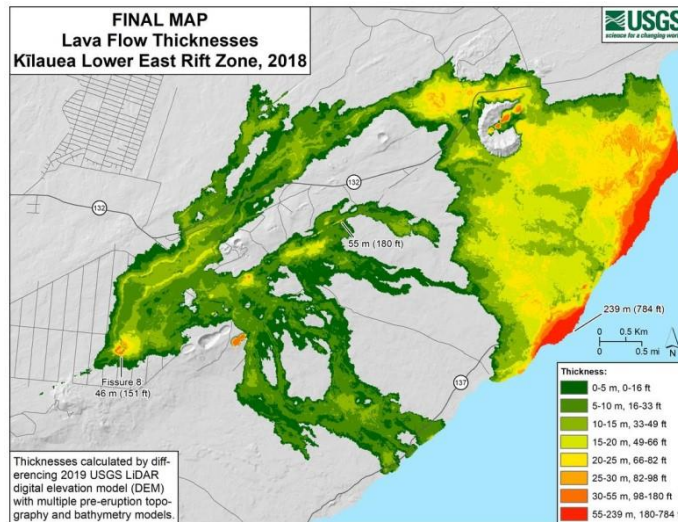
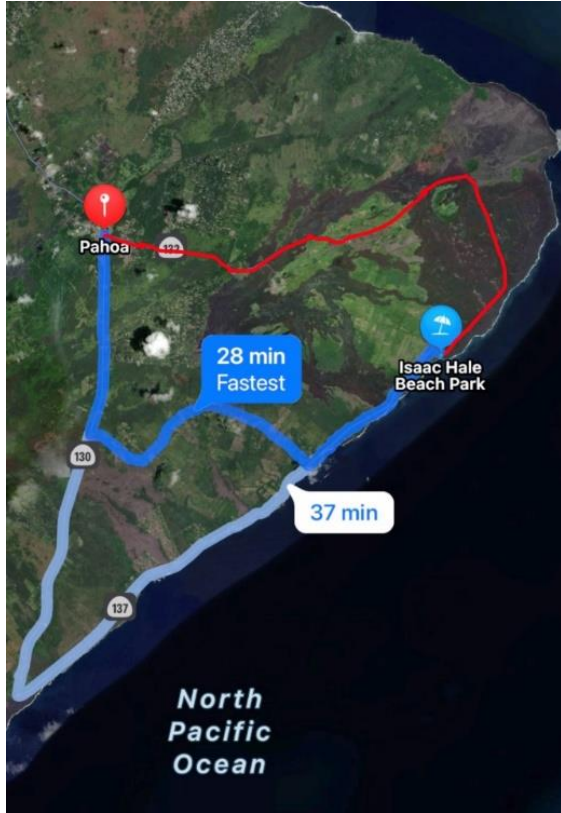


Figure 10. Thickness of the lava flow in Puna (USGS 2019).

The following maps are screenshots from Google and Apple Maps on my phone. While I was familiarizing myself with a simple satellite map of Puna, I learned that Google Maps had not updated their satellite images of the Puna District and still showed Puna prior to the eruption in 2018 whereas Apple Maps showed the lava cover. Thus, I was able to compile before and after images of the eruption solely through my phone. The locations that I chose to compare before and after pictures include Four Corners, Pohoiki, and Ahalanui. As of fall 2022, Google Maps updated their satellite images and no longer shows satellite images of lower Puna prior to the eruption.



Figure 11. Comparison of Four Corners before and after the eruption (Google & Apple 2022).



The images above show the before and after comparisons of the Four Corners in Kapoho, lower Puna. This was an intersection that Puna residents used to access beaches for water and cultural recreation. It was also the access for residents of Vacationland to get to the grocery stores and farmers markets. The C-shaped hill on the maps used to be the location of Green Lake, which was a four-hundred-year-old lake that fully evaporated during the 2018 Kīlauea eruption. Both tourists and residents visited this lake as it was once a popular swimming spot. It is also a sacred place. According to legends, it was one of the first places Pele visited when she first created Hawai'i (Peterkin, 2018).

After the eruption, residents of Kapoho and any nearby areas vacated and have not returned, thus the area in Figure 11, Kapoho, became labelled as an unincorporated part of Hawai'i. Residents such as Smiley and Amadeo have slowly moved back in hopes of rebuilding houses and to encourage Hawai'i County to create revitalization plans for Kapoho.

Figure 12 (above). Routes to Pohoiki (Apple 2022).



Figure 13. Isaac K. Hale Beach Park before and after the eruption (Google & Apple 2022).

Figure 12 shows a comparison of Pohoiki's Isaac Kepo'okalani Hale Beach Park. The image on the left shows the beach park before the eruption. There was a boat ramp that once fed out into the ocean; this was the most active boat ramp in Hawai'i County as Pohoiki was one of the most popular and productive fishing areas in the county. The image on the right shows the lava flow which destroyed areas of the

park and expanded the beach. It cut off the boat ramp from the ocean and made the area unsafe for surfing.

Prior to the eruption, the entrance to Pohoiki was accessible via three road entrances. After the 2018 Kīlauea eruption, the lava blocked two of the three roads leading into Isaac Hale Beach Park. Figure 13 on the left shows the different routes to Pohoiki. The route highlighted in red is the access point from Four Corners, not blocked by lava. The route highlighted in blue is a narrow and winding residential road that is dangerous for people driving with boats on trailers to go fishing and the route highlighted in light blue is a significantly longer but safer route to Pohoiki.



Figure 14. Before and after map comparison of Ahalanui (Google & Apple 2022).

Ahalanui was a large hot pond that Puna’s residents as well as visitors gathered to swim or to hold community events. A partial seawall protected the hot pond by blocking any tidal exchanges into the ocean inlet, creating a swimming area with minimal waves (Soehren, 2019). Volcanically heated to 90 degrees Fahrenheit, Ahalanui was abundant with fish, *hau* trees, and palm trees. The eruption did not immediately impact the pond; the lava avoided the warm spring for months following the start of the eruption until more fissures opened from the ground along the east rift zone and expanded Hawai’i island’s southeast coastline, burying Ahalanui deep in lava (Soehren, 2019).

After the Kīlauea eruption, about 60ft of lava covered Ahalanui, as shown in Figure 14, and hundreds of residents of Puna lost a recreation area that held so much meaning for them. When I asked Puna’s community about the loss of Ahalanui, many people showed me pictures of them with their friends and families at Ahalanui, the hot pond now just a fond memory for many.

Discussions between Puna’s residents and Hawai’i County on the restoration of Ahalanui commenced when a few residents rode on a helicopter over the lava cover and observed new hot pools forming on top of where Ahalanui once was. In an interview with Hawai’i County’s Parks and Recreation Department, the recreation director was not in favor of restoring Ahalanui as his claim was that Ahalanui was buried at least sixty feet underground and would be too expensive to dredge; however, this was not the project that the residents of Puna wished for Ahalanui. Amadeo, the founder of the Pāhoa Lava Museum, stated in his interview with me that the community did not want to dig up the old Ahalanui, but the community wants to access the land on top of where Ahalanui used to be as there

were new warm springs forming in that area (Amadeo, interview 2022). The guiding principle behind this is that for centuries, Hawaiians have built on top of lava after an eruption when the lava is safe to build on. Even with new lava covering the land, Ahalanui is still an area that holds significance to the residents as well as lineal descendants to whom the land culturally belongs.

The director of the Hawai'i County Recovery and Redevelopment Department stated that the county has not considered reopening the land on top of Ahalanui yet as the lava cover was thick and unpredictable. Looking back at my discussion about Figure 10 on lava field depths, the rough location of where Ahalanui used to exist is close to the middle of the huge lava cover, where the lava depths are in the yellow zone of deepness. Even though the land may look safe to create roads, Hawai'i County still needs to examine the land to ensure that it is safe to construct roads as the thickness of the lava cover may result in the lava cooling at a slower rate. As Amadeo found air pockets that collapsed under older lava in the Nānāwale Estates, opening a road to Ahalanui may reveal air pockets under lava that may collapse if the county does not spend more time to ensure the lava's safety. Similarly, Hawai'i County has not opened access from Four Corners to Pohoiki yet because the lava in Kapoho is also very thick and dangerous to construct on.



Figure 15. Beach access points on O'ahu (Hawai'i Statewide GIS Program).

Restoring public access to beaches and shorelines is critical in the Puna District, and this access is protected under a Hawai'i Supreme Court Ruling. In 2006, the Supreme Court ruled that the public has the right to access all of Hawai'i's beaches and shorelines if they are below the "upper reaches of the waves" (HRS §§ 115-4, 115-5, Revised 2010). Figure 15 shows beach access points in O'ahu, Hawai'i; the Hawai'i Statewide GIS Program does not have a map of Hawai'i County's beach access. In O'ahu, ordinances state that there must be public access to beaches every ¼ mile in urban areas and every ½ mile in rural areas (Revised Ordinances of Honolulu, Ch. 22, sec. 22-6.4). For Hawai'i Island, the public rights to the beaches are similar to O'ahu's rights— public beach access point must be 800-2,500ft apart

(Hawaii County Code 34-2, 34-4). Puna has even less public beach access points because parts of Puna’s coastline are a cliff rather than a beach like at the Mackenzie State Recreation Area. Other areas of Puna, due to the Kīlauea eruption, became uninhabited, and Hawai’i County has not yet made efforts to create access points to the new coastline. As stated in the previous paragraph, this is due to the lava field depths and the safety to start construction on the lava as prospective roads to the shoreline may contain air pockets and sinkholes. Additionally, although the eruption occurred in 2018, the lava-covered land may still be hazardous and active; the thickest lava forms closest to the new coastline, which may still be too hot to walk on. Thus, the County of Hawai’i requires more time to ensure the stability of the new coastline and evaluate the land before starting opening access to the community.

Windshield Surveys

During my time in the field, I conducted windshield surveys in locations that hold significance to Puna’s residents. In these locations, I observed accessibility issues, the environment conditions, and activities people were engaged in. The purpose of this survey was to understand access challenges for the residents of Puna to different recreational areas of the district and to gather data from my personal experience in those places. I chose to survey these areas as they were either fundamental areas that Revitalize Puna highlights or places that interviewees recommended me to observe. The table below shows all the locations that I conducted a windshield survey at.

Table 2: Timetable of Locations Visited

Date	Location
6/28	Pohoiki’s Isaac Kepo’okalani Hale Beach Park
6/29	Nānāwale Estates Lava Tree State Monument Leilani Estates
6/30	Pāhoa Lava Museum Pāhoa Community Facility
7/1	Rainbow Falls Hawaiian Acres Farmers Market
7/2	Onekahakaha Beach Park
7/3	Hawai’i Volcanoes National Park
7/5	Parks at Hawaiian Shores
7/8	Kahuwai
7/9	Four Corners

Isaac Kepo’okalani Hale Beach Park

The first location I conducted my windshield survey was at Pohoiki’s Isaac Kepo’okalani Hale Beach Park. This park was the primary location of interest as Revitalize Puna is leading ongoing projects to reshape Isaac Hale Beach Park using methods heavily reliant on community-based placemaking. After the Kīlauea

eruption in 2018, the lava blocked Pohoiki's boat ramp as well as expanded the shoreline, changing the landscape as well as activities on the beach.



Figure 16 (left). A road covered by lava, blocking the entrance to Isaac K. Hale Beach Park (Shridhar 2022).

The only road available enroute to Pohoiki Beach Park was a long, narrow, and winding residential road, full of blind turns and constant hills. The original routes to the beach park were through either the Four Corners intersection or on Highways 130 and 137. The lava from the 2018 eruption blocked all routes to the beach park except for Kamali'i Road, the residential road. Each blind turn greeted the research team with memorials of residents who died in car or pedestrian accidents on the road, signifying how dangerous Kamali'i Road was to drive through. Furthermore, Isaac Hale Beach Park was a beach used primarily for fishing. Those using the boat ramp pulled their boats to the park on large trailers. In my experience, driving with a trailer and a boat is a tumultuous experience. The Revitalize Puna plan is to open up the boat ramp for fishing to resume. However, fishing will be dangerous for Puna's residents, not because fishing is dangerous, but because the drive to Pohoiki will be dangerous for people driving with boats on Kamali'i Road.



Figure 17. Signage at the Pohoiki Beach Park

Upon arriving at the beach park, the entrance to the beach was abundant with signage reminding visitors to take care of the land. Littering is a huge problem in Hawai'i, especially in Puna, so residents encourage visitors and tourists to have higher morals when visiting sacred places such as Pohoiki. Figure 18 shows two examples of signs that the Pohoiki families created for visitors. The first sign says, "take care of your *opala* -Pohoiki *Ohana*," which reminds visitors to take care of their trash. The second sign

says “Mālama Pohoiki,” which translates to “take care of and preserve Pohoiki.” The handmade signs felt powerful and impactful to me . The creativity and vibrancy of the signs indicate that they were a community effort and serve as a reminder to visitors that we are visiting land that holds a strong significance to residents and lineal descendants to the area and that we should treat the beach with respect. My hope is that other visitors feel the same sentiment as I did when I read the signs.



Further into the beach park, there was another sign posted, warning visitors of the importance of the land past the sign. A low rock fence lightly discourages people from passing the sign; people could still cross the fence; however, it was heavily discouraged. The sign reads, “*Wahi Kapu*: sacred Hawaiian site. Powerful mana- do not desecrate”. This sign is very understandable as the families of Pohoiki need an area of the beach park where they can resume cultural recreation without the presence of visitors. The areas outside of the *Wahi Kapu* are large enough such that visitors should not find this sign offensive. It is an additional reminder about the strong connection that the *Kanaka Maoli* have with the land.

Figure 18 (left). A sign signifying a sacred area in Pohoiki (Shridhar 2022).



Figure 19. The Pohoiki boat ramp blocked by the lava, left. Former Pohoiki Bay breakwater, right (Shridhar 2022).

At the Pohoiki boat ramp, the ramp was still intact, but lava blocked the channel leading the ramp to the open ocean for 277ft. As the boat ramp no longer leads into the open ocean, it has become a warm pond, as shown in Figure 19. Visitors now use the boat ramp as a swimming area, sheltered from the

waves along the shore. Recent updates from Revitalize Puna reveal plans for the restoration of the boat ramp. Hawai'i County plans to dredge the lava blocking the ramp and create an opening in which boats can travel through to access the open ocean.

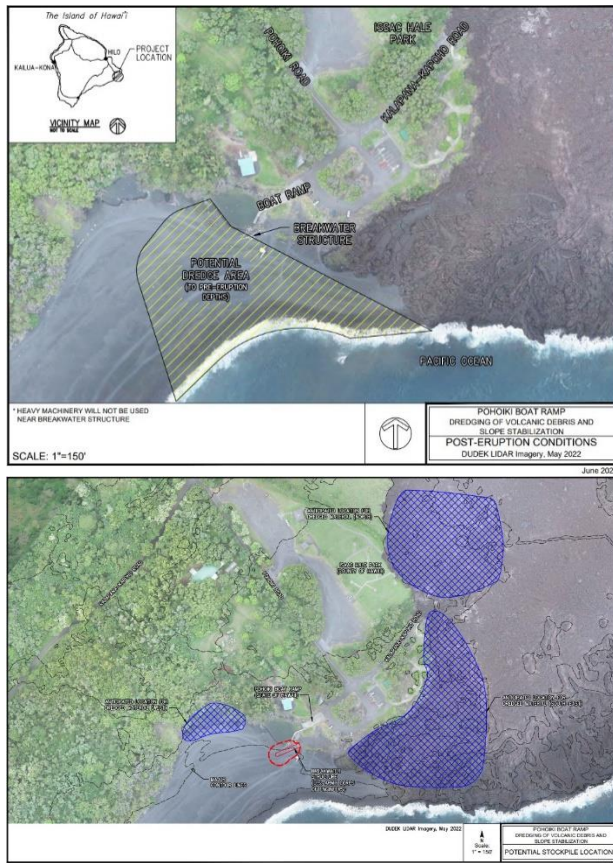


Figure 20. Plans to dredge the lava blocking the Pohoiki Boat Ramp (Hawai'i County 2022).

The images on the left show the proposed plans to dredge the lava covering the boat ramp that the Hawai'i County Recovery and Redevelopment Department proposed during the Revitalize Puna meeting in July 2022. In the top image, the area marked in the yellow stripes shows the area the Recovery and Redevelopment Department proposes to dredge. The second image shows where the dredged materials would be placed to minimize negative environmental impact when opening a path from the boat ramp.

In addition to significantly altered landscape following the 2018 Kīlauea eruption, there was also a huge change in the type of activities Puna residents could do in Pohoiki. According to Bob Agres and Drea, people used to gather at Isaac Hale Beach Park to camp throughout the summer and hold celebrations (Bob & Drea, interview 2022). Donna and her family also said that Pohoiki was where people gathered natural materials to create leis (Donna and Family, interview 2022). Results from the online surveys I sent to the Puna residents stated that other activities people did at Pohoiki before the eruption included cultural

rituals, surfing, swimming, cooking food for the community, and fishing. After the eruption, fewer residents visited the beach due to a combination of COVID-19 and the emotional impact of the eruption. Fewer people come to Pohoiki to surf during a high tide because 'a'ā lava, a sharp and jagged form of dry lava, primarily covers the beach, making it dangerous for surfers to drift back into shore or when they fall off their boards. Smiley, who used to be a regular surfer at Pohoiki, said since the lava blocked the Pohoiki entrance for Four Corners and the rocks at the beach are too dangerous, she decided to frequent a different beach called Kehena Beach by Pāhoa.

New warm ponds formed near the entrance to the boat ramp that some visitors swim in. When I mentioned this to Bob Agres and other longtime residents of Puna, they warned me that the warm ponds by Pohoiki were dangerous and full of bacteria. The people who soak in the warm ponds at Pohoiki are either newer Puna residents or visitors. As I wrapped up my visit to the Isaac Hale Beach Park, I saw a tourist van arrive at the beach, showing logos for KapohoKine Adventures and Zipline Through Paradise. The tourists were sightseeing at the new beach and soaking in the warm ponds. It is reasonable for tourists to visit places such as Isaac Hale Beach Park out of curiosity of the eruption,

however tourists visiting locations solely to view severe natural damages without education on the land and the community pave the way for a form of tourism called Doom Tourism (Lemelin et al, 2010).



The damage and lava cover from the volcanic eruption attracts tourists who are interested in viewing how the lava changed Isaac Hale Beach Park. According to Farrend, tourism activity in the beach park did increase following the eruption.

Figure 21. A ziplining tour bus makes a stop at Pohoiki Beach (Shridhar 2022).

Nānāwale Estates

The next location where I conducted a windshield survey was the Nānāwale Estates. The houses in Nānāwale are on large lots with abundant trees. I came to this location to visit a construction site for a charter school. In the eruption, the lava destroyed a school called the Kua O Ka Lā Public Charter School, which had been located near Ahalanui. The co-founder as well as development director of this school, Susie, and a construction worker, Amadeo were working together on construction plans to create a native forest education center in the Nānāwale Estates. In this location, I learned about the difficulties in building structures on top of lava cover and the threat of invasive plants on native Hawaiian O'hi'a trees due to human habitation.

One difficulty in building on cooled lava is the presence of lava bubbles. These air bubbles are formed when the lava cools. They can cave in under the pressure of weight, similar to a sinkhole. Amadeo was able to locate many lava bubbles and filled them up with rocks; however, there are still many more lava bubbles deeper underground that could still pose a danger to future construction in the Nānāwale Estates. These lava bubbles range in size from small cracks in the ground, to large holes that could swallow up a car or construction vehicle. To continue with the construction of the school, all the holes must be located and filled so that there are minimal collapses in the ground in the future.

Another issue that Amadeo and Susie face in the construction of the Kua O Ka Lā school is invasive trees that are hazardous to native plants as well as developments. Albizia trees, as stated by the Hawai'i Native Species Council, is native to Indonesia and Papa New Guinea and is among the fastest growing trees in the world, growing approximately 15ft per year (HISC, 2022). The top of the trees fans out and create a canopy layer that blocks sunlight from native plants, killing the native plants such as 'ōhi'a and allowing more Albizia to grow. Additionally, the Albizia trees have weak limbs, and the branches fall off

frequently. The Albizia branches are hazardous in human habitations as branches could fall on buildings, cars, roads, and people, causing severe damage and injuries.



My experience at the Nānāwale Estates taught me the difficulties of developing on top of lava. Even though Hawaiians have for centuries rebuilt their homes on top of lava after an eruption, there is a huge risk of lava bubbles forming holes in the ground underneath where people build. It helped me to understand why Hawai'i County is not yet opening areas of lower Puna for people to redevelop their property on or have road access to. Furthermore, invasive plants add more danger to land development as the branches of the invasive Albizia trees are prone to falling on top of structures.

Figure 22. Amadeo points out the differences between invasive and native trees (Laniga 2022).

Leilani Estates

Another windshield survey I conducted was through the Leilani Estates. The Leilani Estates was the location in which the eruption first occurred. Fissures from the ground formed in different areas of the neighborhood and erupted, destroying homes and displacing hundreds of people. We visited this area to interview three residents as well as to examine how the lava impacted road access and road conditions. Additionally, I wanted to know about the Leilani Estates residents' connections to land and the meaning of place and recreation to them.

As the lava was slow-moving, the residents of Leilani Estates were able to evacuate safely and provide help to those in need. In my interview with Carol, Kipu, and Susie, who lived in Leilani Estates during the eruption, they explained how they all lived next to multiple fissures and witnessed their neighbors lose their homes, and that the lava blocked all but one entrance to Leilani Estates, resulting in a tumultuous evacuation. Figure 23 shows the fissures and events that the residents reported to the Hawai'i County Department of Civil Defense. The red circles labelled with a volcano signify where a fissure was; there were at least thirteen fissures spotted within the residential area. The pink represents the land lost to lava and which homes the lava destroyed.



Figure 23. Map of the fissures found in Puna (Hawai'i County Department of Civil Defense 2018).



When we drove through the Leilani Estates, many roads were blocked by lava requiring us to take huge detours to different parts of the neighborhood. As we drove close to a fissure, we could still see smoke coming out of the ground, a clear indicator that it is unsafe to walk past blocked off areas. The sight of this made me curious how long it would take for the damaged parts of Leilani Estates to be inhabitable in future years.

Figure 24 (below). A view overlooking Fissure 8 (Shridhar 2022).

Figure 25 (left). Lava damage on a house close to Fissure 9 (Shridhar 2022).



Pāhoa Lava Zone Museum

Following the 2018 Kīlauea eruption, an earthquake severely damaged the Thomas A. Jaggar Museum located in the Hawai'i Volcanoes National Park. The Main Street Pāhoa Association recovered artifacts and interpretive signage from the museum. Shortly after, Pāhoa community volunteers created the Pāhoa Lava Zone Museum to hold all the artifacts that the Jaggar Museum once held (Pāhoa Lava Zone Museum).



Figure 26. Pāhoa Lava Zone Museum (Main Street Pāhoa).

The Pāhoa Lava Zone Museum, located on the main street of Pāhoa, is a non-profit, community-run museum. The museum is funded solely through donations and partnerships with organizations such as the Main Street Pāhoa Association. In the museum, there are old articles about eruptions before the 2018 Kīlauea eruption as well as examples of types of rocks formed from lava that are unique to Hawai'i. Examples of these are Pele's Hair and Pele's Teeth; these are rare rock formations that the lava creates under specific conditions. There are also comparison pictures of Puna

District before and after the 2018 eruption and maps of lava paths of major volcanic eruptions in the past.

The residents I interviewed strongly recommended that I visit the Pāhoa Lava Zone Museum to understand the stories of the community and to gain deeper insight into the impacts of volcanic eruptions. Amadeo, who was one of the founders of the Pāhoa Lava Zone Museum, has talked with tourist businesses to encourage them to stop at the Lava Zone Museum to learn about Puna District's history of volcanoes and community resilience. However, he found that these businesses tend to support Doom Tourism, bringing tourists to Four Corners to view the lava flows and damage. Amadeo lives in Four Corners in a house that was slightly melted by the lava and said that tourist businesses are more interested in stopping by his house to take pictures. Before COVID, to enhance tourists' understanding for the area, he considered moving artifacts from the lava museum into his home to create another educational destination for tourists to learn about Puna since they stop by his house anyway.

It is evident that the residents of Puna are open to tourists and visitors so long as their experiences are educational and tourist businesses do not exploit the Puna community's struggles against volcanic eruptions. Residents have communicated to tourist businesses that they want them to integrate education and a care ethic for the land into their tours. The museum is by donation, making it accessible for everyone, and residents are even willing to bring the museum or other educational aspects to locations in which tourists and visitors spend the most time. To my understanding, the tourist businesses have the final say in what they show the tourists, and it is different than what the residents of Puna wish visitors to experience.

Pāhoa Community Center

The Pāhoa Community Center is a large network of buildings located in downtown Pāhoa. Carol from the Leilani Estates recommended that I check out the community center as this was where she recreates and spends time with friends. The venue is large and consists of multiple buildings and large fields, including the aquatic center, recreational center, and outdoor sports fields.



Figure 27. Pāhoa Aquatic Center (Shridhar 2022).

One of the main buildings is the Pāhoa Aquatic Center. This pool was free for the public to use and was large enough to accommodate people of different ages and abilities. Access to the pool was straightforward as I was immediately greeted by lifeguards to check into the facility. While there are several private neighborhood community pools in Puna that residents of those areas can use for a fee, many residents from within and outside of Pāhoa come to the Pāhoa Aquatic Center to swim as there is no cost to use the amenity. During the summer hours, the aquatic center was open daily from 8am to midnight, which allows people who do not usually

have the time to swim during work hours to use the pool early in the morning or late at night.



Figure 28. Pāhoa Recreation Center (Shridhar 2022).

Another large building is the Pāhoa Recreation Center. This is a gym full of basketball and volleyball courts. In the outside area of the recreational center, there were cafeteria tables, picnic benches, and a playground. Summer youth camps and daycare take place primarily in this building. Outside of this building were the sports fields for baseball, soccer, football, and running events. People were able to freely use those fields to exercise when there were no events or competitions happening.

Rainbow Falls

Although it is not located in Puna, Rainbow Falls was another location of my windshield survey. I visited this site to study the signage that tells stories of that land that can inspire and educate visitors. Rainbow Falls is a short drive away from Hilo. The walk to Rainbow Falls leads the visitor to a lookout point 80 ft above the basin, where visitors can see the waterfall, a lava cave underneath the waterfall, and the turquoise basin where the water falls into. At the farthest lookout point, there is a large sign that tells the legend of the creation of Rainbow Falls.



Figure 29. Rainbow Falls (Shridhar 2022).

In this legend, the goddess Hina, also known as the mother of demi-god Maui, lived in the cave behind the falls. Above the waterfall is the Wailuku River, where a giant lizard named Mo'o Kuna lived; one day he threw a large rock into the river mouth downriver of Rainbow Falls. This blocked the flow of the river and filled up Hina's home. Hina called for Maui's help, and he destroyed the rock blocking the river flow and chased Mo'o Kuna upriver. At a waterfall upriver from Rainbow Falls, Maui asked Pele, the goddess of volcanoes and fire for help in defeating Mo'o Kuna, to which Pele poured lava into the water, boiling Mo'o Kuna out of the water for Maui to defeat. The location where Pele boiled Mo'o Kuna out of the water is called Boiling Pots for its appearance of boiling water due to the water's turbulence in the rain (Story from National Parks Service signage at Rainbow Falls & Shaka Guide).

The legend of the creation of Rainbow Falls and Boiling Pots was significant to my windshield survey observations. The interpretive signage illustrates how

Hawai'i County educates visitors about the stories connected to place, which can instill greater appreciation and care for the place. Besides sharing culture and history with visitors, the story shows that there is more to just a view of a waterfall and explains to the visitors why the waterfall is important to the residents and why visitors and residents alike must show respect to Rainbow Falls. Cities that rely on tourism, such as Hilo often experience vandalism, waste pollution, and decimation of important native plants and ecosystems. The signs at Rainbow Falls did not disrupt the aesthetic of the location and provided an educational experience for the visitors who read the story.



Figure 30. Signage at Waipi'o Valley Lookout Point (Shridhar 2022).

Two other examples of signage on Hawai'i Island are the signs in the Lava Tree State Monument and the Waipi'o Valley Lookout Point. At the Lava Tree State Monument, there were many signs throughout the state monument that taught the visitors about the plants that grew there as well as the science behind the formation of lava trees. My experience at the Lava Tree State Monument was very educational and I felt a stronger connection with the location, similar to Rainbow Falls. Additionally, the abundance of signage did not hinder my experience at the state monument as the signs did not block any of the monuments and were clear to

read. On the other hand, I had a dissimilar experience at the Waipi'o Valley Lookout. As the valley was breathtaking, the signage overlooking the valley telling the story of the valley's significance was difficult to read and it took extra effort in learning about why Waipi'o Valley was important to those who lived by the land or were lineal descendants of it. When I was finally able to understand the faded writing, the story behind Waipi'o Valley fascinated me, however, I do not believe that other visitors would have the patience to read the faded signs as I did. To ensure that visitors learn about different locations in Hawai'i, signs must be maintained so that independent tourists and visitors can learn about Hawai'i and grow to care for the land through the power of storytelling.

Hawaiian Acres Farmers Market

The Hawaiian Acres Farmers Market is a small park that can hold about ten farmers market stalls as well as local businesses. Despite the small size of the market, it was very lively and full of locals that bought food as a band played music in the background. There was no presence of tourists in this area as it is in the middle of a residential area and is far away from any urban areas; this farmers market is solely meant for the residents of Hawaiian Acres to buy their food.



Figure 31. Yumi Shridhar passing out flyers at the Hawaiian Acres Farmers Market (Laniga 2022).

This farmers market takes place in a space referred to as a "Pocket Park." By hosting a farmers' market that bring locals together, Hawaiian Acres combats food deserts and isolation. Hawaiian Acres is a sprawling, low density residential area. Grocery stores and shopping centers are far away from the neighborhood, and the Hawaiian Acres Community would rely on their vehicles to buy food. The creation of pocket parks helps a neighborhood benefit from and reclaim vacant lots or forgotten spaces (Blake 2005) and the farmers market served a purpose for the residents of Hawaiian Acres to have easier access to food. This pocket park, called the Hawaiian Acres Community Association, also serves to be a place where the Hawaiian Acres residents can gather as a community. On days that the farmers market is not open, this area serves as an accessible area where residents can host community events and gatherings to enhance their social capital.

Onekahakaha Beach Park

The Onekahakaha Beach Park is a twelve-minute drive east of Hilo. I visited this beach park at the invitation of Susie, the co-founder of the Kua O Ka Lā Public Charter School, to attend a *ho'ike*, or an event to share knowledge. When I arrived at the beach, I saw many events taking place at Onekahakaha Beach Park. Sports teams gathered to celebrate with their friends and family after a competition. There were also multiple birthday parties spread around the beach park. Additionally, families visited the beach to enjoy the protected swim areas and to spot sea turtles. The *ho'ike* took place in a grassy field

just before the beach called Lihikai. Uncle Keone's Place is another name for the location as Keone is a lineal descendant of Keaukaha, the Ahupua'a in which Onekahakaha Beach Park is located.



Figure 32. Swimming area and gathering area of Onekahakaha Beach Park (Shridhar 2022).

The *ho'ike* was for a summer camp called Kūkulu Kumuhana, which is a week-long camp that educates Hawaiian youth and adults in Hawaiian culture and language using culture-based learning techniques in the environment. The activities in this summer camp include traditional crafts, hula, harvesting local food, and caring for the land. At the end of the camp, the students displayed what they learned to the participants of the *ho'ike* to teach more people about the culture of Hawai'i. Keone, who is a lineal descendant of Keaukaha, had an abundance of knowledge of the land and resources, passed onto him through generations. He shares this knowledge with the students who enroll in the summer camp in hopes that the Hawaiian culture he learned passes onto new generations. The lessons that the summer camp teaches the students revolve heavily on outdoor recreation and place. The songs that the students sang and danced to told stories of the different areas of Hawai'i Island and about how each part of the island is unique from one another and how they each have different contributions to Hawaiian culture. Most importantly, this form of place-based learning teaches the students sustainability as they learn not to rely so much on mass produced foods and imported goods. All of the food the students prepared for the *ho'ike* was locally sourced from Keaukaha. Ultimately, my experience at Onekahakaha Beach Park and the *ho'ike* showed the crucial significance outdoor recreation has on the revitalization and maintenance of Hawaiian culture and practices.

Hawaiian Volcanoes National Park

One of the most popular destinations on the Island of Hawai'i is the Hawai'i Volcanoes National Park. The national park welcomes about 1.3 million visitors a year and brings \$117 million in revenue to local communities (Ferracane 2022). The park is well-maintained and respected by visitors. My goal for this national park visit was to learn what compelled visitors to respect and take care of the land, and how other recreational spaces can implement such features to encourage the same behavior in various parts of Hawai'i. Some characteristics that I found that compelled visitors to take care of the land were the abundance of signage, fences for safety, natural greenspaces covering unwalkable areas, and piles of rocks that signify pathways.



Figure 33. Mount Kilauea Crater (Shridhar 2022).

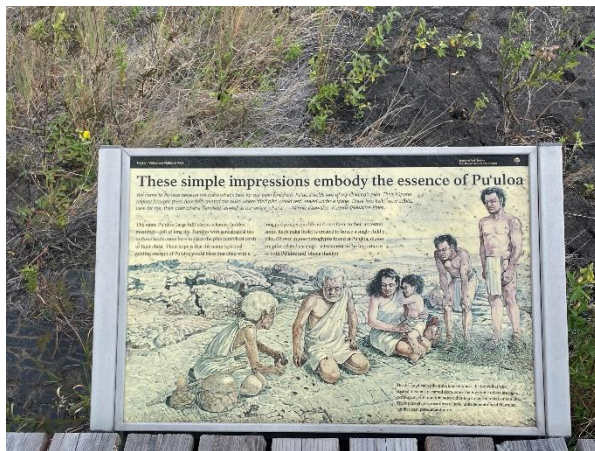


Figure 34. Signage at the Petroglyphs site (Shridhar 2022)

Similar to Rainbow Falls, the Hawaiian Volcanoes National Park is full of signs that teach visitors about nature, the environment, and legends about the volcanoes. Long trails to Mount Kilauea and the Holei Sea Arch provided signs about the types of vegetation that grows in the area as well as how Native Hawaiians used to use them. At the petroglyphs, there is a sign that tells of the story about why the Native Hawaiians in the past created the petroglyphs and how families with genealogical ties to the land come to this location to place the umbilical cords of their children in hopes to bless their children with long lives and prosperity (Hawai'i

Volcanoes National Park). This sign informs visitors about the traditional rituals that still occur today and reminds them that they are visiting traditional and sacred grounds, inspiring visitors to respect the petroglyphs. The bright yellow sign at the national park informs visitors about the dangers of the park. At the Thurston Lava Tube, there are yellow warning signs about the dangers of walking through lava tubes that the visitors must read before entering the lava tube; any disrespect to the land from the visitors would result in injuries to people and severe damages to the land.

Another feature of the Hawaiian Volcanoes National Park that encourages positive visitor behavior is fencing preventing the visitors from going off trails. These fences prevent visitors from straying off of the designated pathways and potentially falling off a cliff. Visitors from the mainland are known to still walk past the fences and barriers, decimating the environment and disturbing ecosystems; however, I did not see any visitors at the Hawaiian Volcanoes National Park disregard the fences during my visit. Additionally, the fences provide protection to native plants and allow them to grow undisturbed. These

natural spaces provide a stronger barrier that prevents visitors from walking into dangerous areas and maintains the park's natural integrity.

Another method that the Hawaiian Volcanoes National Park uses to encourage visitors to care for the land and act responsibly is implementing rock piles to guide visitors to safe areas and pathways. Similar to the natural greenery creating paths through negative spaces, the piles of rocks help to preserve the natural integrity of the national park. In the area of the Hawaiian Volcanoes National Park where the petroglyphs are located, there is a long path between the parking area and the petroglyphs. There are no paved paths, walkways filled with gravel, or fences that signify designated walkways. The only objects preventing the visitors from getting lost in the lava desert are the piles of rocks. Once the visitors reach one pile of rocks, the next pile of rocks are visible for the visitors to walk towards. The goal of reaching each pile of rocks is a strong indicator for those visiting that the Hawaiian Volcanoes National Park is dangerous and that they must walk through each location with caution.

Ultimately, the different features implemented in Hawaiian Volcanoes National Park help visitors to foster care and adopt safer behavior. This is the type of behavior that Puna's residents wish visitors to have towards the sacred public spaces of the Puna district, especially Pohoiki's Isaac Kepo'okalani Beach Park. The beach park also has signage that asks visitors to not litter and to take care of the land, while another sign highlights the location of where the sacred lands are. Piles of rocks and coconut sprouts create paths for visitors to walk around safely. Yet, Puna residents informed me in our interviews that Pohoiki faced incidences of violence, littering, and trespassing, disrespecting the Pohoiki Families. The beaches of Pohoiki as well as the recreational spaces of Puna are just as culturally important as the Hawaiian Volcanoes National Park; both the national park and Puna have lineal descendants who come to the land to practice their cultural traditions and rituals, and both places have culturally significant legends that revolve around the formation of those spaces. Like how the visitors of the Hawaiian Volcanoes National Park are educated about the environment and reminded of the dangers of the park if they disregard the rules, visitors of the Puna district must also be educated about the history of the land and the dangers of wandering astray of safe area to create a relationship of care with Puna.

Parks in Hawaiian Shores

In interviews with Puna resident Margaret, I learned that even though some recreational spaces are close by, such as a neighborhood park, people may be drawn to and feel more welcome at parks that are farther away. An example of this are the parks located in the Hawaiian Beaches community. In the middle of the community, there is a private park with a playground, sheltered picnic areas, and a pool. Even though this park is close to many of the residents of Hawaiian Beaches, more people visit the Kahakai as it is a public space that requires no membership.



Figure 35. Hawaiian Shores Community Association (Shridhar 2022).

The private park in Hawai'i Beaches is called the Hawaiian Shores Community Association, located close to the center of the community. It is a large park half the size of a Puna residential block. In the park is a large field for community gathering and field games, a large pool with designated hours for water aerobics and adults only swimming sessions. The park is protected by a fence as people must check in with the caretakers of the park to use the facility. The park requires membership to access the park and due to COVID, members may only bring up to five non-members into the park. On the community association website, I could not find where people can

become members and use the park, which means that to gain membership to the park, people must be members, or residents, of Hawaiian Beaches. This means that people from outside of the community are not able to use this park unless they come with members and are therefore unwelcome to the park. The public beach of Hawaiian Shores is Kahakai Park; no membership is needed for the park as it welcomes residents and non-residents alike.



Figure 36. Kahakai Beach Park (Shridhar 2022).

Kahakai Park is located on the coast of Hawaiian Beaches. It is an open field along a cliff by the water. People come to this park to go fishing by hiking down the cliff and climbing through the rocks going farther into the water. The park itself is just a grassy field with a portable toilet as its only amenity. This park is managed and maintained by Hawai'i County's Parks and Recreation Department, indicating that Kahakai Park has many uses for the community. On a travel website, Sandee, visitors can participate or view volleyball games and search for spinner dolphins, monk seals and humpback whales off the coast during certain times of the year

(Sandee, 2022). Community members gather at this park for picnics and celebrations. Additionally, this is a park in which people from outside of Hawaiian Beaches feel the most welcome as there are no memberships requirements restricting them from entering the area. Although there are few amenities at Kahakai Park, people are drawn to this space as it provides an open recreation area of many uses and a safe area to observe marine wildlife.

Kahuwai

The village of Kahuwai is a cultural as well as educational resource used by the Kamehameha Schools as they take their students to the site to learn about Hawaiian history and traditions through hands-on activities on the still-intact remains of the old Hawaiian settlement (Kamehameha Schools, 2004, p.15).



Prior to my visit to Kahuwai, I believed that everyone has the right to access to land and that Hawai'i's coastline should be open and accessible for all. Kahuwai is a prime example of the significance of leaving larger areas of land for Native Hawaiians to preserve and continue their culture and heritage. The site is owned by the Kamehameha Schools, which is a private school that aims to pass on Hawaiian traditions, culture, and language to their students and is maintained by Keone Kalawe, a lineal descendant of the Kahuwai Ahupua'a who collaborates with the school and whose grandparents were born and buried in Kahuwai. My goal for this location was to understand the importance of private recreational spaces such as Kahuwai and how it contributes to the preservation of Hawaiian culture.

Figure 37. Sea Arches at Kahuwai (Shridhar 2022).

Kahuwai allows Native Hawaiians to experience their culture from before mainlanders inhabited and colonized Hawai'i in the early 1800's. The undisturbed coastline contains more than 200 acres of Native Hawaiian settlements, vegetation, and canoe sheds. It was once a farming and fishing village that was densely populated. The translation of the village is "water tender", which indicates that the ancient villagers of Kahuwai had a strong connection to the water. Neighboring villages had trails that led to Kahuwai as those villages did not have access to the beach. Life in Kahuwai was abundant until 1823 when William Ellis, a British missionary and author, visited the island of Hawai'i to document his experiences. Following his visit, Ellis took record of the number of taxpaying houses in Kahuwai, which showed Kahuwai's decreasing numbers of households. In 1863, the records showed that seventeen households paid taxes from Kahuwai and only two households paid taxes in 1882. In the early 1990's, the number of taxpaying households in Kahuwai flatlined to zero, indicating the possible end of permanent residency in Kahuwai. In 2001, the Kamehameha Schools gained ownership to Kahuwai and adopted Kahuwai into their 'Āina Ulu land legacy education program to provide their students with direct experiences of Hawai'i pre-contact. (Kamehameha Schools, 2004).

Typically, people without Hawaiian descent are not allowed to come to the property as crowds of visitors may permanently alter Kahuwai. I was able to gain access to Kahuwai with the permission of Heather, one of the caretakers of Kahuwai. We did not venture deep into the village ruins as our only intention of visiting the land was to swim in the tidepools, but along the way to the site, Heather taught us about the history of Kahuwai and sent me a link to a reading about the history of the place to make sure that I learned about the Kahuwai before visiting. Heather made sure that my visit to Kahuwai was completely educational so that I could understand the significance of the land and treat it with respect.

Private recreational spaces like Kahuwai are important to implement in Hawai'i as they are a way for Hawaiians to reconnect to their culture and undo some of the damage of colonization Hawaiians have lost connection to their heritage such as hula and language, making it essential that they have land that is undisturbed by visitors so that they practice their Native Hawaiian traditions. The article from the Kamehameha Schools that Heather sent me, called "Exploring Kahuwai: Teaching from a Hawaiian Perspectives," explained that when outsiders move into areas and interact with the Hawaiian communities, the number of Hawaiians start to decrease as they are pushed out. This is particularly the case along the coastlines. Outdoor recreation is crucial for Hawaiian culture, and if there is no land designated for only the Kamehameha Schools or Hawaiians that are lineal descendants to the land, they may lose more of their culture (Kamehameha Schools, 2004, p.19).

Four Corners

One of our last places I studied during my windshield surveys was Four Corners, located in Kapoho. This location was once a community that had easy access to Pohoiki's Isaac Hale Beach Park and Ahalanui prior to the volcanic eruption. However, a few months after the initial eruption of Kīlauea, lava blocked the Four Corners intersection to Pohoiki, inundating most of Kapoho's houses with lava along the way. I came to this location to interview Amadeo and Smiley on different days; on the first day at the Four Corners, I went to Amadeo's house to interview him and on the second visit to Four Corners, I visited Smiley's lot, in which she planned to build houses on. For this location, I observed Smiley's plot of land where she is working to rebuild a community at the corner of the destroyed intersection.



Figure 38. Amadeo's house "Miracle House" at Four Corners (Shridhar 2022).

The Four Corners is significant to the Puna community because this is the route, they used to access the southeast coastline of the island. Thus, many of the interviewees expressed that they want Hawai'i County to prioritize repairing the roads intersecting the Four Corners to give the community access to the water again. The process to rebuild the roads will be slow since it requires land surveying and acquiring funds before the work can commence. In the meantime, grassroots organizations such as

Lower Puna Rising are working to gather seeds and soil to regrow native plants in the lava-covered areas to encourage revitalization at the Four Corners as well as the rest of Kapoho and Vacationland.

Smiley inherited the land by the Four Corners intersection from another resident as she took care of the land for years. She told me about the importance of Four Corners and Green Lake and why it meant so much to her to inherit a large plot there. She started her family by Four Corners and even gave birth to one of her children in Green Lake. The community prior to the volcanic eruption was close knit and would share fruits and other materials with each other. Then the eruption destroyed Kapoho, evacuating the land devastated the residents. During my visit to Smiley, she told us that she invites her old neighbors to visit the plot to walk around what used to be their neighborhood, reminiscing where their homes used to stand.



The figure on the left shows the plot of land that Smiley inherited. At the moment, the property looks like piles of rock, however, Smiley received a grant to flatten out roads and plots to create a neighborhood. As of the summer, Smiley moved shipping containers to the location where she plans to build her house and to another location where she plans to build a house for her eldest son's family. Then she plans to gather materials and more funding to build her and her son's houses. Close to the entrance of her land, Smiley wanted to flatten out a space for community gathering and events. Prior to the eruption, there were community spaces in which she sold homegrown fruits to her neighbors, and she wants to rebuild that community opportunity and to invite her old neighbors back to the plot to rebuild their homes.

Figure 39. Smiley's plot of land at Four Corners (Shridhar 2022).

Another project that she is working on is to reintroduce greenery to her plot of land. The mountain above the former Green Lake is still intact and abundant with foliage. Smiley ventures into the mountain to collect monkey pods from the trees in the forest. The trees that create the pods are native to Hawai'i and produce hundreds of monkey pods. Only a few pods can grow in the forest as the mature trees block sunlight for the pods, so Smiley collects bags of the pods to grow in better light. After the pods grow small tree saplings, she will give or sell these trees to residents of Puna to help them re-vegetate lava cover.

Summary of Findings

After visiting and studying each of the locations for my windshield survey, I gained a stronger understanding of how sacred the land is to the residents of Puna as well as how Puna's community can create a balance between addressing community needs and tourism. Some findings using the windshield

survey research method were that education on place is important for both residents and visitors for the preservation of culture and the protection of land, and that it is important for some places to be exclusive for lineal descendants or residents so that sacred rituals could remain undisturbed and so that community members do not run out of resources in farmers' markets or harvesting areas.

The biggest takeaway from my windshield surveys was that education was heavily valued in each location, to both preserve history and educate visitors on how to approach the land with respect. In terms of educating people on place to preserve culture and history, there were many programs in recreational spaces that were dedicated to teaching Hawaiian residents and youth on Hawaiian culture through dance, harvesting plants, and cooking. A grass field in the Onekahakaha Beach Park holds summer camps for Hawaiian youth to learn about their cultures and hosts a *ho'ike* at the end of the camp where the youth share their culture through hula, stories, songs, crafts, and food with guest attending their *ho'ike*. Taking this cultural learning space to a bigger scale, the Kamehameha Schools own Kahuwai and use it as an educational resource for their students to learn about their culture in the remains of an ancient Hawaiian village. For visitors, education is seen through signage in recreational spaces made by the National Park Service and Hawai'i County, telling visitors of stories of the creation of the place as well as what types of flora and fauna that exist in the areas. Places such as Rainbow Falls, Hawaiian Volcanoes National Park, and the Lava Tree National Monument had signage telling stories of how the places came into formation and provided visual goals for the visitors to find, ultimately creating a connection between the visitor and place. For example, the sign at the Rainbow Falls lookout told the visitors that the Boiling Pots just before the waterfall is a place that Pele touched and that the large rock near the waterfall is Mo'o, the lizard that Maui slayed.

Another significant finding in my windshield survey was that even though tourism is a huge industry in Hawai'i, it is important to create spaces that do not prioritize visitor needs for recreation, but rather needs of cultural recreation and community recreation. The Kamehameha School is the largest private school in Hawai'i that preserves and passed down Hawaiian culture and traditions to Hawaiian youth, and the privatization of Kahuwai allows them to effectively do so. Additionally, the areas in Pohoiki's Isaac Hale Beach Park and the Volcano National Park's petroglyphs have areas that discourage visitors to enter certain areas as they are areas for sacred rituals and ceremonies. Onekahakaha Beach Park as a field that is reserved for the summer camps and their *ho'ike* while the rest of the beach park hosts non-cultural gatherings. If these spaces were open to visitors as well, Hawaiians would not be able to practice their traditions, in more crowded and hindered spaces, and consequently lose some of their culture and identity. In terms of community spaces, I learned that it is crucial to prioritize the needs of residents over visitors in some parks. The recreational space at Hawaiian Acres is a pocket park which hosts the Hawaiian Acres Farmers' Market. The dedication of this space for the farmers market is critical for the Hawaiian Acres community as the community is in a food desert, with no grocery stores nearby. If the residents do not grow gardens or own cars, they must solely rely on the farmers' market for their food. Another space in which it is important to address the needs of the resident over visitors is Isaac Hale Beach Park. The beach park has the only boat ramp in Puna, which made it a significant destination for the fishing industry in Puna before the volcanic eruption. In the efforts towards revitalizing Pohoiki, if the needs of visitors are prioritized over the needs of the fishers, then Puna's fishermen would have to travel up to Hilo to go fishing, which makes gathering fish for Puna's markets more tumultuous.

Interviews

The interviews were immensely helpful and critical to my project; the interview participants were incredibly open to share their recreation experiences of the Puna District before and after the eruption. The Puna residents considered my interviews with them to be “talk story,” defined by Jaimie Steele in their article on research methodologies in neocolonial Hawai’i as a “casual exchange of narrative with a sense of mutuality and has been advanced as a storytelling performance style as well as a tool for learning” (Steele, 2012, p.39)). Steele also states that talk story creates relationships among people as they can learn things about themselves while listening to perspectives of others (Steele, 2012, p.44). In my research project, the talk story with the interview participants ranged from a short conversation to enraged rants, and even to emotional conversations— the community members were generous with their time and shared stories about their experiences with recreation and the eruption. I learned that talk story became a coping mechanism for many to process the events and impacts of the Kīlauea eruption as well as the changes proposed to Isaac Hale Beach Park by Revitalize Puna. The interview participants had such diverse experiences of Puna; some residents were newer arrivals to Puna while others were born in Puna, some were directly impacted by the volcanic eruption while others were not impacted at all. Table 1 shows the main themes that were identified from the interview data.

Table 3. Themes and main ideas from the community interviews.

Question	Theme
<p><u>PUBLIC SPACE THEMES:</u> What is the closest public park or public space near your home? What brings you to these places?</p>	<ul style="list-style-type: none"> • Safety and easy access to recreational spaces. • Parks help preserve Hawaiian heritage. • Recreational spaces help residents form communities. • Sacred lands in/near parks
<p><u>TOURISM THEMES:</u> How has tourism affected your experience in recreational spaces?</p>	<ul style="list-style-type: none"> • Exploitation of the land for the sake of tourism. • Regenerative tourism creates responsible relationships between locals and visitors.
<p><u>RECREATION THEMES:</u> What is something that you value in Puna’s public spaces?</p>	<ul style="list-style-type: none"> • The land is temporary and will always change.
<p><u>REVITALIZE PUNA THEMES:</u> What should Hawai’i County keep in mind amid the ongoing Revitalize Puna projects?</p>	<ul style="list-style-type: none"> • Be respectful to the families in Pohoiki. • Fishermen need to be able to return to the water. • Open more recreational spaces along the Lower Puna Coast.

PUBLIC SPACE THEMES | Safety and easy access to recreational spaces.

When choosing parks to visit for recreational activities, the interview participants stated that they do not just go to the parks closest to their homes. Each park has different characteristics, environments and types of visitors. Some participants prefer to travel further to a public space in which they feel the safest and most welcome, rather than visiting a park close to their homes where they do not feel like they

belong. In this interview theme, I observed that some of the residents that I interviewed judged locations on safety and easy access. I learned that the conditions of the natural environment, safety at the parks, and access after the Kilauea eruption were main motivators.

“[The parks are] close enough that you think you could walk if you want to or you could ride your bike, but it’s not because of the highway issues but the topography of the land.” -Drea

When I asked the interviewees about what brings them to public spaces, they informed me that the environment and topography of some parks were dangerous, and they felt more comfortable searching for a more level recreational area to minimize any injuries. Margaret, an elementary school teacher, stated that “the big island is mostly uneven lava it’s hard for a lot of people to just walk.” Additionally, travel routes make it challenging to drive to some parks. The only available road to Pohoiki is a narrow road and when I asked Donna about traveling to Pohoiki, she said that “it would be dangerous. That road, the steepness of it.” Donna’s granddaughter Diamond added in that the road to Pohoiki cannot be changed to make it safer for visitors as “we have lots of Kapu, which is old Hawaiian lands and graves, which are very old. A lot of us don’t want to expand the road because it’ll cover them up.”

In terms of safety, the interviewees felt like the parks that they live closest to are not the safest for their children to play in. The closest park to Drea’s house is Shipman Park, however, Drea tries not to bring her children to that location during peak crowd hours. “Shipman Park isn’t always great because if there are too many people,” says Drea, “it doesn’t feel as clean.” The park is not well maintained, so it did not feel as welcoming to Drea, and some of the people who spend time at Shipman Park engage in activities that she prefers to avoid. “There’s many people over there smoking, and I don’t want to be around that.” Thus, she looks for parks that are family friendly, like school playgrounds. “There’s a lot of overlap between public parks and school parks. The community is using spaces that are made available by the public schools,” she said.

Other interviewees are physically not able to go to certain parks because of the 2018 Kilauea eruption. Amadeo and his family used to frequently visit Ahalanui and Pohoiki to enjoy the beaches and hot ponds as they lived close to the water and had quick access to the coastline. “Ahalanui and Pohoiki used to be five minutes from here. That was our only ocean access. We either now have to go to Hilo or all the way down to Uncle Robert’s, then all the way to Pohoiki. What used to take five minutes takes about an hour to an hour and a half. Basically, we don’t go to the beach anymore.” His daughter added in that they are able to hike through the rocks to enter Isaac Hale Beach Park, but they would be too exhausted after the hike to enjoy the beach.

PUBLIC SPACE THEMES | Parks help preserve Hawaiian heritage.

According to the interview participants, another reason people are drawn to certain outdoor recreational areas is that those spaces allow them to connect with their Hawaiian heritage. Keali’i and Kalehua moved to Puna in search for community for their daughter to learn about her heritage: “Part of our intentionality was to be able to provide all those community relationships for our daughter that allow her to connect to her Hawaiian identity.” Communities that help Hawaiians learn about their culture include school programs, summer camps, community gatherings, and work parties.

In my interview with Donna, she said that learning about Hawaiian culture and stories is important to her, and she used to go down to Kalapana for cultural recreation before it was lost in a volcanic eruption in 1983. “We lost a lot of that on Kalapana, because a lot of our learning happened down there.” After the lava took away Kalapana, Donna encouraged her family to find new ways to learn about Hawaiian history and culture so that they do not forget about stories about Kalapana and other old places in the future. Donna’s grandchildren participate in school programs that teach them Hawaiian language, hula, care for the land, and stories. She states that these “cultural programs retrieve old villages, learning about and cleaning the places” and these recreational spaces help Hawaiian youth experience first-hand how their ancestors gathered food and created material culture. Her eldest granddaughter added that she participates in a program that takes her and her class to Pohoiki. She said, “I am in a Hawaiian Program that’s teaching us about our coastline. Lately we’ve been going down to Pohoiki learning about how people made things back then.”

PUBLIC SPACE THEMES | Recreational spaces help residents form communities.

A third reason why the interview participants chose to spend time at parks and other public spaces that are farther away than the closest park to their homes is due to the communities that form or come together in different locations. Community members build bonds when they participate in community engagement to help improve the parks. Additionally, park communities form when people of similar nationalities come together at specific parks as they feel more welcome in a group.

When asked about what brings them to a park, Keali'i said that “It’s the community engagements that gets us to the parks”. In the park that Keali'i’s family visits the most, there is a community center in the middle of the park that hosts craft day, potlucks, meetings to improve the park, and youth programs and daycare. In these social community events, the people who come to the park get to know each other and spend time at the park together.

According to Farrend, who is part of a close-knit Micronesian community, the Micronesian community in Hawai'i spend time together at the parks, mainly in Hilo, with their families to play baseball games and have barbeques together. Farrend met his Marshallese friends in college, and continued spending time with them at parks after they left college. The only parks that he is comfortable visiting are the parks that other Marshallese people visit. “The only park we know about would be any park in Hilo . . . also mainly because this is where all the Marshallese go. We just go to the same parks.” He also stated that the Marshallese community faces discrimination from locals that sometimes leads to violence or the police officers coming, so he said that he feels the safest at parks when he comes with other Marshallese people. Other people from Micronesia face the same discrimination and are friends with Farrend and his Marshallese friends and are welcome to join the Marshallese people in the parks. Farrend said that “the parks are more like a territory. It used to be just the Marshallese, but we let our other friends know that we play there.” The parks that Farrend and his community visit became a safe place for Micronesian immigrants to gather without feeling out of place and build a strong community where they can support and protect one another.

PUBLIC SPACE THEMES | Sacred lands in/near parks

There are numerous recreational spaces that interviewees said that they felt the most welcome at. However, they also recognized that there are spaces at the parks and beaches that are not meant for them. *Wahi Kapu*, or sacred lands, are parts of a park in which the lineal descendants to the area participate in sacred rituals and ceremonies. These areas are labeled with signs and low rock-pile fences that discourage visitors from entering. The residents that I interviewed, even if they have lived in Puna for a long time, understand that they should not enter the area beyond the posted signs, there are other recreational spaces that they can visit instead.

Kendra explained the division of the land and how Hawaiians know where they can fish and hunt. “There’s a system called the Ahupua’a. That’s what you’re responsible for and you don’t fish from there if you are not in your home Ahupua’a,” she said. Kalehua grew up in the Puna District and she added that even though she was born into the island, she only has full access to one Ahupua’a: “as Kanaka Maoli and as Hawaiians, I will respect that there are a ton of places on the island that I want to visit that are parks, but that’s not my 'āina, I have no business there, and I am just as much of a tourist there.” Kalehua also stated that she as well as other Kanaka Maoli do not discourage or stop people from visiting the area however, they just want people to learn about their space and respect it and understand how sacred the land is to Hawaiians. Margaret, a newer resident of Puna, added in that Hawaiians never made her feel unwelcome in their sacred places, but that she knew to keep her distance from such places after educating herself on the areas’ histories and importance. “As somebody that is not Hawaiian, I felt a little uneasy at first, nobody made me feel that way, but it’s just stories that you hear.”

TOURISM THEMES | Exploitation of the land for the sake of tourism.

When I asked the interview participants about their thoughts on tourism in Puna, I received a mixed response. Some of the interviewees felt as though the tourists took advantage of their struggles following the eruption while others did not mind tourists visiting. Even though tourists provide Hawai'i a significant amount of revenue and tourism created thousands of jobs for residents, tourists who are not educated about Hawaiian culture or uninterested in learning about the land they are visiting on pose a threat to residents as well as the environment. The threats that tourists pose on communities and ecosystems include noise, pollution, increased crime rates, and vandalism on built and natural structures (Gursoy, 2010). Participants expressed fear that tourists will be careless while visiting their community and damage their homes, community connections, and sacred places. Additional concerns that locals have about tourism are congestion and overcrowding of recreational areas (Nejati, Mohamed, & Omar, 2014).

“We have a lot of aloha to share, but it has to come with mutual respect.” -Kalehua

Last chance tourism, or doom tourism, is a popular reason why tourists want to visit the Puna District. In this form of tourism, tourists are more interested in visiting landmarks that were damaged or are destined to disappear in the future due to natural events. Examples of this include icebergs melting, Seychelles Islands sinking due to the sea level rising, Mount Kilimanjaro’s melting glaciers, and Puna’s most recent lava damages. Amadeo lives in a house in Kapoho that was the only house to remain standing after the eruption, earning it the title of the “miracle House”. When I asked Amadeo about his

experience with tourists, he stated that “tour buses were unloading their visitors and having them walk down the driveway to look at the miracle house. I had been fighting tour buses to come to Pahoā for three years” to visit the Lava Museum. These tour buses have no interest in learning about the place, but rather, to see the damage that the lava had on Puna. Donna, a long-time resident of Puna, noticed that “Pohoiki became more of a tourist attraction after the flow because it was more for fishermen before the eruption.” Drea’s message to the last chance tourists is: “You’re going and looking where the lava is, right? Please remember that this was only a few years ago; it’s still a big deal. It’s not to gawk at, so finding ways to respectfully go and see because they want to learn.”

“Traditionally, tourism in Hawai’i has been responsible for environmental degradation.” -Amadeo

In terms of respecting Puna’s land, the interviewees observed that even though there are respectful tourists that give back to the communities, the tourists that are uneducated on the land show an immense amount of disrespect and threat to communities and ecosystems. “I’m not gonna say all of them,” said Keali’i, “but many just don’t have respect for the land.” In context, he visited the Hawaiian Volcanoes National Park, which comprises very sacred land, and found a group of tourists smoking and throwing their cigarettes on the ground. Drea agrees with Keali’i statement as she stated that the “tourists are coming up and not paying attention to signs and are doing dangerous stuff.” Drea then brought up that idea that when we visit other places, we are tourists as well, and how we may become those tourists who don’t know the significance of the land yet and how we might unknowingly disrupt the community. “When we go somewhere and we’re tourists, what can we bring to a space?” This thought leads to an idea that Amadeo is very enthusiastic about implementing into the Puna District: regenerative tourism.

***TOURISM THEMES** | Regenerative tourism creates responsible relationships between locals and visitors.*

Regenerative tourism is a form of tourism that allows the visitors to positively impact Hawai’i in a direct way. This type of tourism is different from sustainable tourism, or ecotourism. The goal of ecotourism is to minimize the environmental impact in a location and leave the land as undisturbed as possible. Ecotourism, even though it helps support local businesses and slows down the process of climate change in Hawai’i, does not help areas like Puna recover from disasters such as the 2018 Kīlauea eruption. The type of ecotourism that allows tourists to give back to the land they visit or use their money to directly help is regenerative tourism.

“There’s definitely a way to do it, I’d like to see it start in Puna, so that it can be a model for the Kona side.” -Kalehua

This is something that the Puna residents are hopeful for and shared their ideas with me during their interviews. Drea told me, “I want there to be spaces that are used, but I want it to come from the community working with the people who are interested in helping the community.” She as well as other Puna residents wish to see more involvement with visitors in supporting the local businesses. Amadeo’s idea would have tourists help by planting more trees with the money they spent for tourist activities. His plan is, “we sell trees to the tourists; they pay for them to be planted.” If the number of trees planted by the tourists equal the number of tourists that visit Puna annually, the Puna residents could create more

livable conditions on lava-covered areas and build more homes and communities. Kalehua added that “Hawaiian Airlines developed a video that now plays in flight so that all visitors learn about what it means to be a part of the island, its natural environment, and the people. Its setting the ground rules for engagement.” These informational videos could also inform the visitors of regenerative tourism and how they could implement it into their vacations.

The ideas that the interviewees told me related to the work that Bob Agres is currently working towards in the Cultural Resistance Area Capacity Area of Revitalize Puna. In Bob’s C-RCA Roadmap to cultural preservation, he plans for zoom as well as in-person training for hotels, businesses, community members, and community youth to teach them about the significance on different places and how to be mindful of such places so that they can educate visitors on how to visit recreational spaces in a respectful manner. Bob is also planning for more training for tour operators and guides on how they can give more educational tours for the visitors that would help benefit the community more. Additionally, Bob is working to create workshops for the residents of Puna on “Protecting Our Places” through demos, practices, mo’olelo, food, and talk stories as a community-based way for residents to share with each other their history and stories so that residents could further understand the importance of protecting the land.

RECREATION THEMES | The land is temporary and will always change.

In my interviews, the long-time residents of Puna told me that even though they hold strong connections to Hawai’i’s coastline, culturally and recreationally, they are used to the lava taking away lands that mean the most to them. They believe that anyone who lives in Puna must keep in mind that all the land on Hawai’i is temporary and that all the parks and beaches today will disappear sometime in the future, and that they must be prepared for the fast-changing coastline.

“This is Pele’s land, and we are just squatters.” -Carol

Carol’s quote is a reminder that Hawai’i is the home to Pele, the goddess of fire and volcanoes, and she can reshape the land as she pleases as the land belongs to her, and not us. If Pele chooses to destroy Carol’s home, she is okay with it, as Pele has allowed her to live in her home for so long. Donna added, “a lot of places that I grew up in are no longer there, so we can’t share that with our children.” Chris and Holly are also Puna residents who are okay with Kīlauea deciding where they live. “Kīlauea is part of the land. Accept it, don’t put all your money inside of overpriced real estate.”

“You don’t think of a place as being temporary, you take a place for granted, but places can be gone, they can go away. It makes you present and grateful for what is there.” -Kendra

In terms of Pohoiki’s Isaac Kepo’okalani Beach Park, participants I spoke with are expecting the beach to disappear in the lava in the next Kīlauea eruption and want to make sure that Hawai’i County is not spending too much money on the Pohoiki boat ramp as lava may cover it again in the future. Donna, who moved to Puna in the 1980’s, said that Isaac Hale Beach Park was not originally the community’s park. The beach park that brought more people together was Kaimū. “Kaimū in Kalapana had been taken by the previous eruption—that was a real big family recreational area. When that got taken, Pohoiki became the major route for families.” When the volcanic eruption of 1983 took away Kaimū,

Puna's residents changed with the lava and found a new space to grow their community. Donna added, "Before Kaimū, there was also another that got taken, Harry K. Beach Park." It is a pattern that the Hawaiians have experienced since before colonization. Hawai'i is built on centuries worth of lava, and for years, Pele has controlled which locations, beaches, and parks she wants the residents to have access to. "You pave over the lava and put a new road," Amadeo said, "the Hawaiians have been doing this for thousands of years. The lava comes though, you get out of the way. And then when it's done, you go back, and you build on top of it." These statements from the interviewees are similar to the perspectives of the former planning director of the County of Hawai'i, Michael Yee, who believes that the county should not assume permanence on the land and invest primarily on infrastructure development.

REVITALIZA PUNA THEMES | Be respectful to the families in Pohoiki.

I asked participants what they want Hawai'i County and Revitalize Puna to keep in mind as they propose new plans to restore Pohoiki. One subject that they felt was most important for Hawai'i County to prioritize was the families of Pohoiki. In Pohoiki, multi-generational families live in and around Isaac Hale Beach Park. They use the beach for cultural recreation, and participants are worried that Revitalize Puna will compromise the families of Pohoiki's rights to the land and their traditional practices.

"Be aware that those were family properties and family homes." -Donna

When I asked this question to Drea and Donna during my interviews with them, they both made it known to me how much the families of Pohoiki are crucial and important to the rest of Puna District. Donna said, "Don't touch the house. That is a family's home right there." There is a house next to Pohoiki's boat ramp, Uncle Hale's house, which survived damage from volcanic eruptions for generations, making it a sacred and symbolic house at Pohoiki. People visit to spend time with and learn from the family of the house. Donna said that "Uncle Hale's house is like a safe place. We could go there, and you could learn. If you were hungry, he would feed you." Drea included that the children who live in the Hale house are friends with her own children. "Pohoiki is not a playground; it's a community," she said.

"The biggest is just making aware that the old-time families, to them, that the land was sacred." -Donna

Additionally, respecting the families that live on Pohoiki is also crucial to cultural preservation in recreational spaces. The Pohoiki families are primarily the ones who use the Wahi Pana on Isaac Hale Beach Park to continue cultural traditions. Disregarding the concerns of the Pohoiki families and disrespecting their beaches would take away the places that they hold a strong connection to and sets the families up for risking losing their history and traditions. The families of Pohoiki created signs to remind visitors to respect Isaac Hale Beach Park as well as warn people to stay out of the Wahi Pana. Similarly, in the Hawaiian Volcanoes National Park, there are areas that are designated only for the families that are lineal descendants of the land that the national park resides on. In Image 34, the signage explains to the visitors why they are not allowed to veer off of the trails as the areas outside of the designated walking areas are where families gather to place the umbilical cords of their children. Both the families that are lineal descendants to the national park and Pohoiki have strong family

traditions that require the space on their respective lands to continue their traditions and ensure that their culture is passed down to their children without the hindrance of visitors .

REVITALIZA PUNA THEMES | Fishermen need to be able to return to the water.

Another subject that participants want Hawai'i County to keep in mind as Revitalize Puna progresses is, in addition to the needs of the Pohoiki families, prioritizing the needs of those who used to fish from Pohoiki's boat ramp. Dredging the boat ramp is already a goal that the Hawai'i County Department of Recovery and Redevelopment proposed during an Activate Puna meeting in the summer, and the residents I interviewed showed support towards Hawai'i County prioritizing the fishermen as fishing was one of the biggest industries in Puna before the eruption. Amadeo emphasized that fishing in Puna was "a huge economic driver for the community. That boat ramp was the second most productive ramp in the State of Hawai'i for commercial fishing."

A concern raised in the interviews about Revitalize Puna was related to potential parking conflicts between visitors and fishers. Farrend pointed out that after the eruption, more tourists came to the beach park, and predicted that after the boat ramp opens for the fishermen, tourists would still come to Pohoiki to look at the lava damage. Amadeo said that people come to Pohoiki to swim and was concerned that the people who come to Pohoiki to swim would take parking away from the fishermen. "Pohoiki was never a swimming area. It was more for fishing access." The county should ensure that once fishing access is restored, there is adequate parking and staging areas for the fishing community.

REVITALIZA PUNA THEMES | Open more recreational spaces along the Lower Puna Coast.

Participants showed excitement towards the revitalization of Pohoiki; however, they are concerned about the increasing number of people visiting the beach park following the restoration actions from Revitalize Puna. While the eruption expanded the park's beach, there is limited space for visitors. The interviewees would prefer that the limited space go to the fishermen. To reduce conflicts between visitors and fishermen, Thus, the interviewees would like to see more beach access points created along the southwest coast of Hawai'i . This would provide a greater variety of options that are easier and safer for people to access.

"Pohoiki cannot handle the amount of people that are going to come. The county needs to talk about recreational corridors. Not one or two spots; the county deserves multiple points of access to the ocean." -Amadeo

In terms of the crowds in Pohoiki, participants were worried that new and expanded numbers of visitors to Pohoiki could push fishermen out of the beach park. They understand and respect that Pohoiki's beach park is primarily meant for fishing access, and as Amadeo said, it is the second most productive boat ramp in the State of Hawai'i. Kendra said, "each park served different purposes." It is important to look at what beach access and activities were lost to the lava flow and where new access areas or restored areas could be developed along the Lower Puna coastline. Not every access point or beach park needs to or should provide all of the same amenities. Different places can accommodate different needs. Some beaches could be primarily meant for fishing, another beach for swimming, et cetera. This would help to lessen the impact and congestion at any one point, like Pohoiki. Thinking about the

possible influx of visitors to Pohoiki after the dredging of the ramp, Margaret stated, “I definitely do not want a mini O’ahu down there.”

Recreational resiliency is another reason the participants want to have more access points along the Lower Puna coast. The participants recognize that the land is temporary and know that Isaac Hale Beach Park will disappear in the future. If a future volcanic eruption takes away Pohoiki’s beach park, they want to be able to fall back to another beach park that is still in the Puna district so that they do not need to travel to Hilo for water recreation. Furthermore, some of the residents are concerned about the amount of money put into the boat ramp as it could be damaged by future lava flows. “We don’t want to spend those millions and millions of dollars and dredge it, and then a year later, it all comes back,” says Donna. Amadeo added that Pohoiki, after the 2018 eruption, is now at a higher risk of lava damage. “Pohoiki is not the steepest descent for any new eruption, and they’re putting all their money into a place which is the most likely to be inundated in a new eruption.”

Summary of Findings

The interviews allowed me to gain an in-depth understanding of my interviewees’ perspectives on recreation in Puna as well as their values on Pohoiki regarding the progress of Revitalize Puna. The insight from each interview provided me with a few findings to help me create a list of recommendations for the County of Hawai’i to consider. These findings include the importance of educating visitors, lineal descendants co-managing projects affecting their land, and addressing barriers in communication between the residents and government.

One finding from my interviews is that the residents of Puna are open to visitors, as long as we are willing to learn about their home. Amadeo as well as John volunteer at the Pāhoa Lava Zone Museum and encourage all visitors and tour operators to visit the museum to learn about Puna’s volcanic history. When Amadeo learned that the visitors were more interested in visiting the lava sites, Amadeo moved some of the museum items into his own home to create a second Lava Zone Museum that is closer to the Four Corners lava site. The work that Amadeo put into moving the museum pieces closer to where visitors prefer to visit showed that he was dedicated to creating an educational experience for those who visit Puna. Additionally, in my interview with Drea, she stated that she did not want her and her community’s struggles to be exploited by visitors who had no interest in learning about Puna and how to support the community.

Another finding from my interviews is that the interviewees collectively emphasized the imperative for the lineal descendants to co-manage projects affecting their land. In my interviews, I asked the participants what they would want Hawai’i County to keep in mind as Revitalize Puna progresses, to which all of the interviewees stated that they want Hawai’i County to think about the needs of the Pohoiki families as they are revitalizing the beach park. Donna stated that the beach was the backyard to many of the Pohoiki families, and that any changes to the beach would greatly affect the families. Currently Revitalize Puna does work alongside the Pohoiki families to decide how to revitalize Pohoiki, however, the interviewees believe that the families should make the final decisions on what goes into their homes.

Lastly, I learned from my interviews that there is a block in communication between residents and the government. Miscommunications throughout the progress of Revitalize Puna, I observed, was a

significant drive for the distrust some residents had with Hawai'i County. An example of this is the recovery of Ahalanui. In my interview with Amadeo, he told me how he was able to fly over the lava cover to examine the new coastline, and that there were hot pools forming on top of Ahalanui's location, to which he said that the county should be able to provide access to those new hot pools. Subsequently, the director of the Parks and Recreation Department stated that he had already talked with Amadeo and that access to Ahalanui is not possible as it was buried 60 ft underground. Both of these arguments for and against the recovery of Ahalanui were under different approaches on how to create access to the hot ponds, which made both sides frustrated with one another. After my meeting with the director of the Parks and Recreation Department, Amadeo had a meeting with them to clear up their misunderstanding such that both parties are under the same understanding of ideas to reopen Ahalanui.

6. Recommendations

Hawai'i County's Revitalize Puna program implemented momentous changes to Puna District as a whole, however, working with a district as large and diverse as Puna, it is expected that the needs of some people were left out of the general plan. Equity and access to recreational spaces were needs that were brought up in my research, as participants felt like the families of Pohoiki would lose their Wahi Pana if their concerns were overshadowed by the need of visitors and felt like the county was not opening access to the roads that they need to use. The following recommendations were developed based on the empirical evidence from the research findings described in this report.

1. Create more systems and methods to encourage tourist morality and integrity.
 - a. Signage
 - b. Regenerative tourism
2. Transparency and better communication between the government and community.
3. Provide for co-management of Pohoiki and other such areas by lineal descendants of the Ahupua'a.

[Create more systems and methods to encourage tourist morality and integrity.](#)

Tourism is one of the largest businesses in Hawai'i as it increases job opportunities for the residents; however, tourism in Hawai'i still has a negative connotation as some tourists disrespect sacred Hawaiian land and exploit the struggles of Hawaiian communities by investing in Last-Chance or Doom Tourism that profits from lava damage. All participants in my interviews expressed a desire to see more respect from tourists. One step Hawaii has towards encouraging tourists to enter Hawai'i in a more respectful manner is to address their tourists as "visitors" as that term drives the tourists to relate visiting Hawai'i to visiting a house, in which they are more compelled to approach the islands in a more respectful way. Furthermore, the interviewees stated that they are interested in seeing programs that allow visitors to give back to the land as well as ways that visitors can learn stories about the land to foster an understanding that the land is sacred and must be treated with respect.

Revitalize Puna's Cultural Resilience Capacity Area (C-RCA) currently works towards cultural resilience in Puna, especially Pohoiki to remind Puna's residents as well as visitors about the significance of the land and the people who live in Puna. Bob Agres, who leads the C-RCA, stated that their plans to improve the educational experiences of visitors include leading workshops for tour operators and tour guides on how to present Puna to the visitors that educates the visitors on the connections between respect to the land

and cultural preservation. Additionally, the C-RCA hosts community-led training for residents and youth in which community members talk story and share their traditions with one another to allow for more opportunities to preserve different Hawaiian cultures and inspire the residents of Puna to teach visitors how to be respectful in recreational spaces. In my interview with Amadeo, he added onto the plans from the C-RCA and suggested that Hawai'i County implements opportunities for regenerative tourism. With regenerative tourism, the money that the visitors spend in local businesses could be directed to plant trees to restore the lava-damaged landscape. This idea goes together with the C-RCA's plans of education programs for visitors and locals; after people learn about what the land means to the Hawaiians and how the 2018 Kīlauea eruption impacted it, they would then learn how they can help the community with how they spend their money.

Another way for visitors to learn about the land and develop a responsible relationship with it is through more signage in recreational areas and frequent maintenance of them. As the residents of Puna want visitors to have an educational experience in their recreational spaces, signs near native plants and viewpoints help independent tourists learn about the land and develop connections to it. Visitors tend to take care of the land when visiting the Hawaiian Volcanoes National Park as they stop at each sign to learn about the native plants and environment. Signage does not have to be professionally made to have an impact. In Pohoiki's Isaac Hale Beach Park, the community painted signs that reminded visitors to pick up their trash on the beach and to take care of their land. Pāhoa has similar artwork, but at a larger scale, as the Paint Pāhoa Town program displays freshly painted buildings and local artwork and murals for the visitors to view and learn more about the stories of the Pāhoa community. Paint Pāhoa town shows visitors how much the residents of Pāhoa care about their home and inspire those visiting to do the same. Ultimately, the examples from the Hawaiian Volcanoes National Park and Paint Pāhoa Town show the power of signage and maintaining signs and structures to tell a message to visitors that people live on the land that they are visiting and that the land needs to be treated with respect.

[Transparency and better communication between the government and the community.](#)

In Revitalize Puna's efforts for the restoration of Lower Puna, residents of Puna expressed frustration and sadness about the loss of the Ahalanui hot ponds. Many residents felt that Ahalanui was more of a community gathering area than Isaac Hale Beach Park and were upset that Hawai'i County chose to create access to the Pohoiki beach park rather than Ahalanui. On the other hand, Hawai'i County chose to create access to Pohoiki over Ahalanui because Isaac Hale Beach Park was the least damaged and opening the Pohoiki boat ramp is important for supporting the fishing economy. Additionally, when I brought up the community's thoughts on Ahalanui to a representative of the Parks and Recreation department, he stated that he cannot bring back access to Ahalanui as it is more than fifty feet underground; however, the Puna community wants access to the new land that covers Ahalanui, not for Hawai'i County to dredge it.

To avoid miscommunications and to gain the full support of the residents throughout the Revitalize Puna process, more communication between the government and the community should occur. An example of this is to have more frequent meetings to answer questions and for the county to explain their plans. The community should also have access to the meeting minutes and documents from the Activate Puna meetings shortly after the meetings so that they can stay up to date on what the county

proposes to change to their district. This would also allow residents to still feel included and involved if they miss a meeting.

Another common topic in the interviews was that people in Puna do not feel that their issues and needs are accurately represented or address by Hawai'i County in the same way as Hilo's. Hilo is more urban where homes, services, and government buildings are in close proximity to each other. Puna is rural, destinations are farther to reach. Puna and Hilo have a completely distinct set of issues and need separate methods for problem-solving, especially in terms of recreation. One of the interview participants, Amadeo, stated that using the same problem-solving methods for both Puna and Hilo are harmful to those in Puna as the ideologies from the urban Hilo are implemented into the rural Puna; a "one size fits all" method of problem-solving does not work with two districts that are so different from one another.

An example of Amadeo's concern is reflected in comments made by a representative of Hawai'i County's Department of Parks and Recreation. The representative told me that if there is a shortage of chlorine to clean public pools in Hawai'i County, pools in Puna would be closed down as there are significantly fewer people in Puna and the pools in Hilo have more use. This is a utilitarian approach that does not take into consideration the reality of Puna's context. If pools in Puna are closed, the residents of Puna would not have any access to water recreation as the lava from the 2018 eruption prevents ocean water access to the residents, whereas if pools in Hilo are closed, the residents are able to go to the beach to swim. In this decision-making scenario, representation from Puna's residents is necessary to let the County know why the pools in Puna should not close.

A solution to this is that there could be the creation of a task force in Hawai'i County that specializes in rural needs and resources so that the county has a team that is familiar with Puna's strengths and weaknesses. This would help Hawai'i County make improvements and advancements to eastern Hawai'i Island and ensure that Puna is not marginalized in the process. This rural team could consist of primarily residents of Puna who understand their district's needs and who would negotiate with other departments of Hawai'i County to ensure that Puna's needs are not overshadowed by Hilo's needs and utilitarian approaches to problem-solving.

[Provide for co-management of Pohoiki and other such areas by lineal descendants of the Ahupua'a.](#)

Interviewees expressed hope that Hawai'i County's restoration plans for Isaac Hale Beach Park are made in close consultation with Pohoiki families. Even though many of Hawai'i's beaches are public domain and accessible for everyone, land ownership traces back to the 1850's in which Land Commission and King Kamehameha awarded the *kanaka maoli*, or the native Hawaiians, title to the parcels of land that they had physically owned, cultivated, or improved (Cooper & Daws, 1990). The families of Pohoiki have lived there for generations, and some Pohoiki residents are lineal descendants of Pohoiki or adjacent Ahupua'as. For example, the red house that is next to the boat ramp, according to Drea, is a multi-generational house that avoided damage from many of Kilauea's eruptions. The family living in that house is friends with many of Puna's residents and is known for their hospitality and care for the community and the land. These families have the most in depth understanding and familiarity of the land and hold strong connections and values to the Isaac Kepo'okalani Beach Park. Thus, with the

Revitalize Puna projects underway, it is crucial for Hawai'i County to address concerns or needs of the Pohoiki families and residents as well as allow the people of Pohoiki to have more leading role in Revitalize Puna.

Revitalize Puna's Cultural Resilience Capacity Area (C-RCA) is currently in contact with the families in Pohoiki and is working with the family to restore the beach, however, the other residents of Puna wish to see more representation of the Pohoiki families in Revitalize Puna. The Pohoiki families could help the C-CRA in cultural education and inform tourist businesses what they want the visitors to learn.

7. Conclusion

In my research project, my goal was to understand how a community's connection and understanding to land helps them to make community decisions on how to shape an equitable and accessible recreational space as well as how a community that has strong connections to their land wishes to shape tourism. During my time in Puna and through my interviewees with residents, I learned how they have unique connections to the land and want to share it with visitors. I also learned about what they want to see in the restoration of Pohoiki's Isaac Kepo'okalani Hale Beach Park. Ultimately, the participants of my research showed me how they visualize an equitable recreational space addressing all the needs of visitors, residents, and Kanaka Maoli using community-based placemaking and access. Below are the research questions that I created at the beginning of my project:

- **Primary Question:** What are some practices that communities can do to ensure the balance of community-driven placemaking and tourism?
- How can public spaces be designed to serve both the needs of tourists and residents?
- How will the implementation of sustainable recreational tourism and beach access incorporate equitable access for local communities?

To ensure an equitable relationship between community-driven placemaking and tourism, it is critical to implement opportunities of education about the land and culture to both the residents and visitors to foster a sense of care for the land. This can be done through signage and resident-led tourist programs from the C-RCA. Placing signs near viewpoints, native plants, and points of interest help visitors gain a connection to the land as they learn about the significance that the viewpoint or native plants brings to the community and surrounding ecosystems and tells the visitors stories and legends of the formations of different areas. The Hawaiian Volcanoes National Park is abundant with these signs, and they educate visitors and instill a sense of understand and respect for the land. Another example is Rainbow Falls, where the sign at the lookout tells the story of Maui fighting a lizard; the visitors look out at the rocks to try to find the "remains" of the lizard and the location where Pele poured lava into the river to push the lizard out of his hiding spot. In addition to signage, resident-led programs or resident-overlooked programs are influential to balancing community-driven placemaking and tourism. The residents of Puna do not want tourist businesses to exploit their struggles following the recent Kīlauea eruption and worked to fund a community-run museum in Pāhoā to educate visitors on the eruption instead. The founder of the Pāhoā Lava Zone Museum talks with tourist businesses to convince them to stop by the museum as it is a location that many residents wish visitors to stop by. For visitors participate in Last Chance Tourism (LCT), or Doom Tourism, the residents still want them to have an educational

experience at the lava sites and want to implement more signage so that visitors who wish to see the lava damages in person can learn about the significance of the locations and develop care for the land. This would in turn encourage visitors to care for the land and cultivate respectful attitudes towards Wahi Pana and Kanaka Maoli traditions.

In order for public spaces to be designed to serve both the needs of visitors and residents, I learned that it is important to identify the original use and inhabitants of the land, put efforts towards the equity of that original use before addressing the needs of visitors. As Hawai'i is a top tourist destination for the mainland United States, it is important to carve out space for Hawaiians to practice their own cultural recreation and heritage. Even though tourism is a huge industry in Hawai'i that generates a significant job opportunities for Hawaiian residents, fishing is just as important of an industry and needs prioritization in the restoration of Pohoiki. Fishing provides food for the families in Puna, and according to Amadeo, is a leading driver in Puna District's economy. After the 2018 eruption of Kīlauea, lava blocked the Pohoiki boat ramp, preventing the fishermen ocean access in that area. In the progression of Revitalize Puna, even though residents are excited to regain access to the Lower Puna shoreline and to share the shore with visitors, the residents wanted to first make sure that their fishermen have priority at the beach park. Additionally, as the Pohoiki boat ramp will open in the near future for fishermen to use again, access for the fishermen to the boat ramp is critical to Puna's economy. With Isaac Hale Beach Park's small parking lot, there are limited parking spaces for the fishermen, who would not be able to fish if the parking spots are occupied by visitors. Thus, Puna needs more access to the beach along the new shoreline as soon as it is deemed safe to construct on the lava so that Isaac Hale Beach Park has enough space for the fishermen and lineal descendants.

Lastly, to answer my third research question, I learned that ecotourism does not directly help the residents of Puna. The residents wish to see a different type of tourism implemented into their community: regenerative tourism. Residents of Puna stated that ecotourism does not help their community because even though it encourages visitors to minimize their carbon footprints and to support local businesses, they are not helping the community recover from the lava damage. What they would like to is if visitors helping the community to replant trees so that they can rebuild forests, vegetation, and later houses on the lava cover. Amadeo said that he plans to make a business in which the money that the visitors spend directly buys seeds to plant trees. An area that the residents of Puna are passionate about restoring is the Four Corners intersection by Green Lake as it once provided multiple access points to the coastline. The residents wish to gradually restore land along this location to rebuild their community on top of what the lava covered. In turn, this will incorporate equitable beach access to the local communities as it creates a positive relationship between the residents and the visitors as the residents wish to create interactive tourist opportunities to educate about the lava and view eruptions sights while in return the visitors help to pay to plant tree seeds and contribute to restoration efforts in Puna.

Puna is a sacred district of the Hawai'i as it is the location of where Pele took her first steps. The stories of the creation of Puna as well as the stunning landscaped it showcases makes it a district in which its resident have a close connection to the land throughout generations. Following the volcanic eruption of Mount Kīlauea in 2018, the residents of Puna lost their homes and beloved recreational areas to the lava, and are now tasked with revitalizing recreational spaces that supports the needs of equity and access through community-based placemaking methods to ensure that the redevelopment of Puna's infrastructures, utilities, and community spaces fit the needs of Puna's community as a whole. To ensure

that tourism provides equity to Puna, the Cultural Resilience Capacity Area of Revitalize Puna and Puna's residents collaborate to create workshops and training sessions for tour operators to learn how to educate visitors such that they cultivate a caring relationship to Puna's land and people. To ensure equity in access to recreational spaces, the C-RCA hosts community-led training sessions on place and the significance of Wahi Pana, or sacred sites, to encourage tour operators, residents, and visitors so that people can cultivate a respectful relationship to the land and understand not to interfere with recreational spaces that warn people who are not lineal descendants not to enter. From my research, I learned that creating such spaces that are equitable in access and community-based placemaking require extensive learning and training from the community to the community. The County of Hawai'i as well as the National Park Service already created signage, programs, and community engagement events to set the structure for equitable recreational spaces, and now it is up to the residents of Puna to lead efforts towards inspiring relationships between the visitors and land through education and regenerative tourism. Hawai'i County's Revitalize Puna program can ultimately be seen as a model for other parts of Hawaii for how communities can create equitable spaces that address the needs of both visitors and residents to create mutual care and upkeep of recreational spaces and may soon become a model for other parts of the world to follow in suite.

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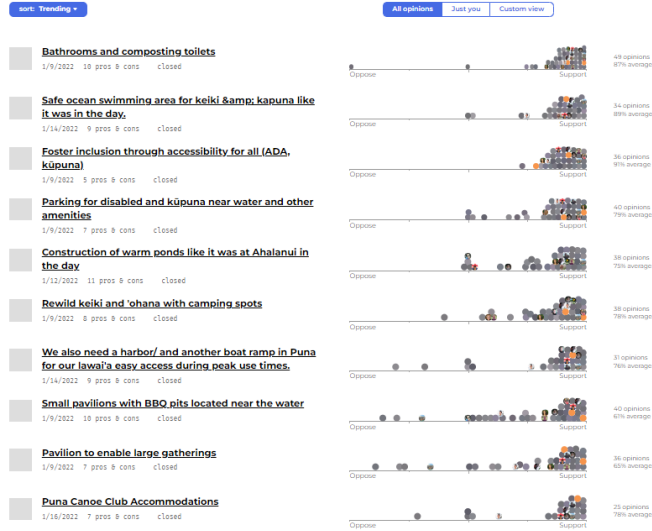
Appendix

Consider.It Poll Results

<https://revitalizephoiki.consider.it/>

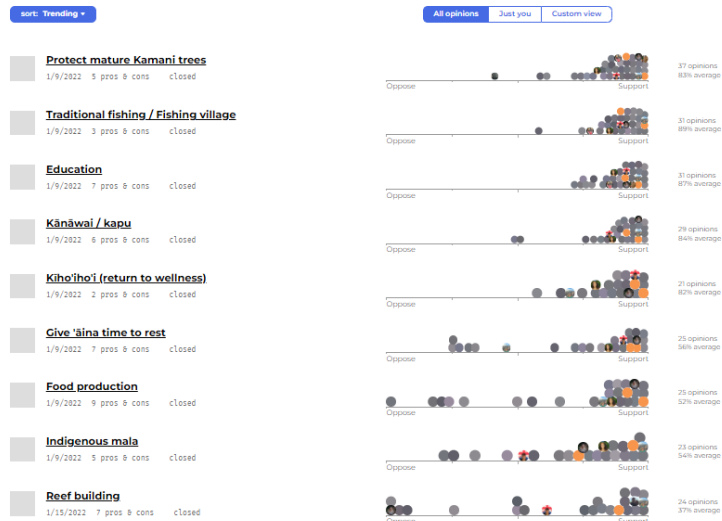
Appropriate Amenities

Support family gatherings, connections to place/pāliāina 'āina, and provide further accessibility to the ocean. Address concerns related to the lack of necessary and critical infrastructure.



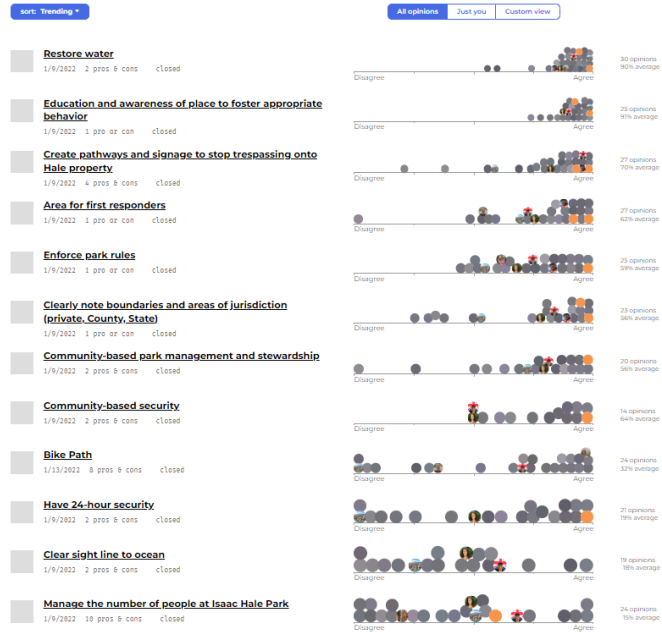
Honor Cultural Identities

Sustain and protect the cultural identities and practices through management and awareness of natural resources.



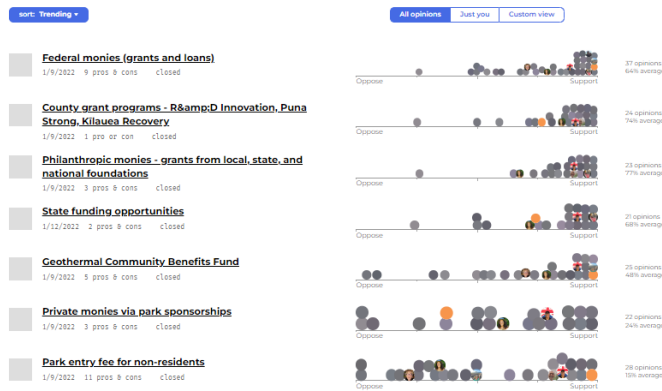
▼ Safety & Security

These concerns and ideas serve to protect and respect residents of Pohoiki and their property. They also act to create a safe environment for all visitors to the area.



▼ Support & Partnerships

Potential sources of funding and financial support, and examples of community/public partnerships for 'āina management and stewardship.



Interview Questions

INTERVIEW QUESTIONS

1. How long have you lived in the Puna District? What area of Puna do you live in? What brought you to live in Puna District?
2. What is the closest public park or public space near your home? How far away is it?

3. How often do you travel to these public spaces? What brings you to these spaces?
 4. Do you feel that the parking spaces accommodate both residents and visitors to public areas? What would you suggest improving access/parking?
 5. Is tourism prevalent in these areas? Do they affect your experience at beaches or parks?
 6. What is something that you value in Puna's public spaces?
 7. What changes would you like to see/do not want to see in Puna's beaches and parks?
 8. How can we create resilient public spaces that enhance our connection to place?
 9. Have you participated or viewed the Revitalize Puna "Consider It" Survey administered by Revitalize Pohoiki? (If they answer no, I can talk about the results with them and gain their views)
 10. What is your stance on [Consider It survey result]?
-

Survey Questions

SURVEY QUESTIONS

Pohoiki's Isaac Hale Beach Park

1. What area of Puna do you live in?

<ol style="list-style-type: none"> a. 'Āinaloa b. Eden Roc c. Fern Acres d. Fern Forest e. Hawaiian Acres f. Hawaiian Beaches g. Hawaiian Paradise Park h. Kalapana i. Kanaihiku Village j. Kapoho k. Kaueleau 	<ol style="list-style-type: none"> l. Kea'au m. Leilani Estates n. Mountain View o. Nānāwale Estates p. Orchidlands Estates q. Pāhoa r. Pohoiki s. Pualaa t. Volcano u. Other – please explain v. Prefer not to answer
---	---

2. How long have you lived in Puna District?
 - a. Less than a year
 - b. 1-5 years
 - c. 5-10 years
 - d. 10-30 years
 - e. More than one generation
 - f. I am a lineal descendant of Pohoiki or adjacent Ahupua'a (Keahialaka, Ahalanui, Laepao'o Oneloa)

3. How far away are you from Pohoiki?
 - a. I live there
 - b. I live within 5 miles
 - c. I live within 10 miles
 - d. I live within 20 miles
 - e. I live more than 20 miles away.
 - f.
4. How often do you visit Pohoiki? [sliding scale or multiple choice]
 - a. More than once a week
 - b. Once a week
 - c. Once every couple of weeks
 - d. Once a month
 - e. Once every few months
 - f. Every year
 - g. Never (feel free to skip any questions about Pohoiki)
5. How do you commute to Pohoiki?
 - a. I drive myself
 - b. My friends drive me
 - c. I walk/bike there
 - d. I take the bus
 - e. Other

Sliding Scale:

6. How difficult is it to find parking to Pohoiki?
 - a. Easy
 - b. Neutral
 - c. Challenging
7. How crowded is Pohoiki when you visit?
 - a. Mostly open
 - b. Neutral
 - c. Very crowded
8. How prominent is tourism in Pohoiki?
 - a. Little to no tourists
 - b. Even mix of tourists and residents
 - c. Tourists are the majority of visitors
9. How has tourism impacted your time at Pohoiki
 - a. Positively

- b. Neutral
 - c. Negatively
10. How strong do you feel the rule enforcement is at the Isaac Hale Beach Park?
- a. Weak
 - b. Neutral
 - c. Strong

Why do you recreate in Pohoiki?

11. Why do you visit Pohoiki? Select any answer that applies:
- a. Developing my skills and abilities
 - b. Taking risks/testing my limits
 - c. For exercise
 - d. Gaining a sense of self-confidence
 - e. Being with friends or family
 - f. Meeting new people
 - g. Teaching others about the outdoors or an activity
 - h. Being close to nature
 - i. Enjoying the scenery or wildlife
 - j. Learning about the area's history
 - k. Escaping everyday responsibilities
 - l. Spiritual renewal
 - m. Reducing mental stress
 - n. Developed facilities available
 - o. Primitive or few facilities available
 - p. Preparation for a future trip or testing equipment
 - q. Part of my heritage
 - r. Other(s)

12. What activities do you do in Pohoiki?

a. [short answer, list]

Sliding scale:

13. Outdoor recreation feels more beneficial to my health and well-being

- a. Agree
- b. Neutral
- c. Disagree

14. Outdoor recreation positively impacts my personal development

- a. Agree
- b. Neutral
- c. Disagree

15. Outdoor recreation makes me feel closer to my community

- a. Agree
- b. Neutral
- c. Disagree

16. Outdoor recreation helps to increase my work productivity

- a. Agree
- b. Neutral
- c. Disagree

Land use and Access:

The following questions are in relation to the Revitalize Puna's ConsiderIt survey that was sent to Puna's participants in the Winter of 2022.

[type of shuttle]

17. There should be a parking fee for everyone who visits Isaac Hale Beach Park

- a. Agree
- b. Neutral
- c. Disagree

18. Comment (optional)

19. There should be a parking fee for those who are non-residents visiting the beach

- a. Agree
- b. Neutral
- c. Disagree

20. Comments (optional)

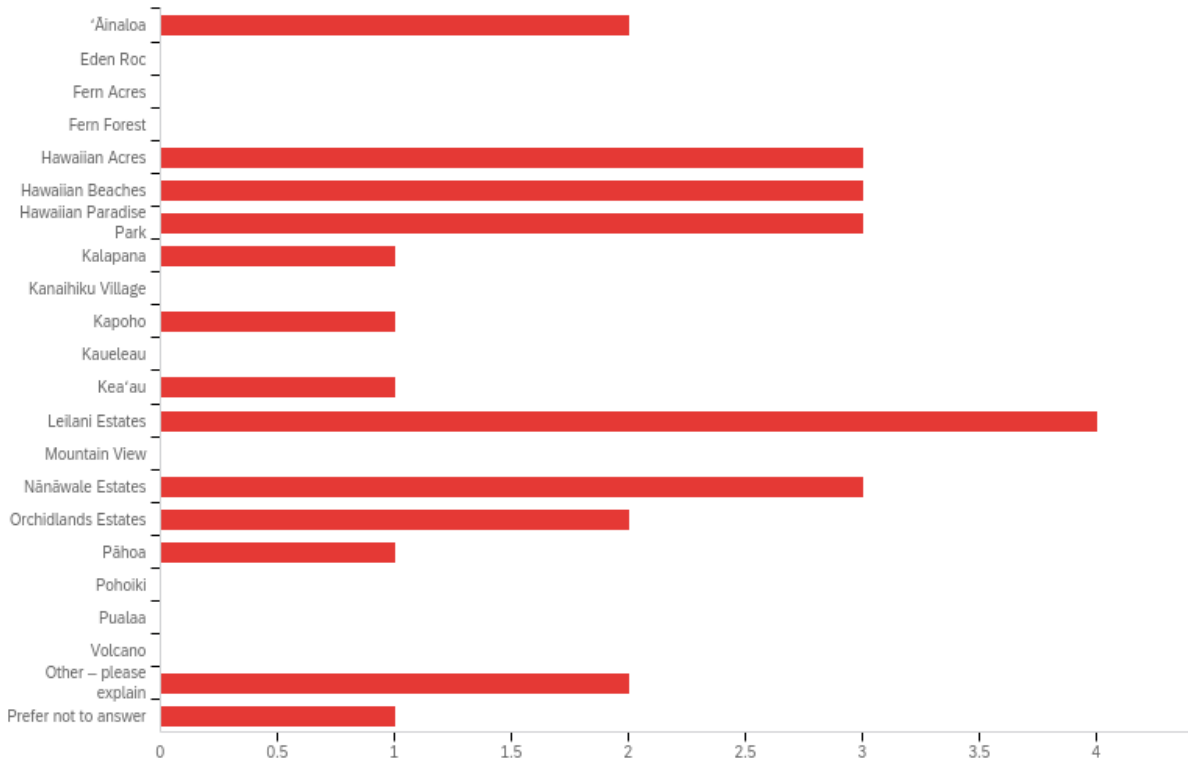
21. I would like to see more bike paths to the Isaac Hale Beach Park

- a. Agree
- b. Neutral

- c. Disagree
22. Comments (optional)
23. Should the park be expanded to accommodate more cars?
- a. Yes
 - b. Neutral
 - c. No
24. Comments (optional)
25. [large gatherings?
26. How has tourism impacted your time on Isaac Hale Beach Park
- a. Significantly
 - b. Natural
 - c. Not at all
27. Comment (optional)
28. How do you feel about access to Isaac Hale Beach Park? Please explain in a short response:
29. Would a shuttle from Pāhoa to Isaac Hale Beach Park help improve local access?
- a. Agree
 - b. Neutral
 - c. Disagree
-

Survey Responses

Q1. What area of Puna do you Live in?

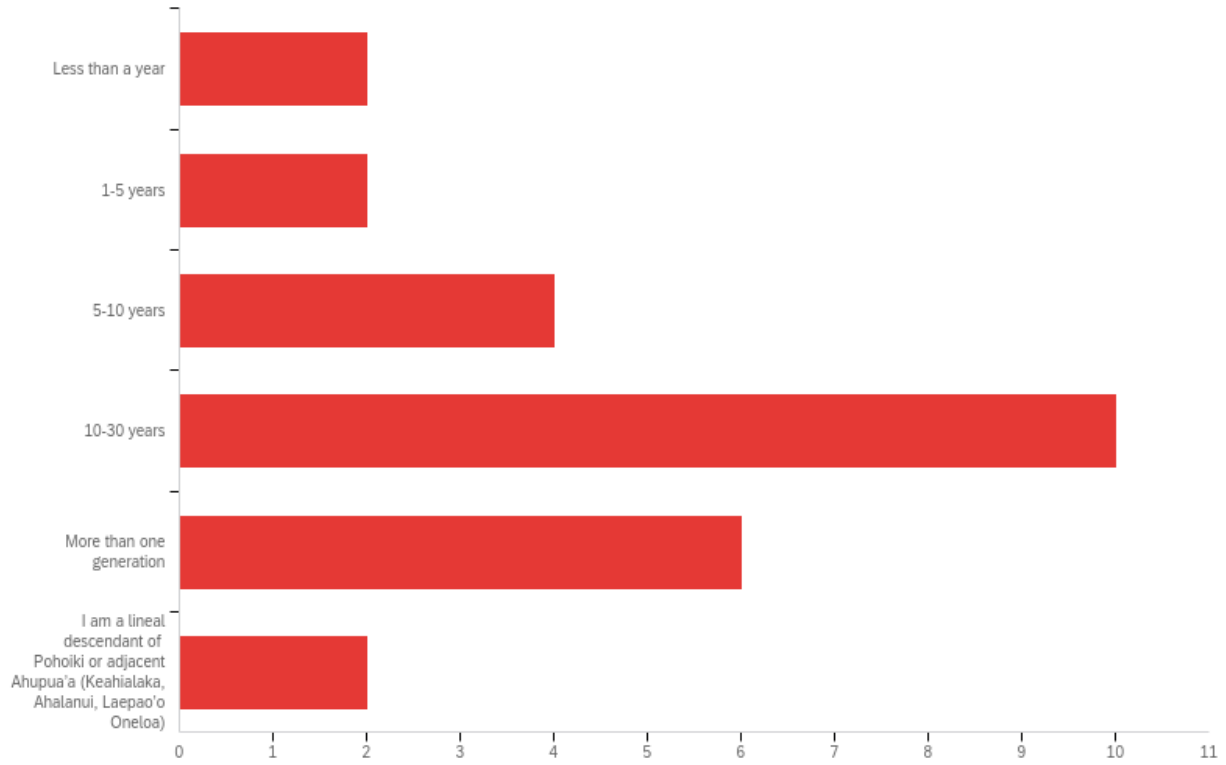


Other – please explain - Text

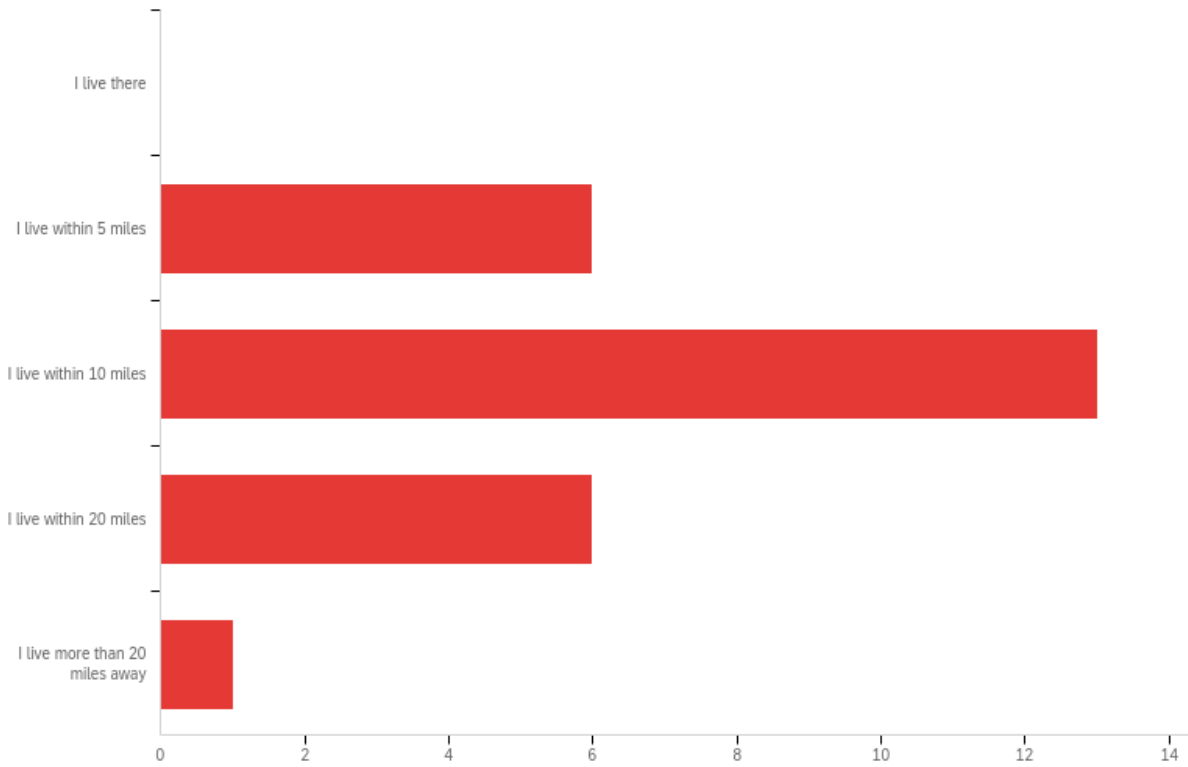
Maku'ū Hawaiian Homesteads

Loss our house in 2018 living on my grandmother's property Makuu Hawaiian homes

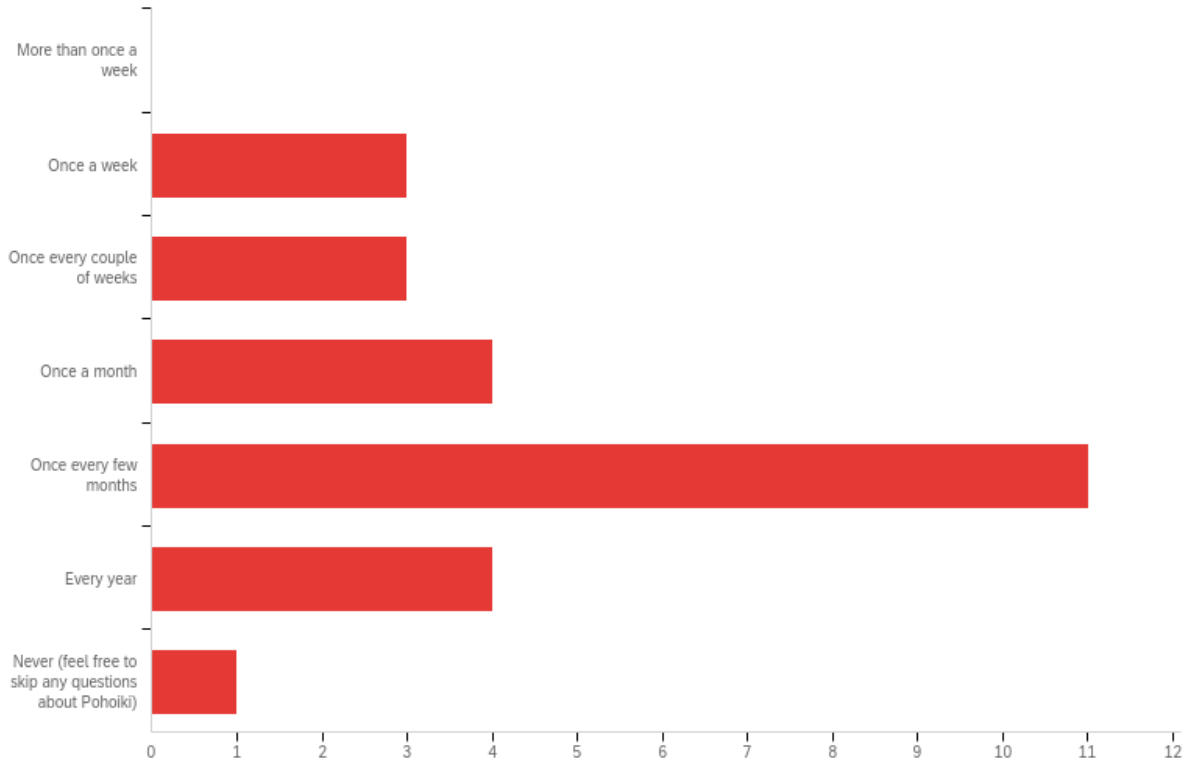
Q2. How long have you lived in Puna district?



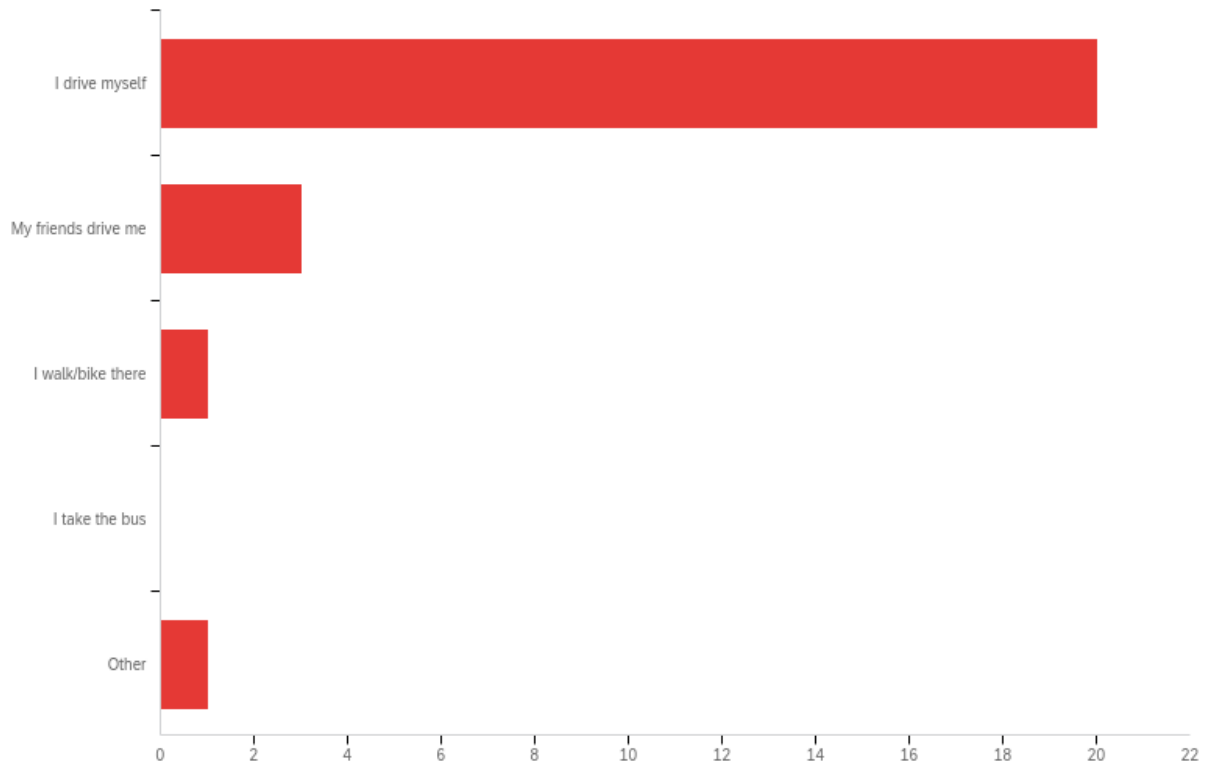
Q3. How far away do you live from Pohoiki?



Q4. How often do you visit Pohoiki?



Q5. How do you commute to Pohoiki?



Flyer for Survey

PARTICIPATE IN A GRADUATE
**RECREATION
RESEARCH
STUDY**



Do you live in **Puna, Hawaii**?

Would you like to share your **recreation experiences** to help inform a graduate research study?

Then please take this quick survey!

About the Project: The purpose of this project is to explore ways for equitable public spaces to be created through community-driven placemaking in which both residents and visitors feel welcome and part of a responsible relationship in caring for the land. Information from this survey will be used to create recommendations for other communities to use to create more equitable public spaces.



Scan Here

Paper surveys are available upon request.



For questions, please contact:
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Aloha Does Not Burn—a poem by Kendra Tidwell

IF I COULD DO AN ACID RAIN DANCE AND CALL THE BURNING FROM ABOVE AT LEAST MY HOUSE WOULD STAND A CHANCE TO STILL BE THE HOME I'VE DREAMED OF. OH, THE WATERS OF A TIDAL WAVE - HOW I'D SPLASH AND WADE WITH JOY! AND FOR A TSUNAMI, I'D BE BRAVE, BECAUSE THEY LEAVE AFTER THEY DESTROY. I'D RIDE OUT A SINGLE EARTHQUAKE - HECK, EVEN MORE THAN ONE! BECAUSE AFTER THAT SCARY SUDDEN SHAKE I'D KNOW THAT IT WAS DONE. THE GENTLE BREEZE OF A HURRICANE IS WELCOME TO COME AND BLOW. WHAT'S A LITTLE WIND AND RAIN COMPARED TO A LAVA FLOW? IF A FIRE PASSED THROUGH IN A FLASH IT'D BE A MINOR INTERRUPTION. I COULD HANDLE THE SOOT AND ASH EASIER THAN THIS ERUPTION. A LANDSLIDE SOUNDS DOWNRIGHT FUN! AND TORNADOS STICK TO THEIR PATH. BECAUSE ONCE THEY'RE DONE - THEY'RE DONE, YOU GET TO DEAL WITH THE AFTERMATH. SMOKE AND GAS WOULD BE JUST FINE. OR A FLOOD! A PREFERABLE PLIGHT! BUT ALL WE'VE GOT IS THIS FAULT LINE AND MAGMA WITH NO END IN SIGHT. HOMES ARE GONE, IT SURE SEEMS BLEAK. BUT EVEN IF WE CAN'T RETURN, LAVA ISN'T ALL THAT MAKES US UNIQUE - ALOHA JUST DOES NOT BURN.

Notable Quotes from Interviews

“A fishing spot but over the years of family generations, they would throw out bait to the fish not it’s not like taking, taking, taking, but also giving.”

“As long as you don’t cause trouble to everyone else, then I think that tourism is fine.”

“For the fishermen, which was the only place they had. Now they have to go out of Hilo.”

“Fortunately, where we are, we have a couple of acres for recreation and running around.”

“Haoles coming and saying ‘no, you can’t have access to what may very well be your land.’”

“I had been going through the shock of losing Ahalanui. That was the park I went to the most. I would be able to feel at one with the elements.”

“I haven’t been here probably in three years, partly due to COVID.”

“Our playground equipment has been roped off for years because its unsafe. These poor kids, its recreation for them.”

“I know there’s a lot of initiatives to get people learning about where they come to, and how they can give back. I think it would be really neat to see, but I don’t see it in terms of affecting tourists.”

“It’s kind of contradictory to, you know, you want to keep it as original as you can, but also I think that it should be modernized to what extent they can have it—more access and walking paths.”

“It’s my husband’s family who is from here and he wanted to be closer to his family.”

“People asking if they can swim in the waves—it not advisable; it is the river of destruction.”

“The county didn’t bring the infrastructure back and said that the resin was nobody wanted to move back there. But in point of fact, the reason nobody’s moving back here is because they didn’t bring the infrastructure back. It’s a chicken and egg kind of thing.”

“There used to be a telephone line but there hasn’t been one here for years. They never brought it back.”

“Transportation isn’t strong here. I don’t think it is seen as a priority. But it’s definitely something that would be useful to have a better system because then people don’t have transportation, then you’re stuck. The county isn’t paying for maintenance”

“You can walk down to the highway and catch the bus, but it doesn’t run that frequently.”

“You can go there and look but have your limits.”

“Making sure that people are being respectful—this is where people list homes or lost access to the beach.”

“We know that tourism is important for our community, so I see it as a positive.”

“They would go out in their canoes, and they would feed the fish to the point where the fish knew that they were gonna get fed and started jumping in the boats.”

“How are you going to implement ecotourism so that we can teach our kids who grew up here to do it as well and not have it coming from somewhere else? Because that’s just taking advantage of tourists.”

“If they said ‘we’re gonna put all the infrastructure back and then make a decision,’ then the people would have the ability to decide.”

“Nobody expects the county to excavate the old Ahalanui.”