

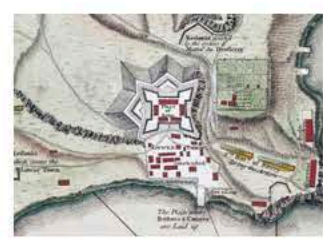
Appendix of Student Creative Cartographic Practice

This Appendix is comprised of a selection of maps produced in the course and a description situating each story and subsequent series of maps. Students in the course were asked to create 4–5 maps inspired by mapping techniques introduced in the course. In addition to the maps, students submitted a reflection on each individual map. This Appendix, while incomplete, provides a glimpse into students' stories, maps, and mapping processes.

Cameron Kline

I was a second-year PhD student in Syracuse University's History Department when I enrolled in Geography 678. By engaging with the readings, class discussions, sketchbooks, and the drafting of five different maps with accompanying reflections, I grew as a scholar. Some of my most transformative projects included: Benedict Arnold: From American General to British General in Eleven Steps in which I story mapped eleven key moments in Arnold's military career to highlight how geography intersected with his shifting allegiances and identity. The second, Ona Judge's Topology and Relationships, used circular and color-coded symbology to visualize the evolving power dynamic between Ona Judge and George Washington across multiple locations. And the third, Ona Judge's Borders, layered physical and legal geographies to reveal how her enslavement and escape from Philadelphia, PA shifted across space and time. The full collection of maps can be found on my website at: [\[author website\]](#)

I no longer see maps as mere instruments of geography and orientation. Instead, I understand them to be flexible tools that can convey emotion, memory, power, and resistance; amplify silenced and marginalized figures; and question dominant narratives. Equally important, I came to understand the necessity of recognizing my own positionality and the biases I bring to my ongoing historical research.



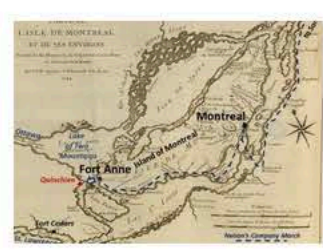
Capture of Fort Ticonderoga

May 10, 1775



Battle of Quebec

Dec 31, 1775



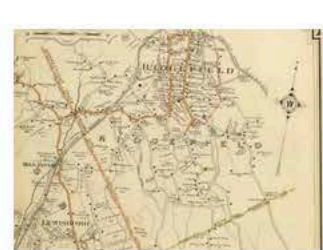
Battle of the Cedars

May 1776



Battle of Valcour Island

Oct. 11, 1776 The naval Battle of Valcour Island, also known as the Battle of Valcour Bay, took place on October 11, 177...



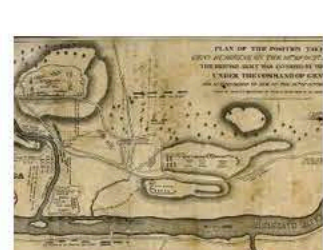
Battle of Ridgefield

April 27, 1776



Siege of Fort Stanwix

Aug 2 - 22, 1777 Fort Stanwix was a target for British General John Burgoyne, who sent brevet Brigadier Genera...



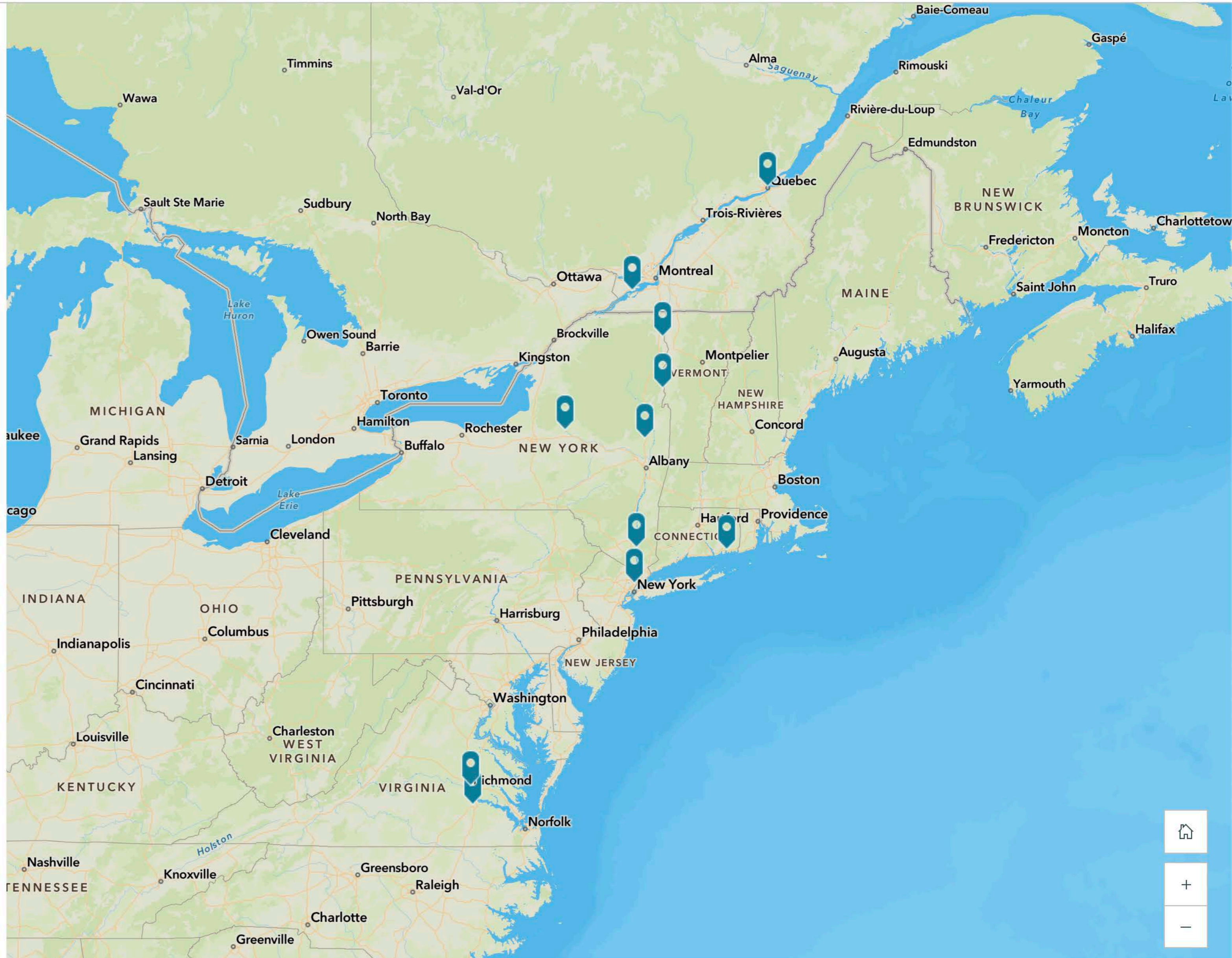
Battles of Saratoga

Oct. 7, 1777



West Point

Sept. 23, 1780



Ona Judge: Freedom Regained

Ona Judge was owned by the family of George Washington and in 1789 was one of nine enslaved people the president brought with him to the presidential residence at the corner of 6th and Market Sts. in Philadelphia. Ona Judge was commanded to serve Martha.

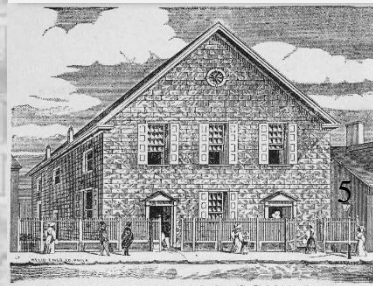
In 1796, as the Washingtons prepared to return to Virginia, Ona learned that she was to be given as a wedding gift to Martha Washington's granddaughter Eliza. Her fiancé was Thomas Law, a real estate speculator with a reputation for sexual assault. So, fearing for her safety and a life of perpetual enslavement, Ona made the courageous decision to escape on May 21, 1796. She fled the President's House in Philadelphia thanks to help from Rev. Richard Allen and the capital's abolitionist community.

Judge made it to New Hampshire, married, and had three children. She lived the remainder of her life in relative obscurity, but her story, thanks to interviews she gave in 1845 have become a testament to the harsh realities of enslavement and the resilience of those who wanted freedom.

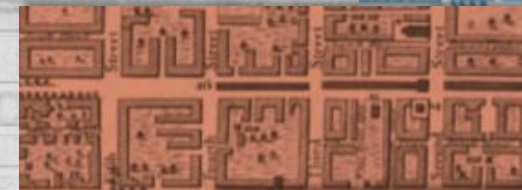


"I knew that if I went back to Virginia, I should never get my liberty. I had friends among the colored people of Philadelphia, had my things carried there before and, and left Washington's house while they were eating dinner."

Ona Judge 1



Mother Bethel A. M. E. Church, the first Colored Methodist Church in Philadelphia, established in 1787



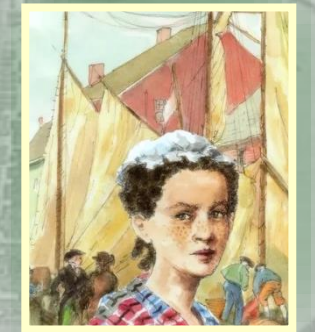
"[T]he ingratitude of the girl, who was brought up & treated more like a child than a Servant (& Mrs Washington's desire to recover her) ought not to escape with impunity if it can be avoided."

George Washington 4

"Richard Allen ... [formed] the first mutual aid society in Philadelphia and its goals were to help widows, the poor, and fugitive slaves..." 3

"No, I am free, and have, I trust been made a child of God by the means."

Ona Judge 6



This map of 1796 Philadelphia begins with Ona's fear about remaining in the President's House, Allen's supportive Mother Bethel AME Church, Ona's journey from the president's house, undocumented time in hiding, Washington's attempt to recapture her, and her journey aboard the *Nancy*, a ship commanded by Captain John Bolles, to Portsmouth, New Hampshire. 2 Many of the dates associated with Ona's quest for freedom are not known especially, secrecy was paramount and she left no written record, her time hiding for a short period of time before she sailed to New Hampshire.

References

1. T. H. Adams, “Washington’s Runaway Slave, and How Portsmouth Freed Her,” *Granite (NH) Freeman*, May 22, 1845, reprinted in Frank W. Miller, *Portsmouth New Hampshire Weekly*, June 2, 1877. *The President’s House in Philadelphia*. Part I. Accessed March 2, 2024. <https://www.ushistory.org/presidentshouse/history/pmhb/ph1.php/>.
2. John Hills and John Cooke. *This plan of the city of Philadelphia and its environs showing the improved parts*. Philadelphia: Published and sold by John Hills, surveyor & draughtsman, 1796. Map. <https://www.loc.gov/item/2007625050/>.
3. Schomburg Center for Research in Black Culture, Manuscripts, Archives and Rare Books Division, The New York Public Library. “Bethel A.M.E. Church, the first Colored Methodist Church in Philadelphia, established in 1787.” New York Public Library Digital Collections. Accessed March 2, 2024. <https://digitalcollections.nypl.org/items/510d47df-9d9d-a3d9-e040-e00a18064a99/>. Erica Armstrong Dunbar. *Never Caught: The Washington’s Relentless Pursuit of their Runaway Slave, One Judge*. New York: Simon and Schuster, 2017.
4. “From George Washington to Oliver Wolcott, Jr., 1 September 1796,” *Founders Online*, National Archives, <https://founders.archives.gov/documents/Washington/05-20-02-0397>.
5. Erica Armstrong Dunbar, *Never Caught: The Washingtons’ Relentless Pursuit of Their Runaway Slave Ona Judge*. New York: Simon and Schuster, 2017.
6. *Seacoast Online*. Accessed March 2, 2024. <https://www.seacoastonline.com/story/news/local/portsmouth-herald/2017/04/03/portsmouth-s-ona-judge-is/216420210/>.

Portsmouth, NH

11. In 1797, Ona married John Staines and together they had three children: Nancy Staines, Eliza Staines, and Will Staines. She outlived her entire family.



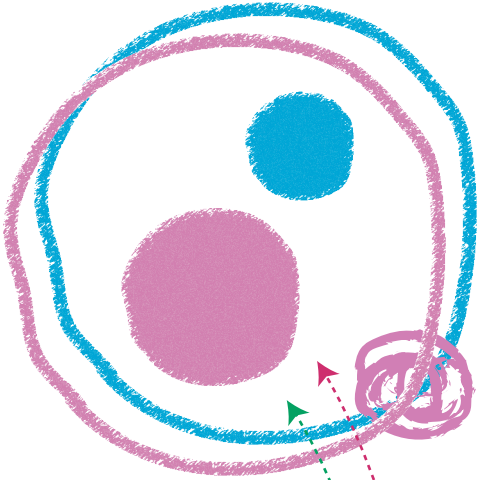
10. Portsmouth was unlike any place Ona Judge had ever lived. It was small compared to Philadelphia and New York City. She took a job as a laborer, the work was hard, and she was completely alone.

12. "Her life had been difficult, but for fifty-two years Ona Staines never lost faith in herself. Every day that the fugitive opened her eyes, she knew one thing to be true: she would 'rather suffer death' than return to slavery." Ona died on February 25, 1848, in Greenland, NH, she was 75 years old.

New York, NY

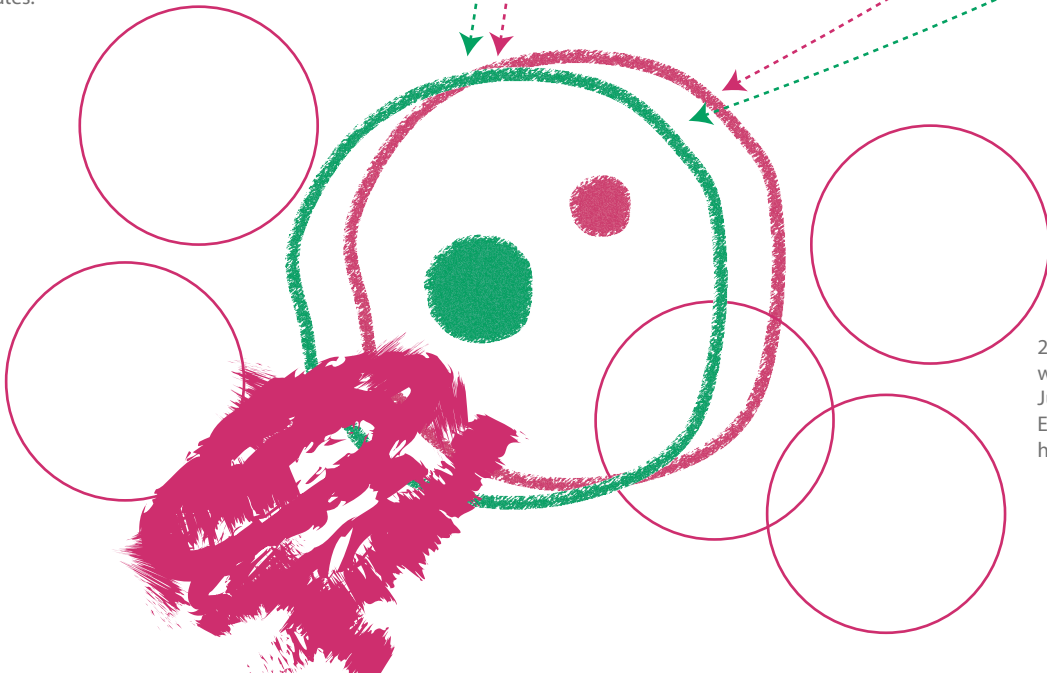
4. On April 30, 1789, at Federal Hall in New York City, the first capital of the United States, Washington took the presidential oath of office... [H]e said, "I, George Washington, do solemnly swear that I will faithfully execute the Office of President of the United States, and will to the best of my Ability, preserve, protect and defend the Constitution of the United States."

5. We can only assume Ona's transition from Mount Vernon to the President's house in New York City was difficult, she left no record. She was thrust into the national spotlight and was charged with caring for Martha Washington and anticipating her every need.



6. Enslaved individuals who lived in New York City had to hide in plain sight. The city with its many residents and visitors presented dangers ranging from enslavers to potential attackers. Ona had to navigate this dangerous space nearly every day.

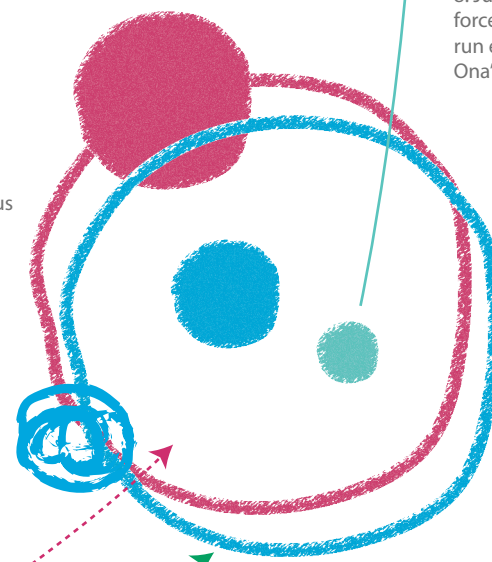
3. In 1789, the United States held its first presidential election and George Washington was unanimously elected president of the United States.



1. Ona's mother was named Betty, she born around 1738, and was a dower enslaved woman. Which meant that she was "property" owned by the Custis Estate. If the estate was devalued, Virginia law required the estate to be made financially whole.

Philadelphia, PA

7. There were individual abolitionist actors of note furthering the cause in Philadelphia. One was the co-founder of the Free African Society and the Bethel African Methodist Episcopal Church, Richard Allen, who was a religious leader in Philadelphia's Black community. We are not certain, but he may have aided in Ona's

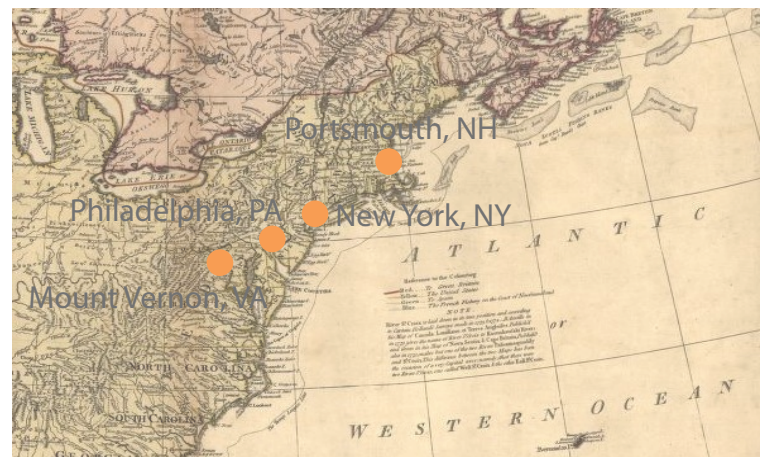


8. Just like she did in New York City, Ona was forced to serve Martha. She had to dress her, run errands for her, and serve her every need. Ona's time and existence were not her own.

9. Ona realized that she was going to be given as a wedding gift to the temperamental, nineteen-year-old Elizabeth Parke Custis, Martha's step-grandchild, and her husband who had a less than honorable reputation. Ona knew that the small moments of independence she enjoyed in Philadelphia would be gone forever. She knew that a lifetime of enslavement and possible sexual assault waited for her if she did not act. Ona still had no control of her life and future. Her service to the Washington's meant nothing to them. On Saturday, May 21, 1796, Ona Judge escaped from the President's house, hid, received support from the city's free Black community, and eventually sailed to Portsmouth to start a new life.

2. Ona, like her siblings, had a surname. It was her father's who was named Andrew Judge. Andrew was a white, indentured Englishman who abandoned Betty and his other children.

Mount Vernon, VA



Ona Judge: Freedom Regained

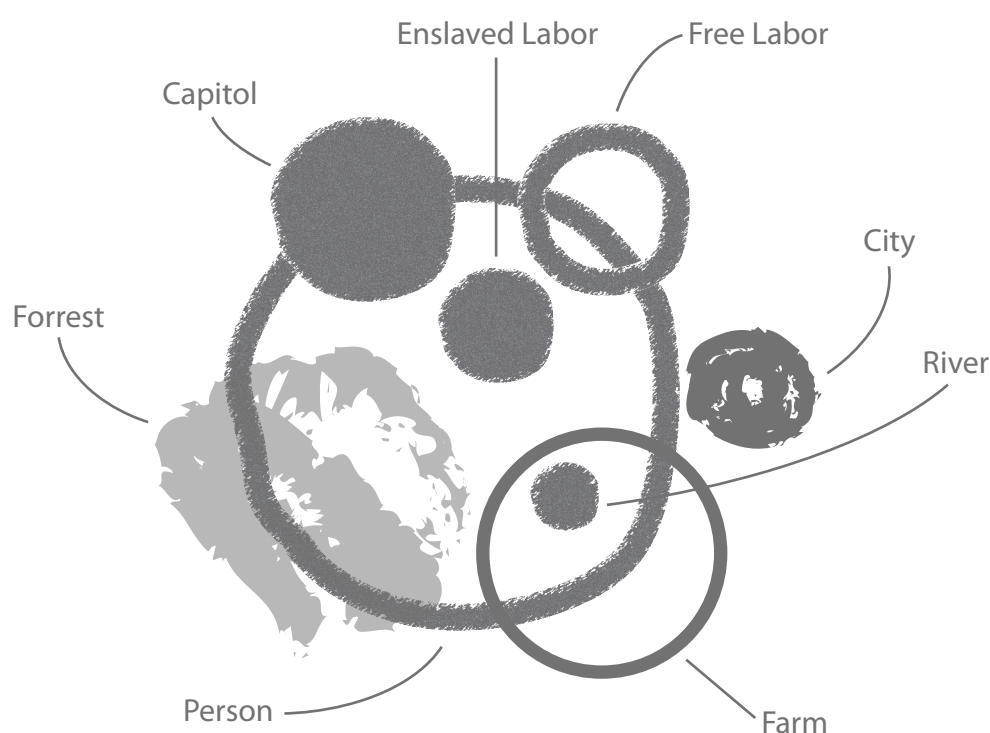
How to Read This Map

This map is about space, relationships to place, and the celebration of non-traditional power dynamics. Ona Judge's story and movements are shown through a series of quotes and shapes that trace her journey from Mount Vernon to Portsmouth. The map's symbology shows the key features of her journey, and the colors indicate the frequency of Judge's and George Washington's movements. The text, read in numerical order, guide the viewer through her quest to escape enslavement and gain her freedom.

Why Was This Map Made

Judge, an enslaved women who was controlled by George and Martha Washington, is a seminal figure in American History. In 1796, Judge slipped out of the president's house in Philadelphia to begin a new life of freedom. This map shows her movements between Mount Vernon, where she was born enslaved; New York and Philadelphia, the new capitols of the United States where she served Martha; and Portsmouth to begin a life of freedom after hiding in Philadelphia and then clandestinely sailing North. We know her story because before her death in 1848, she allowed herself to be interviewed. Her empowering story was later celebrated with the release of Erica Armstrong Dunbar's *Never Caught: The Washington's Relentless Pursuit of Their Runaway Slave* in 2017.

	Once	Several Times	Often
Ona Judge			
George Washington			



Borders

Ona Judge's Quest for Freedom

Cameron L. Kline
GEO 478/678 Spatial Storytelling
Dr. Meghan Kelly

Table of Contents

Introduction

Positionality

Techniques

Layout

Symbolization

Experiential labels

Unknown borders

Individual Maps

Judge

Allen

Concluding Remarks

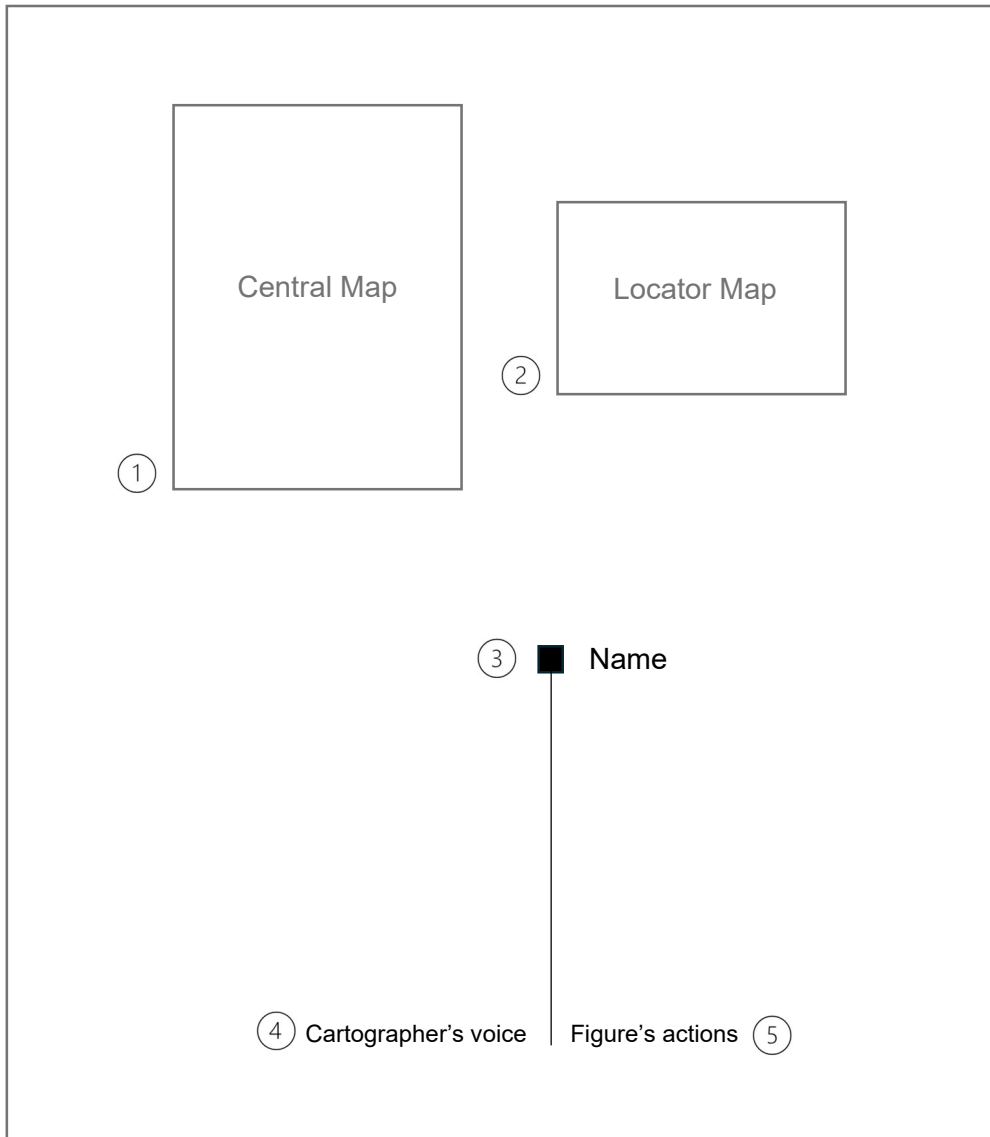
Introduction

Ona Judge, an enslaved woman who was controlled by George and Martha Washington, is a seminal figure in American history. In 1796, Judge slipped out of the president's house in Philadelphia to begin a new life of freedom. This mapping project shows the borders she crossed from Mount Vernon, where she was born enslaved; then to New York and Philadelphia, the new federal capitals of the United States where she continued to serve Martha; and finally, to Portsmouth to begin a life of relative freedom after hiding in Philadelphia and then clandestinely sailing North to New Hampshire.

This work owes a debt to Erica Armstrong Dunbar's *Never Caught: The Washington's Relentless Pursuit of their Runaway Slave, One Judge*. The quotes noted below come from Dunbar's 2017 monograph.

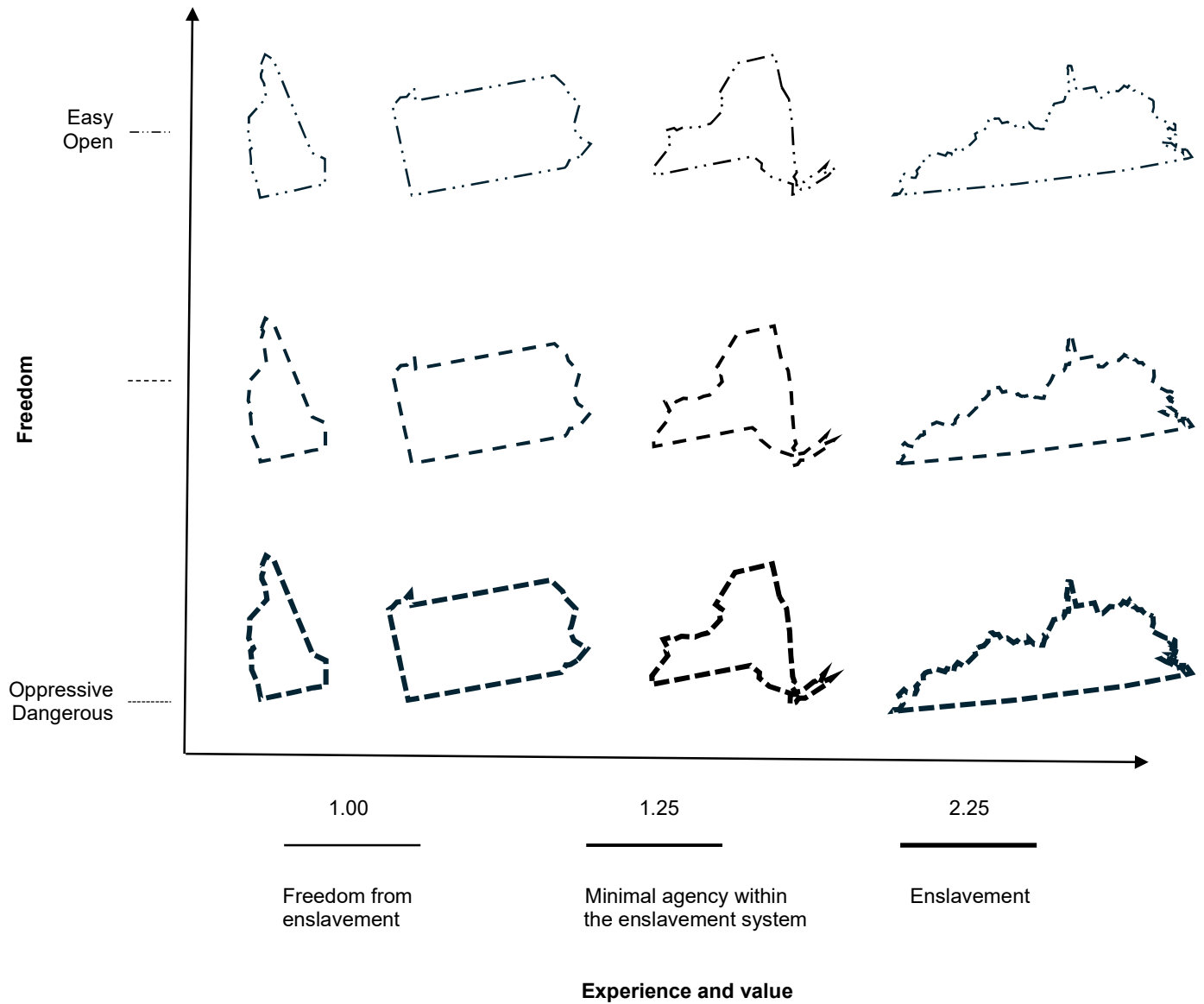
Positionality

As a second-year Ph.D. student specializing in Early American History, my reflexivity centers on acknowledging the advantages associated with my identity. As a white male, educated in traditional, privileged institutions, and having worked in powerful governmental and criminal justice organizations, I am acutely aware of the position of power I occupy. These experiences afford me certain advantages within academia, necessitating a critical examination of potential biases in my research and interactions. Recognizing the historical inequities embedded in the narratives I engage with; I am committed to amplifying marginalized voices and challenging traditional perspectives. My aim is to contribute to a more inclusive and nuanced understanding of early American history, leveraging my position to foster dialogue and promote diversity within the academic realm.



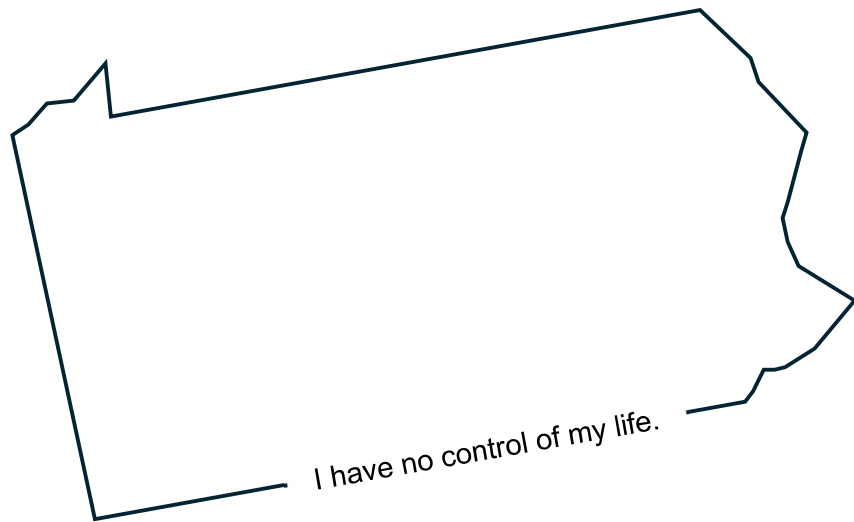
Techniques
Layout

The layout's focus is its central map and border (1). Viewers are invited to also look at the locator map (2) for context. The lower panel provides the figure's name (3). Cameron L. Kline is the cartographer and his voice is on the left (4) and the figure's actions (5) are on the right. Since Judge was enslaved, she never left a written record of her own.



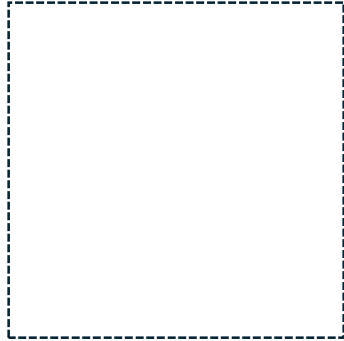
Techniques
Symbolization

Symbolization has been applied to New Hampshire, Pennsylvania, New York, and Virginia. The heavier the line, the more oppression the figures experienced. And the denser the dash, the more difficult it was for the figure to navigate enslaved and non-enslaved spaces.



Techniques
Experiential label

When applied, labels have been added to represent a figure's experience or perspective.



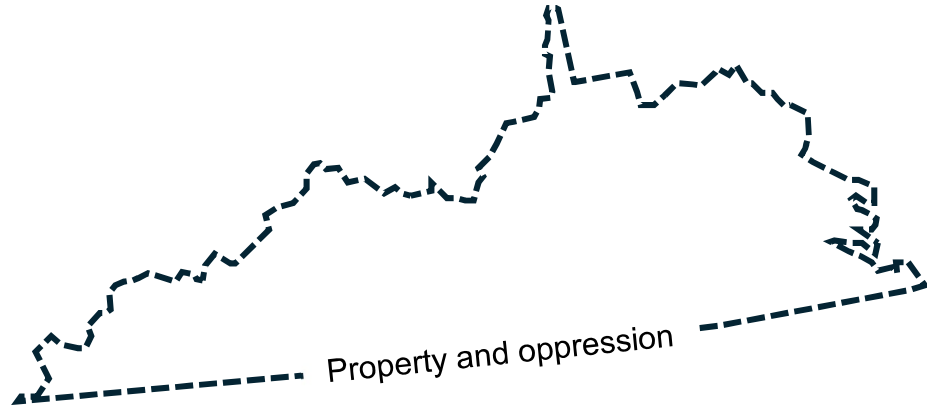
Techniques

Unknown borders

Scholars do not know all of Judge's or Allen's movements because they kept their allies a secret.

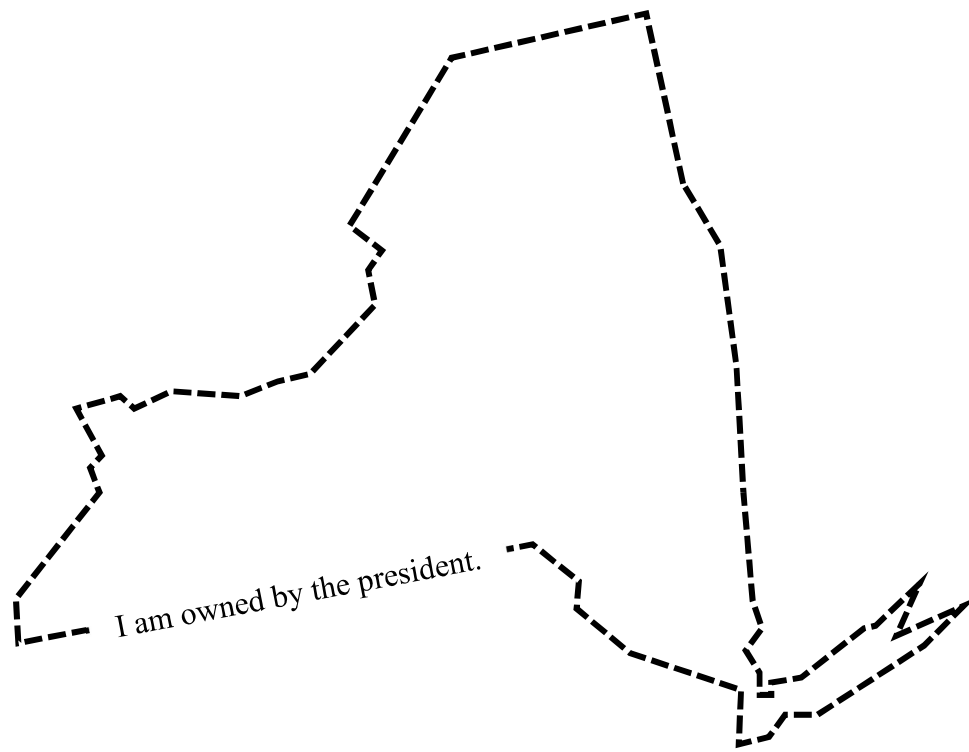
For example, after Judge escaped from the president's house in Philadelphia, she hid for an unknown period of time in a location she never revealed. Scholars believe Allen arranged for her to live with a member of Philadelphia's free, Black community near the Delaware River waterfront.

Individual Maps
Ona Judge



■ Ona Judge

Ona's mother was named Betty, she born around 1738, and was a dower enslaved woman. Her surname was Judge. Andrew, her father, was a white, indentured Englishman who abandoned Betty and his other children.

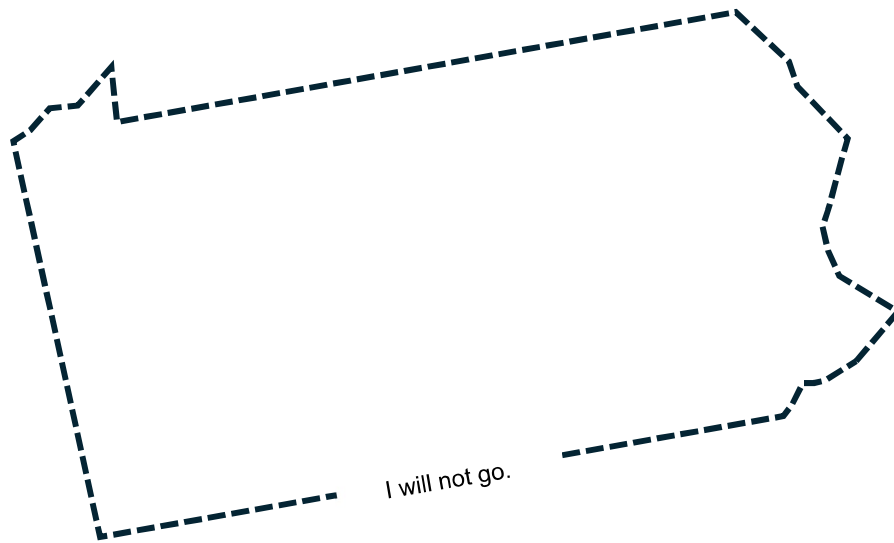


Ona Judge

On April 30, 1789, at Federal Hall in New York City, Washington took the presidential oath of office.

Enslaved individuals who lived in New York City had to hide in plain sight. The city, with its many residents and visitors, presented dangers ranging from enslavers to potential attackers. Ona had to navigate this threatening space nearly every day.

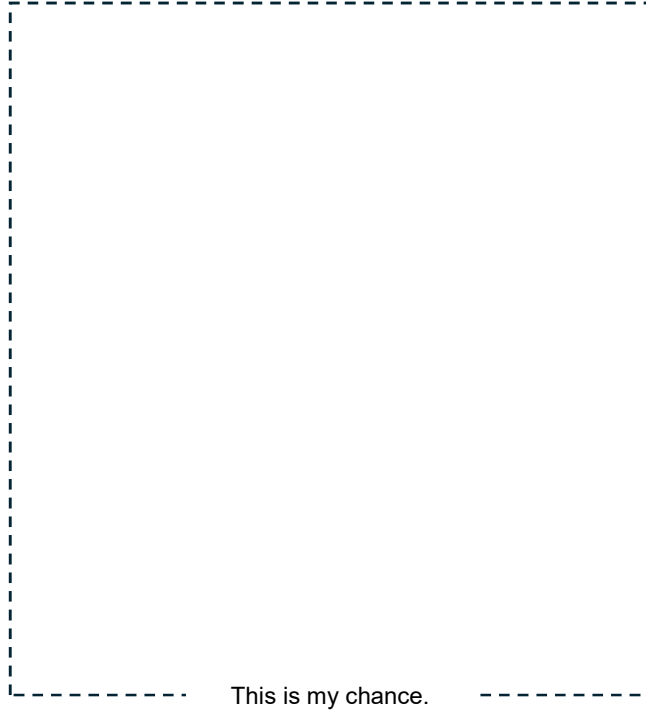
“We can only assume Ona’s transition from Mount Vernon to the president’s house in New York City was difficult, she left no record. She was thrust into the national spotlight and was charged with caring for Martha Washington and anticipating her every need.”



Ona Judge

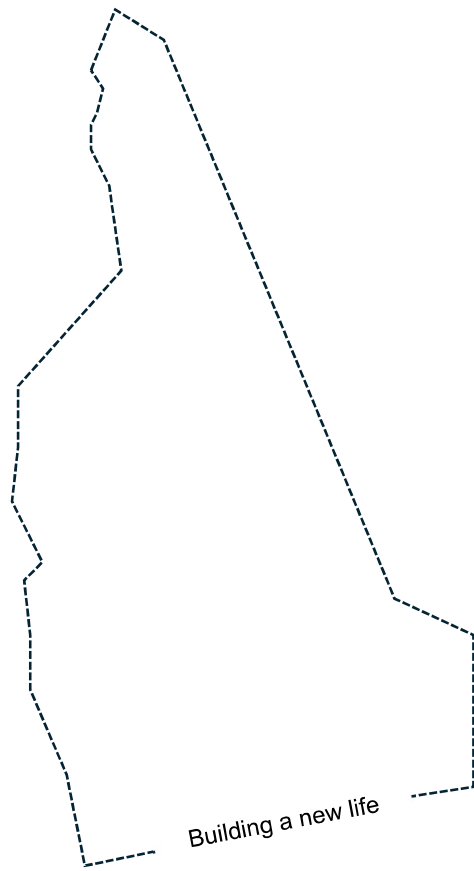
Ona discovered that she was going to be given as a wedding gift to the temperamental, nineteen-year-old Elizabeth Parke Custis, Martha's step-grandchild and her husband who had a less than honorable reputation. Ona knew that the small moments of independence she enjoyed in Philadelphia would be gone forever. She also knew that a lifetime of enslavement and possible sexual assault waited for her if she did not act. Judge still had no control of her life and future. Her service to the Washington's meant nothing to them.

Ona's time and existence were not her own.



■ Ona Judge

On Saturday, May 21, 1796, Judge escaped from the President's house and hid. She probably received support from the city's free black community before sailing to Portsmouth to start a new life.



Ona Judge

“Portsmouth was unlike any place Ona Judge had ever lived. It was small compared to Philadelphia and New York City. She took a job as a laborer, the work was hard, and she was completely alone. In 1797, Judge married John Staines and together they had three children: Nancy Staines, Eliza Staines, and Will Staines. She outlived her entire family.”



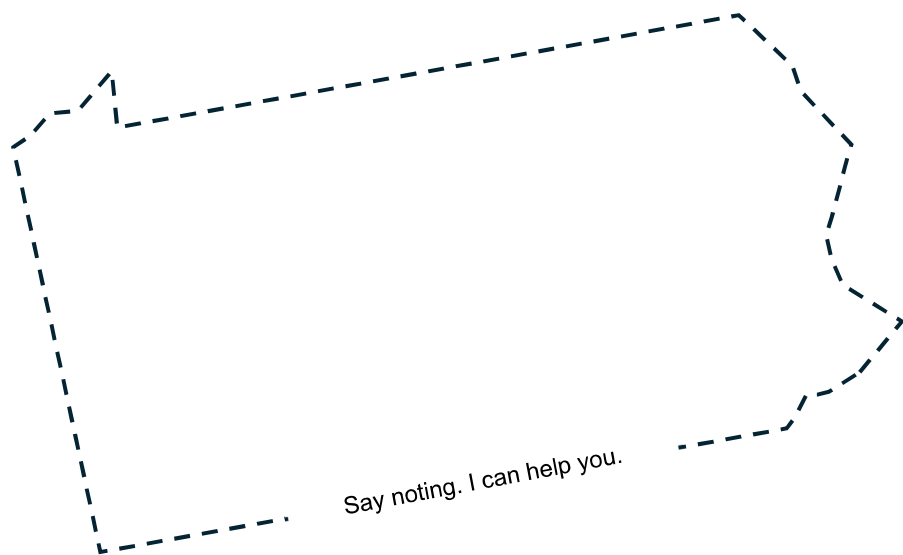
■ Ona Judge

“Her life had been difficult, but for fifty-two years Ona Staines never lost faith in herself. Every day that the fugitive opened her eyes, she knew one thing to be true: she would ‘rather suffer death’ than return to slavery. Ona died on February 25, 1848, in Greenland, NH, she was 75 years old.”

Individual Maps
Richard Allen

■ Richard Allen

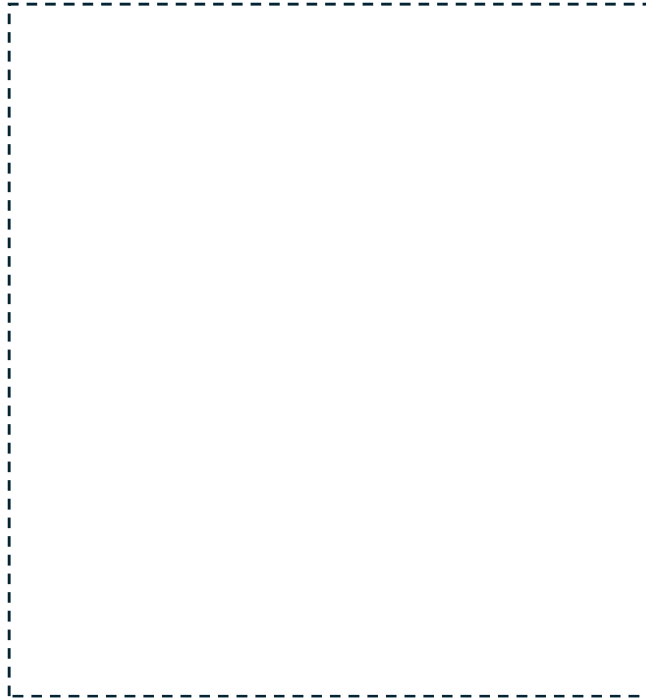
There were individual abolitionist actors of note furthering the cause in Philadelphia. One was the co-founder of the Free African Society and the Bethel African Methodist Episcopal Church, Richard Allen, who was a religious leader in Philadelphia's Black community. We are not certain, but he probably aided Ona's escape.



Say noting. I can help you.

■ Richard Allen

In addition to being the co-founder of the Mother Bethal Baptist Church, Allen was also a chimney sweep. The records kept by Tobias Lear, Washington's private secretary, show that Washington paid a chimney sweep for services at the presidential home before Judge escaped.



■ Richard Allen

On Saturday, May 21, 1796, Judge escaped from the president's house in Philadelphia. We don't know where Allen was or if he actually helped Judge, but it is extremely plausible.

Concluding Remarks

This mapping project was designed to present Ona Judge's quest for freedom within and through borders that were symbolized with different weights and line types. In her case, enslavement and non-enslavement, and celebrate her story outside of George Washington's shadow. Her emotions, thoughts, as best we can reconstruct, power, and life is a testament to her agency, relationships, and movements during one of the most pivotal periods of the early American republic.

Rachel Ameen

In the following maps, I experimented with a range of techniques to capture different aspects of the Adirondack Park. The diversity of methods we covered in Spatial Storytelling let me find creative ways to display information that is frequently overlooked by conventional cartography: emotions, connections, and personal experiences that bring meaning to place. This series of maps explores these dimensions of the Adirondacks through various mediums, with a focus on the plurality of perspectives woven within the park's cultural tapestry. My hand-drawn reference map pays homage to traditional cartography and regional art, which are frequently overlooked in contemporary mapping methods. I highlight the contrasting impact of borders on animals, humans, and institutions in the Adirondacks through my comparative map series. My linear travel map illustrates the individual experience of past Adirondack tourists, over time and through emotive frameworks. Lastly, my quilt map is a true challenge to traditional form, and represents my own personal connection with the Adirondack region and with quilting as a medium connecting me to my ancestry.

Hand-Drawn Reference Map



Mapping Borders: Tourists, Residents, Agencies, and Animals of the Adirondacks

The Adirondack (ADK) Park is a space shared by many human and non-human entities, each of whom experiences the region in radically different ways.

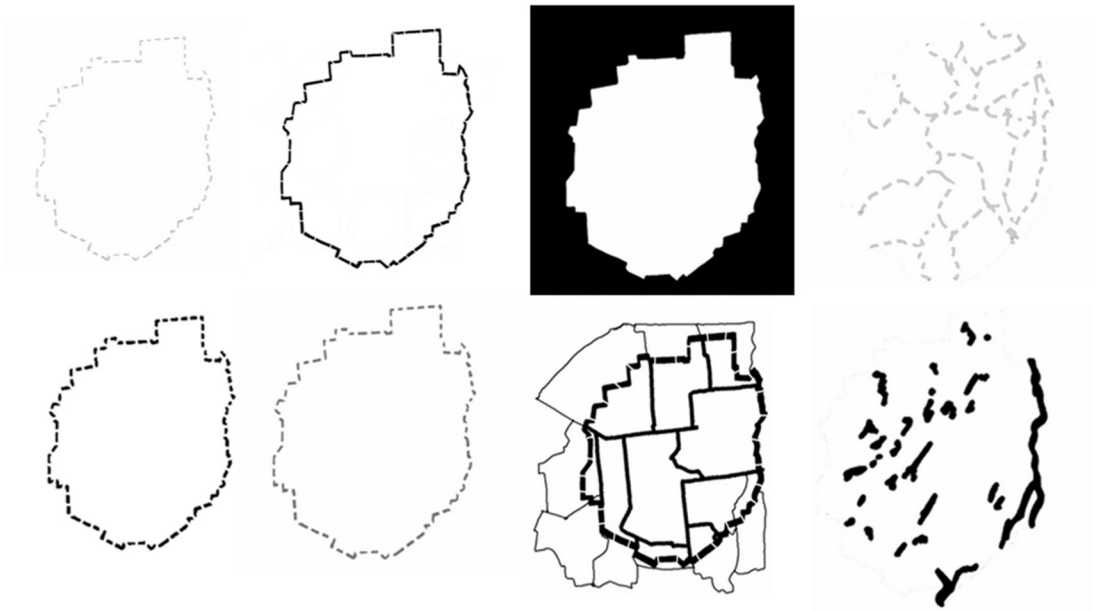
This series of maps explores this range of perspectives through contrasting understandings of ADK borders. Comparing four groups of stakeholders—tourists, residents, agencies, and animals—demonstrates the diversity of experiences that boundaries pose, and the range of factors that influences human, agency, and animal behavior in the region.

The mapping project challenges conventional cartographic perspectives, both through its exploration of the non-human, and through its focus on experiences, margins, and situated knowledge.









How to Read this Map

The following pages present a series of maps, each representing the experiences of a different stakeholder category of boundaries in the ADKs. The maps track three main variables: awareness, porosity, and contrast. The maps also take some unique forms as they portray unconventional, more-than-human perspectives.

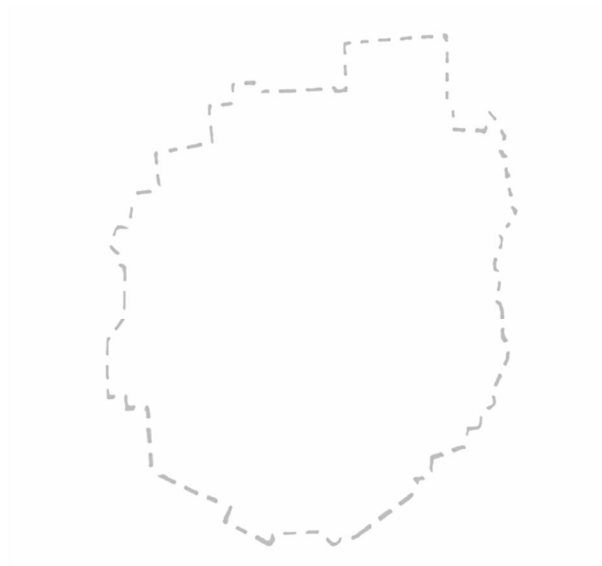
Contrasting Border Experiences of More-than-Human Stakeholders



Border Key

Color Value: Perception of border by subject	Clear: Boundary not perceived	Gray: Aware of boundary	Black: Actively concerned with boundary
			
Solidity: Permeability of border by subject	Dashed: Boundary easily permeable	Semi-Dashed: Boundary partially permeable	Solid: Boundary not permeable
			
Line Weight: Intensity of contrast experienced at border by subject	Thin Line: Border has minimal impact	Medium Line: Border has some impact	Thick Line: Border has great impact
			

In-Park Tourists



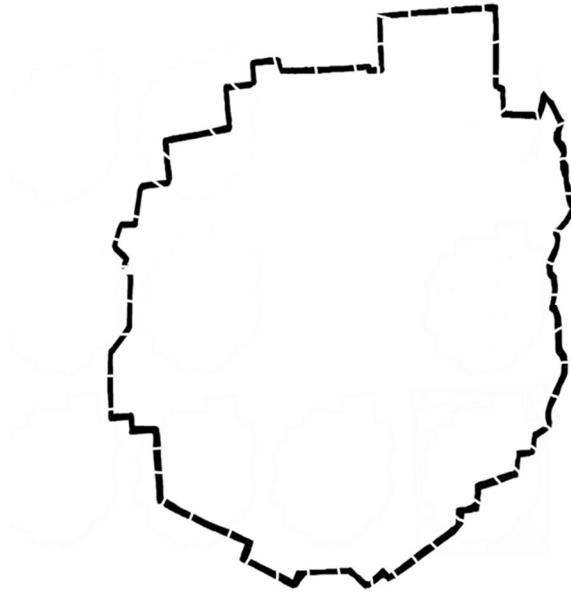
In-park tourists are aware of the ADK boundary and easily able to permeate it but are minimally concerned with it as they are not typically crossing out of the park for recreation. They experience some contrast at the boundary, facing different sets of recreation conditions, but nothing too drastic.

Out-of-Park Tourists



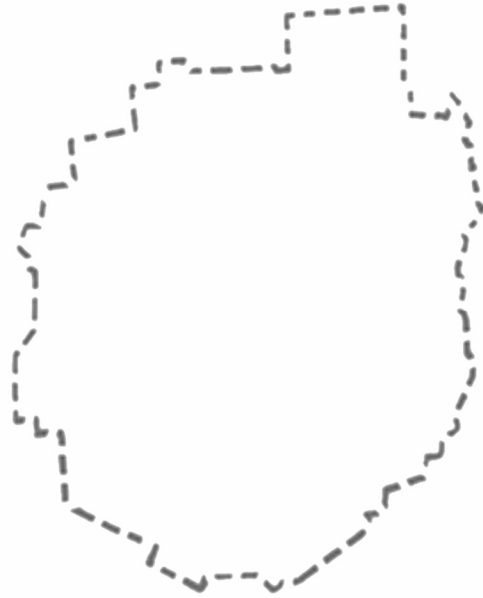
Out-of-park tourists are hyper aware of the parks boundaries, as crossing into the ADKs is a primary goal of these visitors. The border is highly permeable, and presents significant difference for these tourists, who seek the contrast the park presents.

In-Park Residents



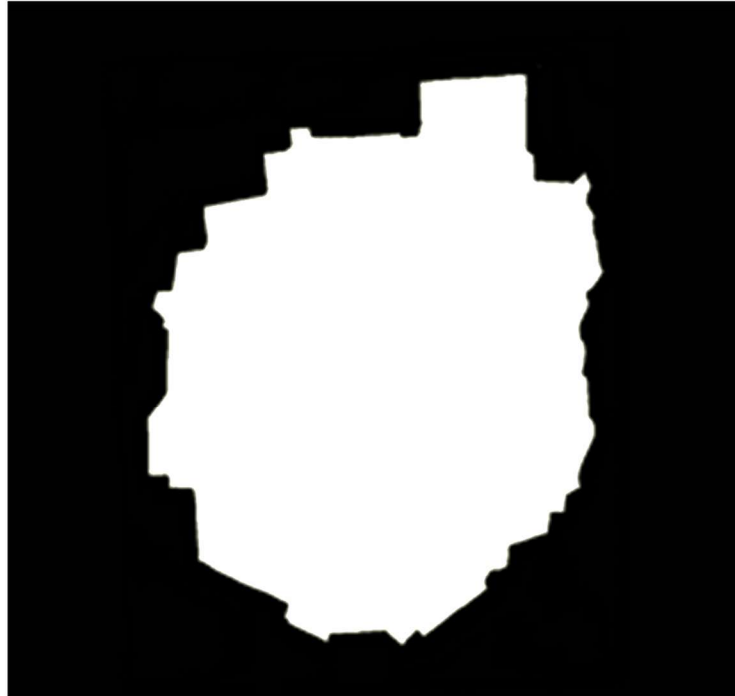
In-park residents are very aware of the park border, and it presents high contrast to this category, placing strict limits and regulations on the behavior of property owners in the ADKs. The border is permeable to a certain degree, but a solid obstacle in other situations.

Out-of-Park Residents



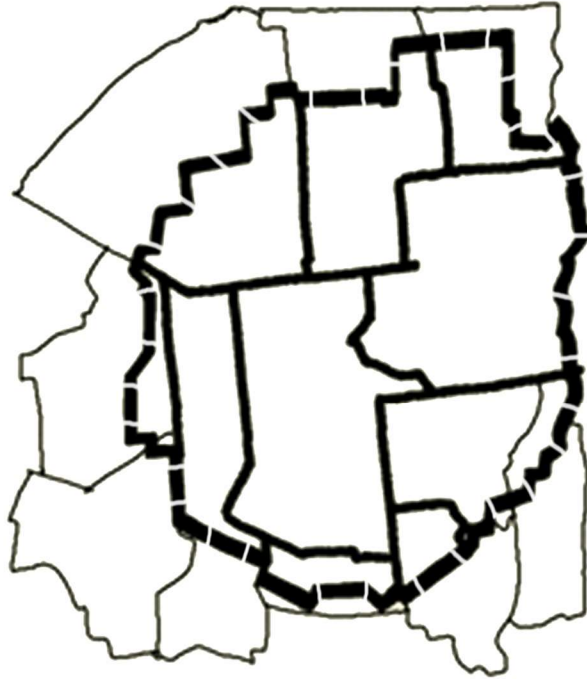
Out-of-park residents, aka, the vast majority of people, have a minimal relationship with the ADK border. They may be aware of it, but it presents little contrast, little import, and no real obstacle, should they choose to cross.

The Adirondack Park Agency



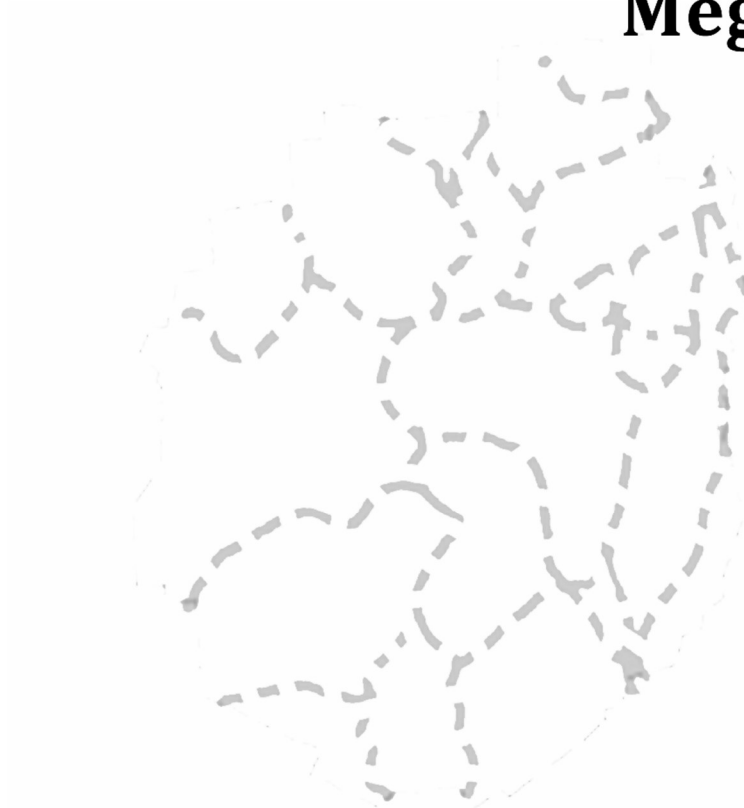
The Adirondack Park Agency (APA) has jurisdiction throughout the entire park, and is very aware that it cannot operate outside these boundaries. The border is a solid, impermeable boundary that the APA exists within, and there is no external existence for this agency.

County Level Governments



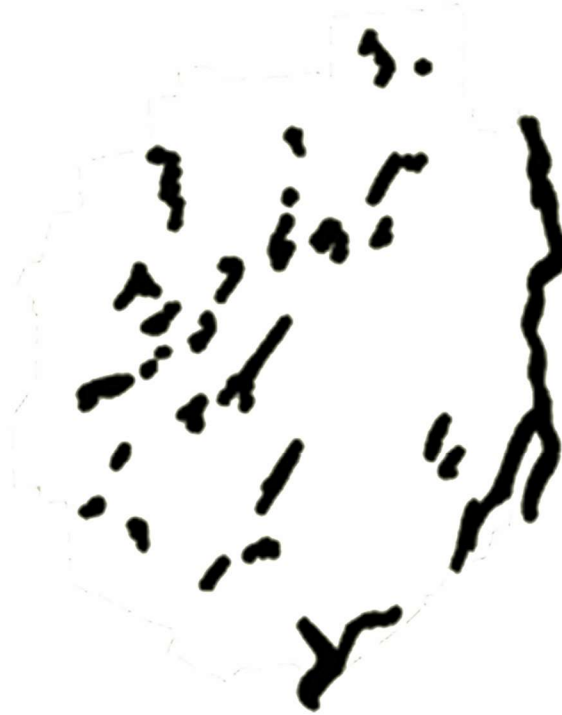
County level governments are aware of and experience intense contrast at the ADK border, and are able to work across it in some capacities. The split status of these local governments is unique, as they operate both within and outside the ADK boundary.

Mammalian Megafauna



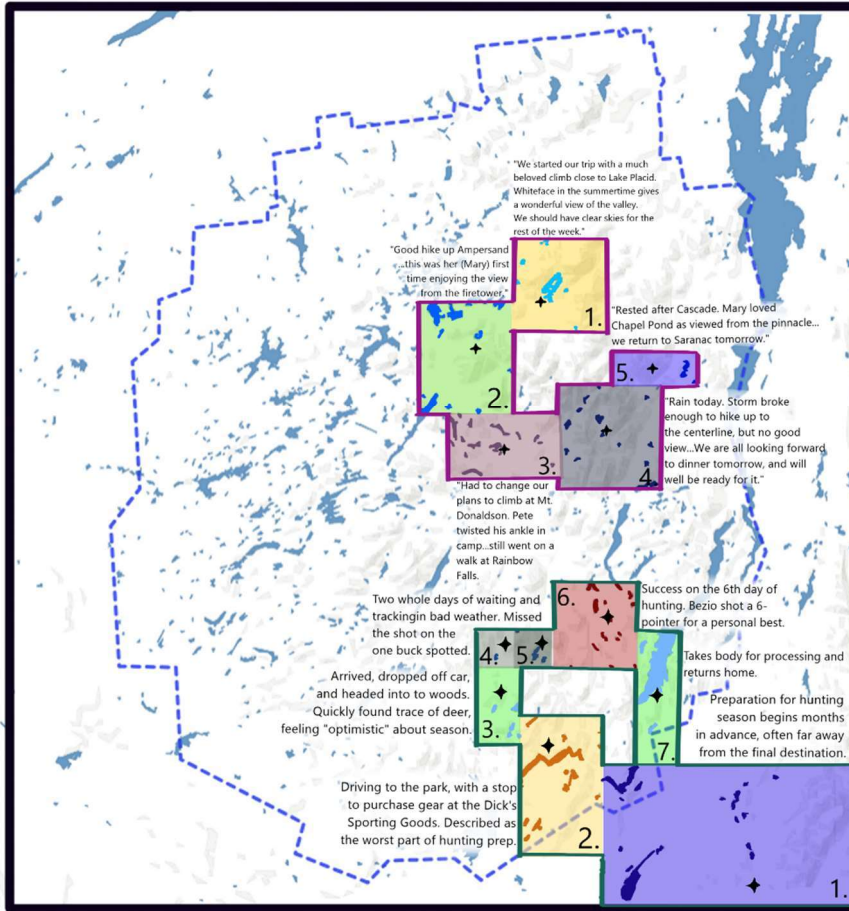
Large mammals are not aware of the ADK boundary, cross it with no issue, and do not experience much contrast on either side. Inside the park, megafauna are aware of major roads, and these paths frequently serve as sites of multispecies conflict as animals seek to cross them.

Aquatic Life



Aquatic life gets a unique experience in the ADKs. These creatures are neither aware nor heavily influenced by the parks official border, but are confined instead by the regions waterways. Thus, the boundaries that confine them look very different than for terrestrial groups.

Mapping Linear Travel: Hiking and Hunting in the North Country



How to Read This Map

This map illustrates two different journeys across several days of travel throughout the ADKs. Boxes are numbered and capture one day of movement. The colors represent the emotive experience (aka, the vibes) of that particular day. Black crosses represents the approximate locations of overnights

Journey 1:

The LeBeau Family

The LeBeau family was an upper-class family from NYC who documented their many travels to US parks during the 1950s. They regularly vacationed in the ADKs, taking frequent days-long hiking and climbing trips in the high peaks. Thomas LeBeau was the primary photographer and travel journalist, taking many pictures of his wife Mary, older brother Pete, and their father--identified only as Pa. This map represents one trip in the summer of 1954.

Journey 2:

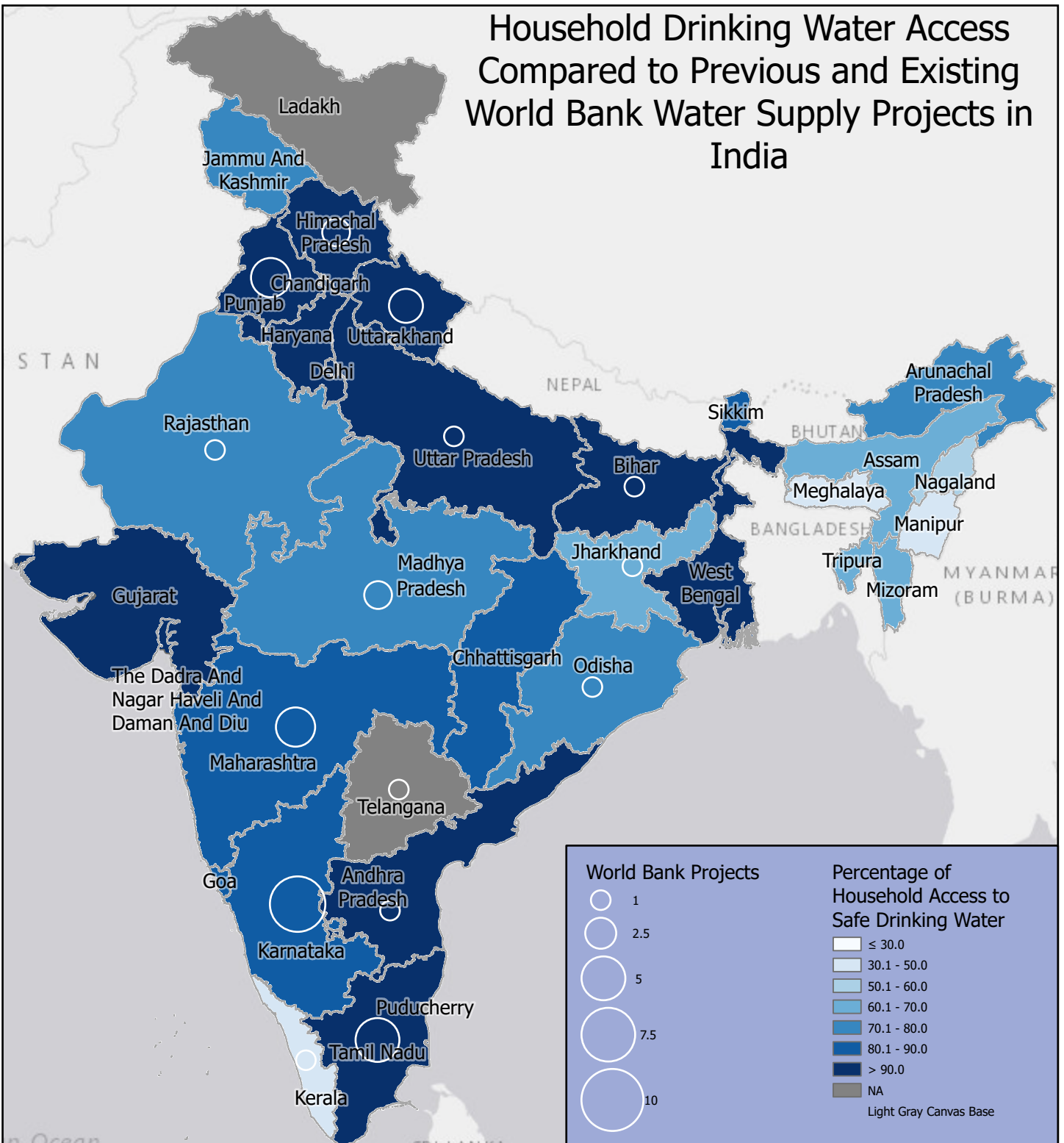
Tiffany Bezio

Tiffany Bezio's journey is much more recent, as she represents a newer genre of ADK tourist. As a young female hunter, Bezio is a non-traditional ADK tourist. She lives in southern VT, and travels to the region for buck-hunting season in the Fall. This map shows one such trip from 2019, where Bezio travelled into the park for a 5-day hunting outing. Over this trip, she underwent significant preparation, stopping at stores and hunting clubs on her way in and out of the woods.

Brooklyn Montgomery

The collection of maps in this section includes three mapping projects I completed in GEO 678: Spatial Storytelling. Each map presents a different perspective on water access and related water issues in India. The first two maps are extensions of my research on water access in India, examining it as an issue of human rights, development, political discourse, and community engagement. The third map represents the fluid nature of water, which makes international cooperation over access both difficult and critical. Each map contains notes of political and economic perspectives of water access, but also encourages viewers to hold these themes in tension with the reality of water as a necessary part of human, plant, and animal existence. The full collection of maps can be found on my website at: [\[author website\]](#)

Household Drinking Water Access Compared to Previous and Existing World Bank Water Supply Projects in India



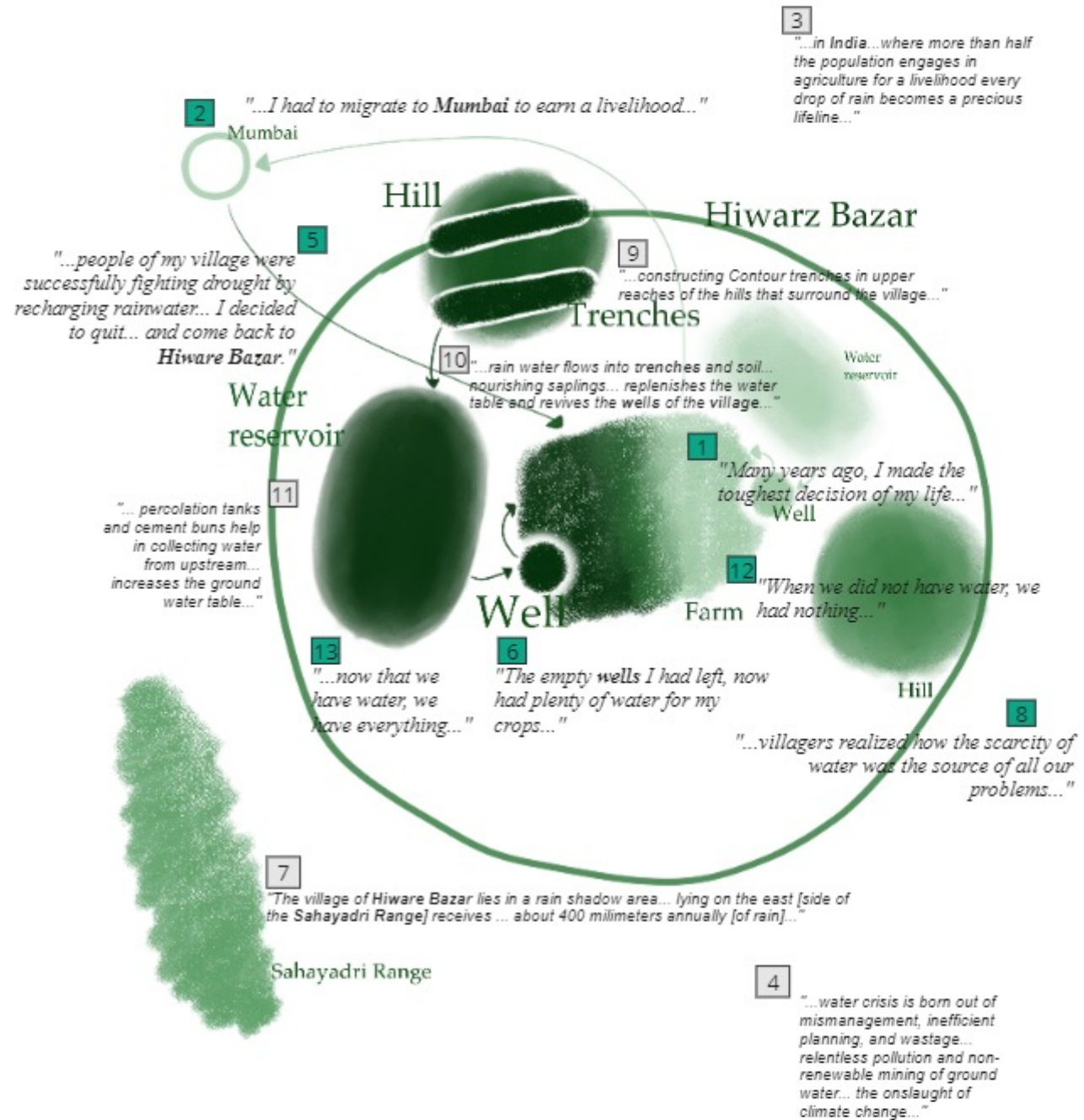
Description: This map depicts the percentage of household access to safe drinking water by state in India and the number of World Bank drinking water projects by state. It gives a preliminary glimpse into the difference of safe drinking water access between states and how the presence of World Bank projects related to this issue do not necessarily mean an increase in the percentage of access.

However, it also demonstrates a lack of knowledge about related factors such as what other projects are occurring in states with high water percentages and how might project type, age, and location in the state factor into percentage of access.

Data disclaimer: Percentage of Household Access to Safe Drinking Water is based on 2011 census information released by the Census of India. World Bank Projects reflect the number of active or completed projects related to drinking water access.

"The Miracle Water Village"

This map follows the story of Hiwarz Bazar a village in Maharashtra, India. It illuminates the experience of water scarcity and abundance of villagers as shared by the video "The Miracle Water Village" created by Kent Lawrence (2013) with the Permaculture Research Institute. The map follows the narration of local villagers depicted by quotes with green corresponding numbers and the narration of an external individual with gray corresponding numbers. It starts with the story of villagers forced to leave Hiwarz Bazar to make a living in Mumbai due to increased drought and loss of crop yields. It then illuminates the floating and seemingly external narratives built around water mismanagement and the compounding role of regional geographic features in the region's rain water values. It then follows the village's experience building a community water catchment project using the local geographic features and trenches to capture rain water and replenish aquifers for irrigation and wells. This story represents just one town's experience with water scarcity and how a community led water management project assisted with bringing livelihoods and agriculture back to the town.



Border Tension:
The fight for water rights under the
Indus Waters Treaty of 1960

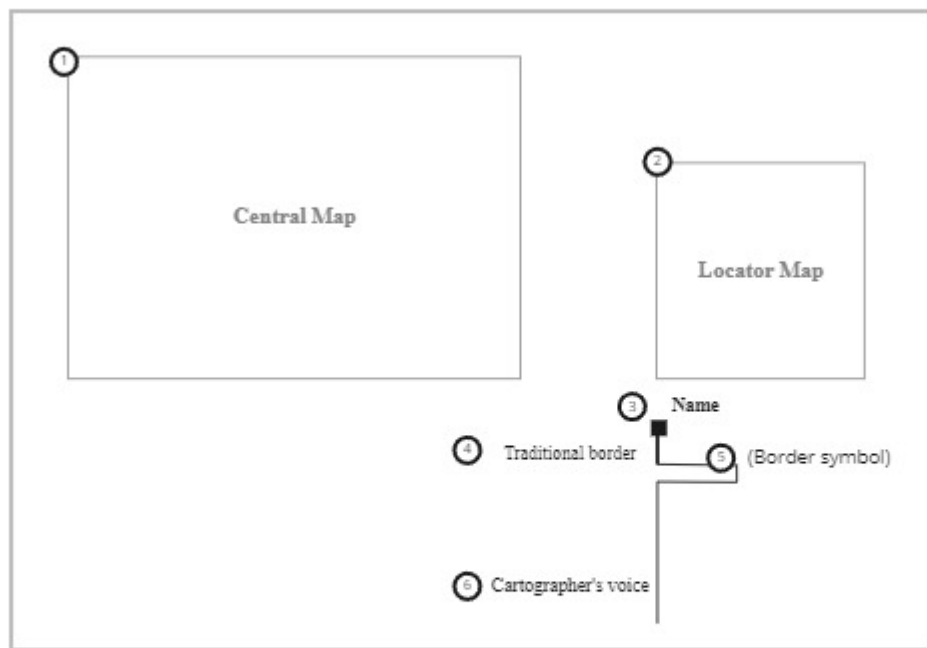
By
Brooklyn Montgomery

Introduction

The Indus River Valley system runs down from the northern regions of India and through much of Pakistan providing water to millions of people across the centuries. While its many tributaries carry vital water to communities, it also creates tension and conflict as it flows across seemingly invisible political borders.

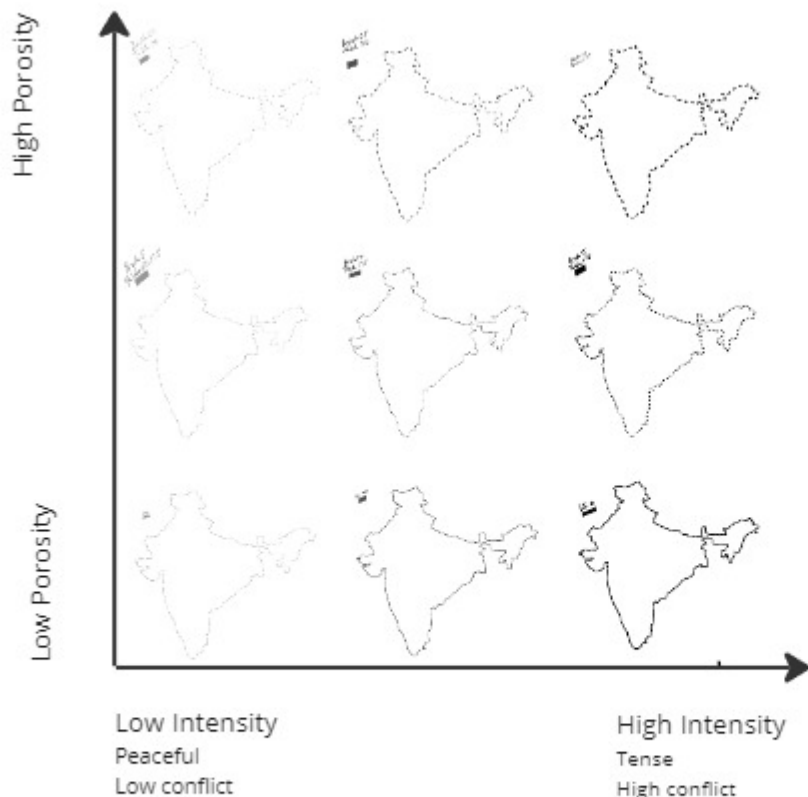
In an effort to diffuse mounting conflict between Pakistan and India, the World Bank facilitated the negotiation and signing of the Indus Waters Treaty in 1960. This treaty would divide water rights to six major rivers flowing across the Indian-Pakistan border - it gave primary rights to Pakistan over the Indus, Jhelum, and Chenab (The Western) rivers and India rights to the Ravi, Beas, and Sutlej (The Eastern) rivers. It is upheld by the World Bank and many international actors one of the most successful international treaties in history.

Despite views internationally, border tension between Pakistan and India remains as water continues or is prevented from flowing across this political border. The following maps are broken into two series. The first series depicts border tension over the flow of the Indus, Jhelum, and Chenab rivers and the view the World Bank, India, and Pakistan hold related to the porosity and tension around river flows. The second series depicts the same actors views of porosity and tension related to the flow of the Ravi, Beas, and Sutlej rivers. These series of border maps highlight the varied views and experiences by international actors over borders and the role they play in river water access.



The Techniques Layout

The central map (1) is the primary map of the layout and depicts the border being experienced. The locator map (2) gives reference to location in the style of a conventional map. Below this, is the actor (3) experiencing the border, and the border name (4). The border symbol is then represented (5), and my own voice as the cartographer provides context (6) to the map.

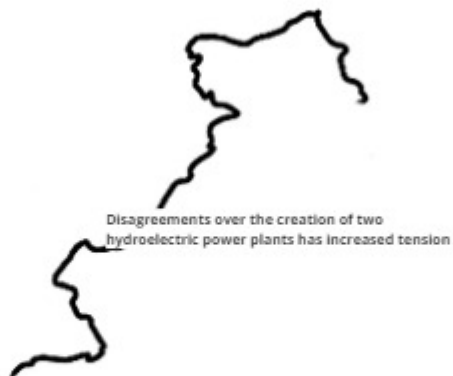


The Techniques Border Symbolization

The border of the central map on each page represents the perspective of that border by the actor. To determine how experience of the border is represented I use bivariate line symbolization scheme developed by (Kelly 2019).

On the x axis porosity represents how the actor perceives flow of the rivers water. Low porosity indicates they feel water is not able to move freely down stream across the border and is hindered by other processes.

High porosity indicates the impression that water is able to flow freely down stream without intervention. On the y axis, intensity represents the actors view of conflict over water flowing across the border. Low intensity indicates there is next to no conflict or tension between actors over the flow of water. High intensity indicates there is significant amounts of tension between actors over the flow of water.



The Techniques Experiential Label

Each border depicted in the central maps include a brief quote pulled from source articles discussing the Indus Waters Treaty. They provide context of the narratives created and shared related to the experience of river flows of the six rivers included in the Treaty.

Series 1

The Experience of the Indus,
Jhelum and Chenab Rivers

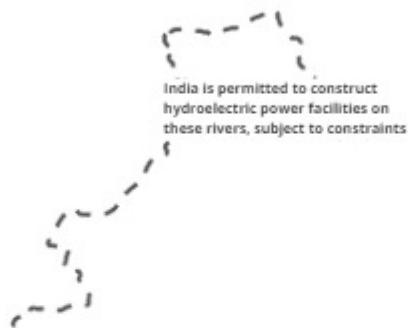
has provided a framework for irrigation and hydropower development for more than half a century



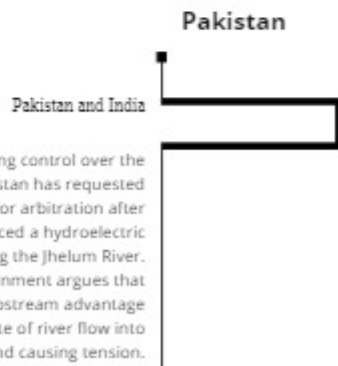
World Bank

Pakistan and India

The World Bank considers the Indus Waters Treaty signed in 1960 as one of the most successful international treaties bringing peace between India and Pakistan. It frequently positions itself as a neutral arbitrator over any disagreements brought forth over the flow and dam construction along the Western Rivers.



The Indus Waters Treaty grants Pakistan control of the Western Rivers Indus, Jhelum, Chenab (shown above) Limiting India's ability to build dams and pull water from the river. This has caused tension over sovereign right to water within India's borders as it continues to flow out..



Series 2

The Experience of the Ravi,
Beas, and Sutlej Rivers

Numerous disputes were peacefully settled over the years



World Bank

Pakistan and India

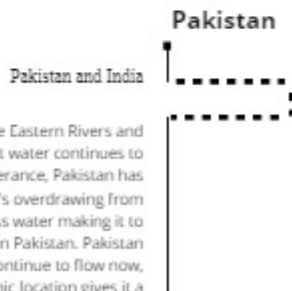
While the Treaty does not grant the World Bank authority over treaty mechanisms, the World Bank has frequently assisted in fulfilling procedural obligations as a Court Arbitrator and neutral expert. The World Bank maintains it has worked diligently with Pakistan and India to ensure all negotiations and complaints are resolved in a way that both countries find mutually acceptable.

There remains 5.6 billion m³ of water flowing into Pakistan unused by India




The Treaty grants India control over the Eastern Rivers (the Ravi, Beas, and Sutlej rivers) allowing India to build dams, canals, and pull water from these rivers. Arguments raised by Pakistan point to an overdraw and dwindling amount of water making it through the border. India, however, maintains that plenty of water is still making it across the border to Pakistan leading to tension over flow rates and overdraw from the rivers.

India is building three projects to utilize the full share of the Eastern Rivers



Despite not having control of the Eastern Rivers and India's continued narrative that water continues to flow without substantial hinderance, Pakistan has continually raised issue with India's overdrawng from the rivers leading to less and less water making it to communities down stream in Pakistan. Pakistan argues that while water may continue to flow now, India's upstream geographic location gives it a significant advantage to pull as much water as it would like -limiting flow rates down stream and hurting communities in Pakistan.

Zuleima Vázquez-Carrillo

This collection engages in various mapping techniques to illustrate the possibilities of Urban Agriculture in Puerto Rico, contributing to a vision of cultivating food sovereignty and social justice. Each of the maps tells stories from various locations and perspectives, showcasing the struggles of Puerto Rico's import-dependent food system and colonial status while imagining alternative geographies of possibility. The first map is a collage of news articles and images that contextualize agriculture in Puerto Rico, highlighting how young Puerto Ricans craft social spatial visions through their agrarian practices. The second maps the vision of an agroecological farmer who imagines an agroecological mosaic in Puerto Rico that stretches from the urban to the rural areas. The third map draws from my own gardening story and the experience of garden borders that are challenged and disrupted to create solidarity.

HUERTOS EN CADA ESQUINA:

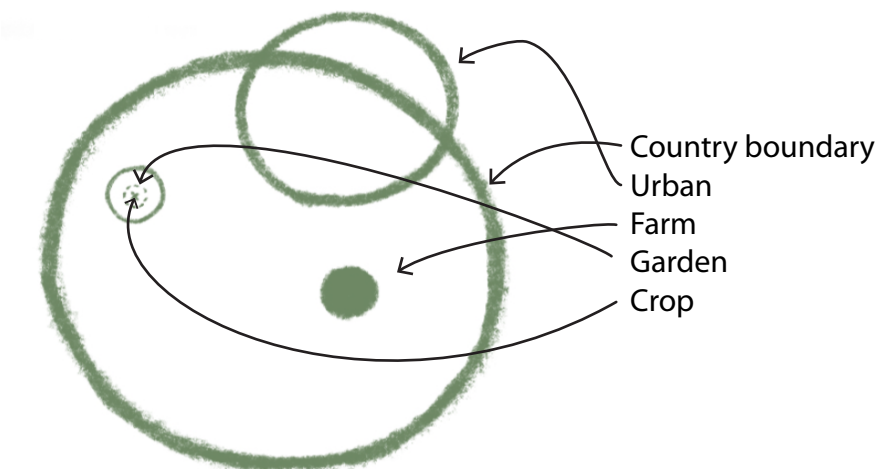
Imaginando un mosaico agroecológico en Puerto Rico

GARDENS IN EVERY CORNER:

imagining an agroecological mosaic in Puerto Rico

This map presents the spatial references and imagined futures shared in an interview with Suley, a Puerto Rican agroecological Farmer committed to fighting for food sovereignty and through this a decolonial Puerto Rico (Borinquen). Suley takes us on a spatial journey where she explores the pressing problems of Puerto Rico's food system and how she envisions Urban Agriculture as one of the viable community responses to the path towards food sovereignty. As you follow the sequential numbers, you will find quotes from the interview that speak to the map's representation. The different circles located throughout the map are used to represent country boundaries, city areas, known locations and locations based on the topological relationship to other places, see the legend below for further details. The dashed circles represent gardens that are not physically established but showcases the idea of 'gardens should be everywhere' portrayed by Suley.

- Place mentioned one time (25% opacity)
- Place mentioned two times (50% opacity)
- Place mentioned over three times (50% opacity)



EVERYWHERE

la ciudad
(the city)

...participamos en el Mercado Orgánico de la placita Roosevelt ...allí se reúnen diversidad de de agricultores de diferentes partes de Puerto Rico y traen de los campos a la ciudad productos agrícolas ecológicos...

...de igual forma en pequeños núcleos, pequeños mosaicos de huerto urbano a través de toda la urbe ...nosotros siempre decimos desde los campos a las ciudades un mosaico agroecológico es lo que buscamos ver, ese es nuestro sueño.

... porque realmente la gente en la ciudad depende de la gente de los campos para poder alimentarse...

[por eso] la Agricultura Urbana...yo la veo como un oasis dentro de un desierto alimenticio...y por eso es que para mí los huertos urbanos deberían estar en cada lote sin vivienda o cada parque...los parques deberían ser parques de comida.

...debería ser como un huerto urbano, un huerto comunitario que responda a cada bloque...cada cinco casas por decirlo así...

...el poder tener ese despertar y hacer un huerto en tu casa... en una pared que nadie pensó que iba acrecer comida...es un acto de fe, es un acto revolucionario...

...dentro de las mismas escuelas... en cada espacio baldío... en la ciudad se debería construir un huerto comunitario...

...[tambien] agradar los suelos urbanos porque naturalmente muchas veces los suelos urbanos están maltratados...entonces integrar en el sistema urbano el recogido de de composta, de producción de composta interno a cada huerto...

...aquí tenemos 5 cuerdas en producción intensiva de variedad de hortalizas y farináceos dependiendo de la época del año...tenemos 32 familias que alimentamos semanalmente y buscamos entregar lo más cerca posible de la finca...

Borinquen (Puerto Rico)

CARIBBEAN SEA

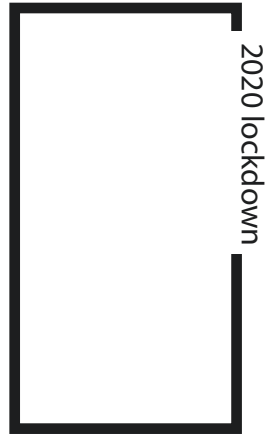
limited contact
with neighbors



■ **Zuleima**

Guaynabo, Puerto Rico

I lived the typical suburban life, we had little to no relationship with our neighbors, and that felt normal.



2020 lockdown

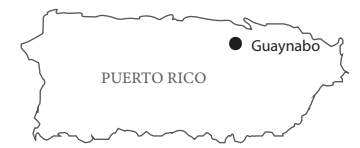


■ **Zuleima**

Guaynabo, Puerto Rico

Lockdown began. I was stuck between the four walls of my home. Everything around me felt uncertain... it was anxiety inducing.

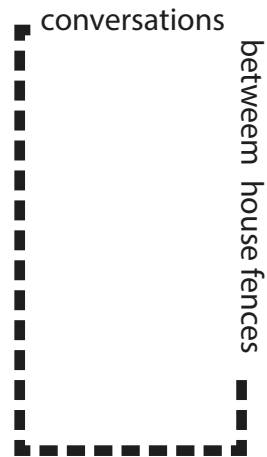
learning how to
garden in the backyard



Urban garden,
Guaynabo, Puerto Rico

■ **Zuleima**

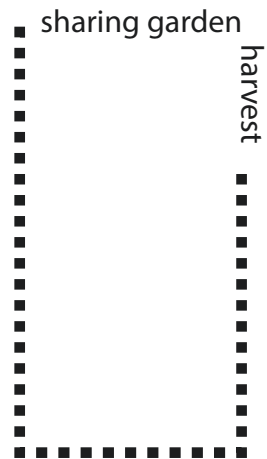
Out of boredom and curiosity I began experiment with gardening for the first time. I quickly became passionate about growing food, my garden felt like an oasis and a refuge from the outside world.



Zuleima

Uban garden
Guaynabo, Puerto Rico

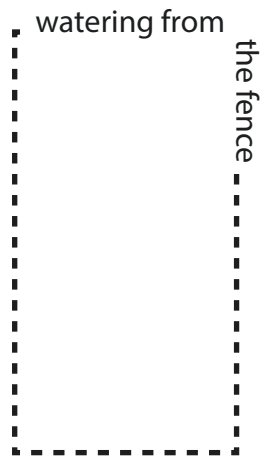
I located my garden next to the fence between our house and my neighbors, it was the only non-concrete area available. My neighbor began striking up conversations with me whenever I was weeding in the garden. She expressed being smitten by all the food growing in my garden. This quickly became a regular happening.



Uban garden
Guaynabo, Puerto Rico

■ **Zuleima**

Taking advantage of the fence I planted sweet cherry tomatoes. These grew all over the fence, with multiple clusters on her side. She would call the tomatoes 'ungrateful' for their growing patterns, I always encouraged her to take some for herself. I also shared other crops and hand them to her between the gaps of the fence.



■ **Zuleima**
Uban garden
Guaynabo, Puerto Rico

Whenever my family and I left town, I would ask her to keep an eye on my garden. On multiple occasions she offered to water the crops from her side of the fence with a hose, which helped my garden not wilt while I was gone because of the heat.

new sense of
community



■ **Zuleima**
Uban garden
Guaynabo, Puerto Rico

My family and I started developing a relationship with our neighbor beyond the garden, we had a sense of community that was missing before.



Puerto Rico was one of the first places colonized by the Spanish, who for four centuries exploited the island's natural resources through the violent displacement of indigenous people and forced migration of enslaved Africans - until the Americans seized it in 1898.



“Hay que tener voluntad para aguantar”



Before Maria hit, Puerto Rico imported approximately 85 percent of its food from abroad, mostly from the mainland U.S., because of colonial policy.



Una isla que solo produce el 20% de lo que come: el gran problema de Puerto Rico con los alimentos



‘An act of rebellion’: the young farmers revolutionizing Puerto Rico’s agriculture



In the face of so many challenges, a new wave of interest in food and farming among younger Puerto Ricans is flourishing, as part of a wider movement demanding political, environmental and social justice.

Calissa Brown

According to Westerveld and Knowles (2021), topographic map principles are represented through circles, allowing places—or entire maps—to be “scaled and rotated indefinitely without losing or distorting the underlying topological relations or structure” (p. 2115). This approach enables storytellers to use “creative or art-informed approaches to geographic inquiry” (Lally, 2022, p. 1). Using this method, I created a map to depict the story of the Zong Massacre, a tragic event in 1781 when the British slave ship Zong, during its voyage from Africa to the Americas, threw enslaved Africans overboard to claim insurance money during a water shortage. This atrocity highlights the brutality and dehumanization of the transatlantic slave trade and continues to provoke reflection on the economic, legal, and moral legacies of slavery, racism, and colonialism. The ship, as a symbol, bears no innocence. As I reflected further, I began to question how this mapping technique can be used to tell stories when no one is alive to recount them—especially when the only data that remains comes from the perpetrators. How can a mapping method designed to honor Holocaust survivor testimonies carry the same weight when applied to a Holocaust of Black people—one that is often forgotten, dismissed, or met with calls to simply “move on”? This raises urgent questions about whose stories are preserved, how they are told, and who has the authority to depict them. In this context, mapping becomes not only a storytelling tool but also a mirror of historical power, memory, and erasure.

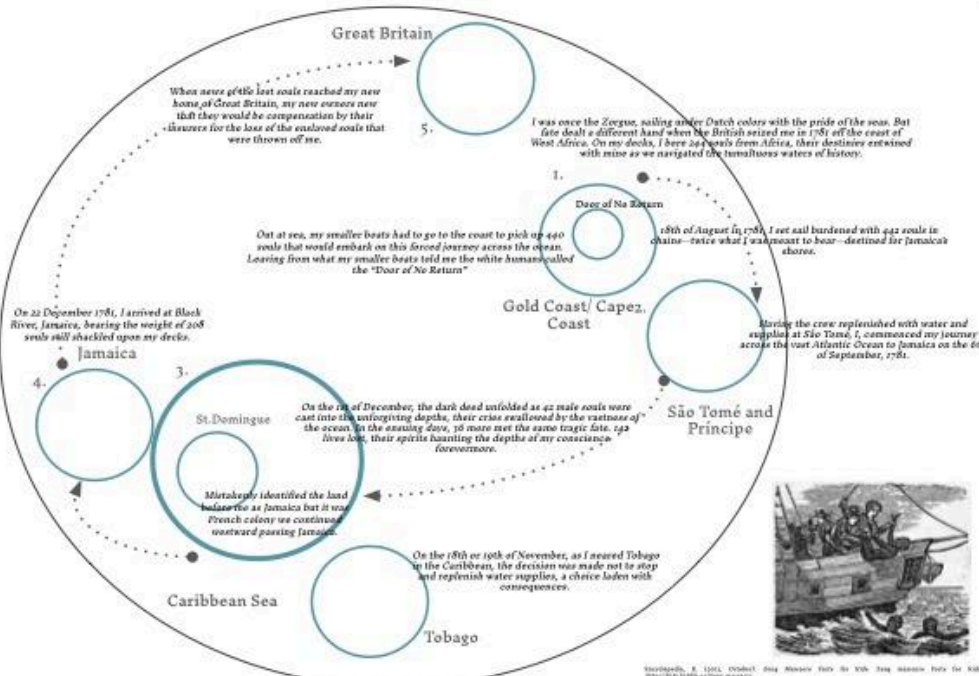


Illustration: A 1781, October. The Zongue ship by the N.M. The Zongue ship by the N.M. The Zongue ship by the N.M.

Echoes of the Abyss

How to read this map

This map shows the places that the Zongue ship travelled during its voyage in 1781. This map is told through the viewpoint of the Zongue ship. It is told through this viewpoint because it does not give enslavers and members of the crew power in the story that happened to the enslaved peoples that were murdered. You can follow the sequence of the map by the numbers from right to left. The larger circles are in close to actual location. While the smaller circles are within that area. The legend explains the colors and arrows.

Why was the map made and what does it say

This map tells a forgotten story of a massacre were enslaved persons were only valuable as an insurance claim. I hope the text gives a glimpse of what happened aboard the Zongue. The coordinates are not exact but are an estimate of where each place would be. In addition the outer circle represents the ocean that connects all the circles at one point. In this way the map is a cartographic exploration of the spatiality of the Zongue Massacre from the ships point of view. The written passages found on the map either depict the characteristics of a location or recount an event that rendered it noteworthy to the speaker.

Zongue

Calissa Brown

The story of this braid map contributes to the larger narrative of this project, which is rebellion, captivity, and sovereignty. The braid map story is a story of rebellion and defiance by mapping out freedom, using the tools they had (their hair, in my case, my hair). In addition, the process of doing Black hair is also a community-oriented activity. This map is a community map that maps community memory, and the hair maps come from ancestral memory. Alderman & Inwood (2023) correlate with Hunter & Robinson's (2018) statement by articulating that Black people have always been integral to global history and geography, affirming their rightful place and significance. DuBois deployed the western methods of cartography that had been used to marginalize and exploit Black life[...]The series [of illustrations] launched a powerful counter-argument, stating that blacks had always been part of world history and geography and thus legitimately belonged and mattered (Alderman & Inwood, 2023, p. 3).

