

**Environmental  
Design at a  
Distance:**  
*A Youth-Centered  
Approach to  
Participatory Design*

**Roya Chagnon  
Andres Gonzalez**  
*Fall 2020*

# TABLE OF CONTENTS

---

Introduction .....	3
How to Use this Guide.....	5
Materials.....	7
Digital Options.....	9
Curriculum Part 1: Stewardship.....	12
Mental Mapping	
Stewardship Mapping	
Oral History Timelines	
Theory of Change	
Curriculum Part 2: Environmental Design & Planning.....	30
Environmental Comfort	
Plants and Places	
Mobility and Access	
Design Intervention	
Curriculum Part 3: Advocacy & Site Activation.....	46
Planning Zine	
Final Vision	
Appendix.....	54
A. Interviews	
B. Additional Resources	
C. Theory of Change Worksheet	
D. Power Grid Worksheet	
E. Endnotes	

# ACKNOWLEDGEMENTS

---

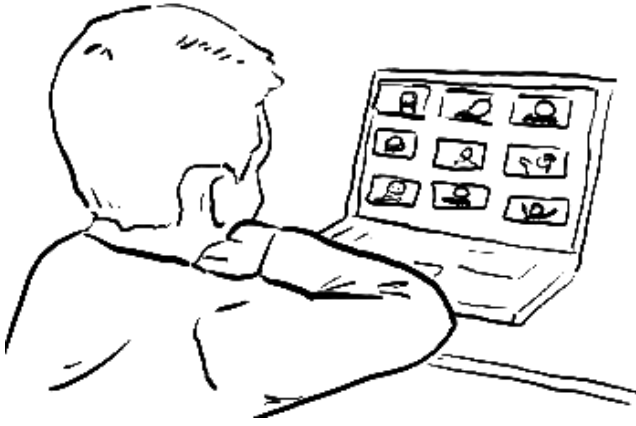
As students at UCLA, a land grant institution, we acknowledge the Gabrielino/Tongva peoples as the traditional land caretakers of Tovaangar. Furthermore, we recognize the limits of a written acknowledgment's ability to fully encapsulate the lived histories of the original stewards and caretakers of this land. We hope this project can further inform designers and planners on environmental histories and stewardship, and connect communities to the work carried out by local indigenous communities and activists.

We would also like to acknowledge the following participants whose interviews were key to helping define the scope of our project and expand our understanding of remote co-design and co-learning spaces. Many thanks and many blessings to Annie Mendoza, Nana Boateng, Sandy Campbell, Maddie Ruvolo, Fielding Hong, Kristy Higaes, Amanda Hinton, and Zully Juarez.

We also thank the Urban Humanities Initiative and the Latin America Institute at UCLA for funding and support. Without them we would not have had the opportunity to dedicate time and resources to this project. And finally, many thanks to the Kounkuey Design Initiative, whose feedback on this project helped guide us at key nexus points in our development process.

# INTRODUCTION

---



The urgency of solving our planet's climate crisis has grown with each passing year, especially for youth, whose lives will be the most dramatically shaped by efforts to curb climate change and the consequences that will ensue otherwise. As climate change, racial inequity, and environmental justice rise to the forefront of national conversations, today's youth are perhaps more aware than ever before of the layered, intersecting issues facing their communities.

Various practitioners and scholars in the urban planning field have recently made efforts to directly engage youth in their decision-making and design practices. Too often, decisions are made that affect generations to come—but engagement is focused on those who have the literacy and privilege to participate. We recognize the creative power youth have, and the importance of exposing youth to planning and design processes to foster community ownership. By including youth in these processes, planners and designers can make more informed, equitable decisions, and can help break cycles of inequity by empowering youth (especially youth of color) to participate in the decisions being made in their community.

During the COVID-19 pandemic, planners have also been tasked with maintaining meaningful community connections so they

can continue their work. Youth have also been adjusting to school online, and the challenges of learning and socializing remotely. While the pandemic has been a challenge for everybody, especially for those communities that have been disenfranchised by past planning practices, we see an opportunity here to foster youth engagement in a more temporally and spatially flexible way.

In providing these tools and activities we recognize the unique power and voice of each community's story. This process was originally formulated around the context of the Kounkuey Design Initiative's planned work with youth groups in the Ballona Creek Wetlands area. While this guide was developed around the aim of improving a shared ecosystem, we focused on developing a process that is adaptable to various community contexts. We hope that these resources can inspire and help center the environmental design process on the lived experience of community members, and serve as a process that enables shared leadership through co-production of knowledge and environmental design.



# HOW TO USE THIS GUIDE

---

This guide can be used by educators, planners, designers, or community activists to engage youth in an environmental co-design project. The projects in this guide are tailored to a climate/environment-focused project, and are designed to highlight the experiences and needs of communities of color.

While each facilitator's positionality will be different, this toolkit is designed to work with youth participants. We do not assume a student to teacher relationship in this project. Rather, we strive for a co-production of knowledge and a co-leadership model in driving whatever the environmental design proposal is. The facilitator should make their role and its limits clear in order to enable a space of constructive growth with participants.

## SCALE AND BASE MAP

Since this curriculum is spatially oriented, facilitators should first determine a geographic scale and extents to work with. This will depend on the type of project, the surrounding urban form, and the community members involved. For the Ballona Creek project, we envisioned working with youth at Mar Vista Gardens, a public housing development next to the creek. We centered the activities on a "base map" that included Mar Vista Gardens and a small radius of just under a mile, which was enough to include part of the creek, nearby commercial areas, parks, and schools.

Most of the activities in the curriculum will result in a new "layer" for each participant's map, which can also be combined into a collective map. This can be done physically or digitally, or in a combination of both; the following pages will describe options for these methods.

## ACCESSIBILITY AND ADAPTABILITY

We intend for this curriculum to be adaptable to different communities and different types of projects, and useful in virtual or in-person settings. Additionally, we aim for people of all ages and abilities to participate in these activities in some form; they are designed to be flexible and to utilize a variety of skill sets. While recognizing the limits of our knowledge of accessibility, we hope these activities can inspire conversations around greater accessibility in design processes for disabled communities.

The following icons denote certain characteristics about the nature of each activity in the curriculum.



**Tactile:** this activity is hands-on, and utilizes different textures and materials.



**Group Activity:** this activity can be conducted in a group, whether virtual or in-person, but can also be modified for individuals.



**Observational:** this activity involves environmental observation via sight, sound, or smell.



**Intergenerational:** this activity can be done with multiple generations of a family and/or community.



**Active:** this activity utilizes physical movement between locations.

# MATERIALS

---

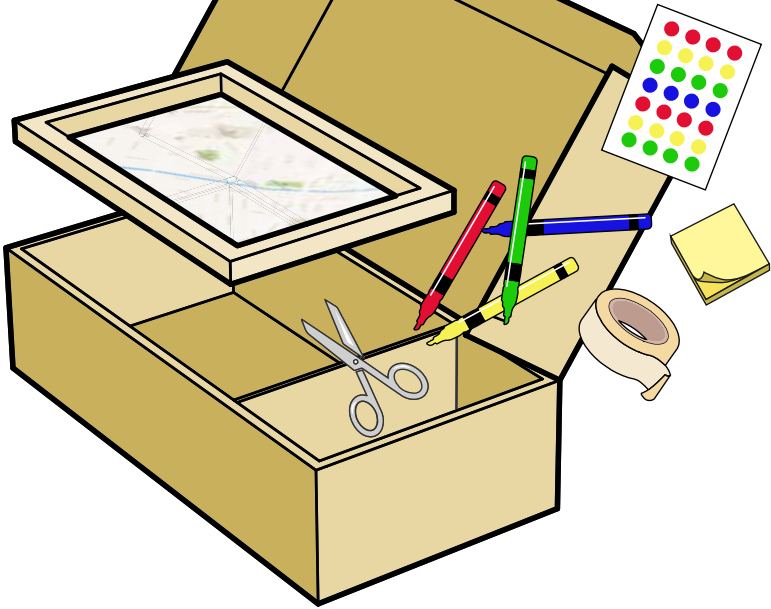
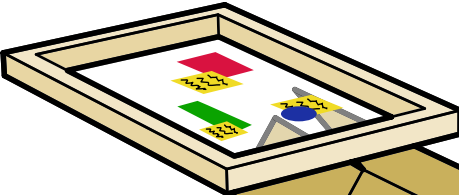
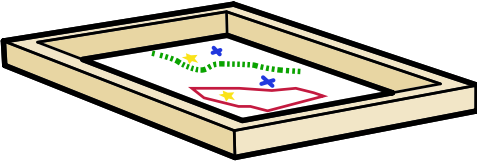
As this curriculum is designed to engage all the senses, most activities involve physical materials. Most of these materials can be found in a typical classroom or easily procured by a facilitator. In an ideal situation, and especially for remote use, we propose that each student will be equipped with a toolbox containing all the tools and print materials they will need for each activity. The spatial focus of this curriculum means that many activities involve mapping exercises that will contribute to a final “thick map”. Thus, our toolbox prototype includes a set of wooden frames (such as silkscreen frames) fitted with transparency sheets that stack to form a physical thick map. As participants complete each activity, they can add another layer to the map, and layers can be removed and shuffled to observe trends and intersections.

A thick map is described by the Urban Humanities Initiative as “Map-making [that] can be deconstructed and thought anew by bringing in elements of “thickness” that problematize single narratives, monocular perspectives, and totalizing claims. This is the deconstructive ambition of thick mapping” A thick map combines these ‘deconstructed layers’ and embeds community perspectives to overwrite traditional narratives of spatial and social geographies—providing methodology and space for community participants to center their own experiences.<sup>1</sup>

When constructing toolboxes or equipping a classroom for this curriculum, we recommend the following materials:

- paper and drawing utensils
- stickers and sticky notes in different colors
- scissors, glue, and tape
- polymer or modeling clay
- glitter, fabric, pipe cleaners, or other textured materials



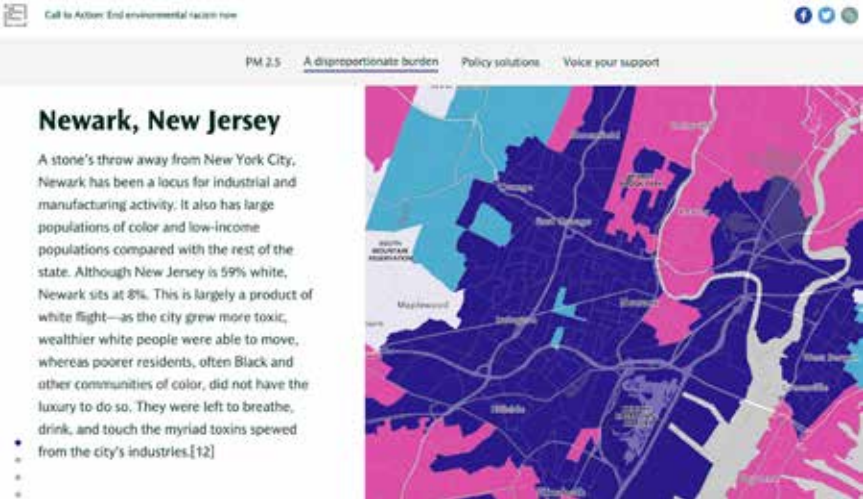


# DIGITAL OPTIONS

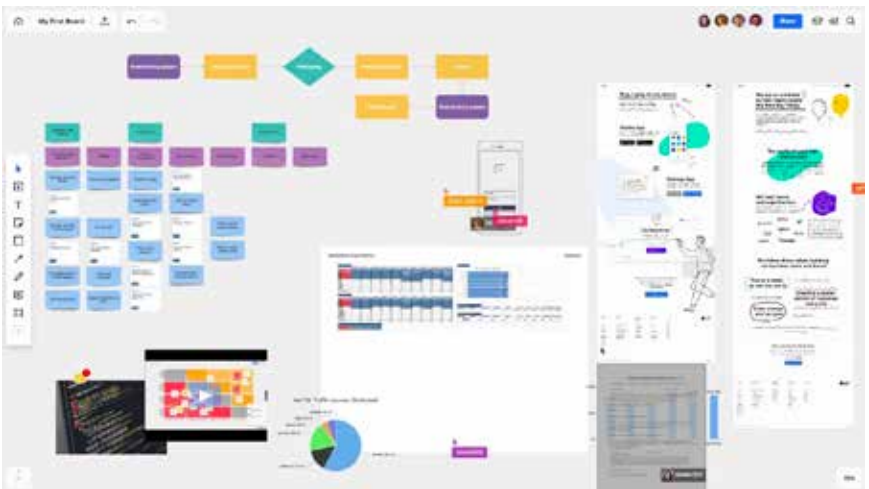
---

Throughout this curriculum, various applications are referenced that can best support remote learning. If working remotely, we recommend exploring the following tools.

- **Zoom:** basic group video chat platform with several features to enable group conversations. Demo version limits meeting times.
- **Adobe Creative Cloud:** the Adobe Suite, especially Photoshop, Illustrator, and InDesign, provides useful tools to consolidate designs or develop learning visuals. These activities could also be an opportunity for participants to learn the software themselves.
- **ArcMap/ArcPro:** common mapping software useful for bringing in various layers of data. Useful for making quick maps, or bringing in data points from participants.
- **ArcGIS Storymaps:** storytelling and presentation application that is useful for bringing in various media to develop a common narrative.
- **Kobo Toolbox:** open-source survey software that allows for data collection and GPS storage.
- **Mural:** a common brainstorming tool for working and drawing basic shapes on a shared document. Useful for group activities.
- **Miro:** similar to Mural, a digital whiteboard for collaboration with various forms of media.
- **Google Maps:** basic mapping application. The My Maps features allows a quick and editable map function for various participants to use and share, and Street View can help explore communities virtually.
- **Google Drive:** cloud storage platform. Provides free storage space and the ability to share and collaborate on documents in real time.



An example of StoryMaps in use<sup>2</sup>



An example of a Miro whiteboard.



# Curriculum Part 1: Stewardship

# MENTAL MAPPING

---



## Learning Objectives

1. Participants will identify elements and landmarks that represent their community
2. Participants can define the key components of a map through the collaboration of a community thick map
3. Participants will begin to identify histories of the community and the land

**Materials:** Transparent frame, drawing materials, glitter/clay (for tactile use), series of maps (printed or digital; including a local and regional map)

---

## PRE-FACILITATION

Create a common communication channel such as Slack, Whatsapp group, text message group, etc. that participants/partners can easily access.

Create a Google Drive to share and upload materials. Identify pre-facilitators with community members.

## MOTIVATION *20 minutes*

Ask all participants to introduce themselves. If the group is large and in a virtual video chat such as Zoom, the host can split groups into breakout rooms. Start with an icebreaker for participants: if a relative or friend was trying to get to your community, what is one landmark, or something unique to your community, that could help them find their way? Participants should also share their name, pronouns, and what brought them to this space today.

Alternatively, the facilitator can navigate through the

community via Google Maps Street View, and participants can point out landmarks.\*

*\*Please ask participants' permission to show address/home; the activity can also just focus on key landmarks that participants are comfortable sharing, it does not have to feature homes.*

## **INFORMATION** 20 minutes

Begin by asking participants “What are the components of a map?”<sup>3</sup> Youth might point out physical features, such as cardinal directions, borders, or topography. The facilitator can write them out on a list shared on screen or in the meeting notes.

Ask participants to pull out the stack of map images provided in the toolbox. Give participants a couple minutes to look over the stack of images, including maps with continents of different sizes, ancient maps, braille/tactile maps, and other cartographic documents.

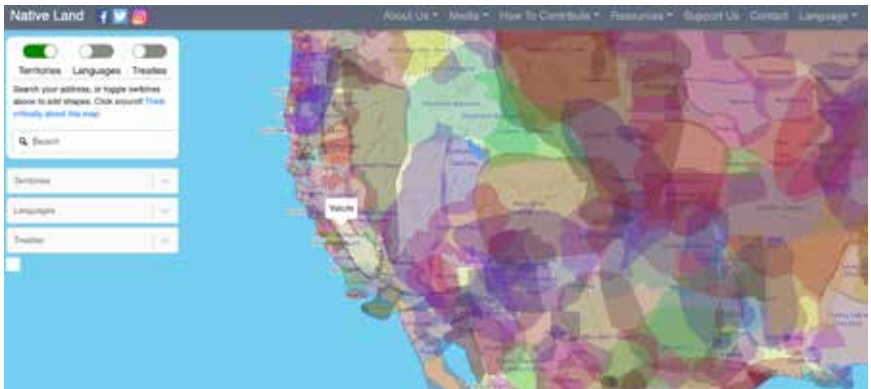
This can be done in smaller groups, using maps provided to participants, or as a slide show discussing each map/slide. If physical materials are unavailable, participants can also research maps online or from the references below. What are some common and unique components of these maps?



*A sample mental map on transparency frame.*



*Waterman Map Projection<sup>4</sup>*



*Native-Lands.ca website<sup>5</sup>*

## **PRACTICE** 30 minutes

Using the blank sketch sheet provided in the toolkit, ask participants to make a quick map as if they were showing their neighborhood to someone new. Start off each map with the participant's home (represented by a star sticker or another unique symbol), and ask participants to include places they like to go, their school, or anything else important to them. They can use words, pictures or



symbols to show each different area on the map. Not all streets need to be visualized, but main thoroughfares or important paths should be documented. Participants with visual impairments can also use glue, glitter, and other tactile materials to create a textured pathway.

Participants should use an overall radius of around a mile or so, from their home (this can also depend on the project scope and can be adjusted accordingly). Participants can use Google Maps to help ascertain the distance, but they should draw particular landmarks unique to their daily lives. These landmarks can be community spaces, spaces to eat, spaces to play, learn, or points of visual interest.

## **CLOSURE** *10 minutes*

Compare maps with other participants. Drawings can be shared via a group communication channel. What similarities and differences do you notice?

These collective maps will come together to represent the shared perceptions of the green spaces within the project's scope but also within the daily realities of participants' own immediate spaces and the shared fabric that makes up these community spaces. As participants go forward, these maps will build on histories within the immediate space and within the overall area shared between these various maps. Individual maps will be added to the Google Drive in a predetermined filing order, with individual maps adding information to the shared project scope. This will contribute towards a layered "thick" map encompassing the many aspects of lived experiences within these areas.

If these projects will be completed individually, the mental map can now become the base map for each individual's project. If completed as a group, add one point of interest from each participant's mental map to the group base map.

# STEWARDSHIP MAPPING

---



## Learning Objectives

1. Participants will be able to define stewardship and defendership
2. Participants will be able to identify external and internal stewards
3. Participants will begin to identify the various social and environmental services that make up a public space

**Materials:** Stickers, transparent frames, sticky notes, tactile material of choice

---

## PRE-FACILITATION

Bring common map (created through the mapping program of choice). Bring in the homes and one or two points from each participant map.

## MOTIVATION *10 minutes*

Share the link to [Native-lands.ca](https://www.native-lands.ca) with participants and ask them to identify and share what local nation's land they are on. Pre-identify facilitators for each breakout room who can start by sharing their own introduction.

## INFORMATION *20 minutes*

Facilitators can begin with questions about the group's knowledge and perceptions of stewardship:

“What does stewardship mean to you?”

“Who might you consider an example of a steward?”

“How could a steward be different from a protector of land?”

Stewards can be defined as those who “conserve, manage,

monitor, advocate for or educate the public about the local environment.”<sup>6</sup>

Ask participants who comes to mind when they think of this definition of a steward. Do they think something is missing from this definition? How would they define stewards versus protectors of land?

## **PRACTICE: SERVICES, SPACES, AND STEWARDS** *30 minutes*

Participants will bring up their community map from the previous session. (This session may differ depending on the focus of the activity. If the group is focusing on a single public space, this activity can be centered on the public space identified in student's previous map. Alternatively, if it's focused on various public spaces, participants can pick a single space relative to their own home or community)

For the activity, facilitators can provide tactile materials in the toolkit for those with visual impairments including textured objects such as clay, sculpey, glitter, sand, etc. Other methods can be expanded based on participant needs, including the provision of a braille hand printer, or audio navigation on Google Maps. Facilitators should have a discussion with disabled participants to identify a process that best fits disabled participants' needs.

Go over what services, spaces, and stewards are with participants:

- Services are the daily maintenance and necessities that ensure a public green space is taken care of.
- Spaces are the areas and key landmarks in the designated area that are important to the participants and communities who share the space.
- Stewards will be institutional or community based actors that take care of land or meets the definitions that participants previously provided.

With the small red sticker stars provided in the toolbox, ask participants to first locate on a new, clear plastic sheet layered over the original community map where services are found in the designated area. This could be water, waste, lighting, transit stops or other services that may be relevant to the park's maintenance and other services participants consider.

With the blue stickers, mark on the same sheet where areas of importance are in the space. These can be basketball courts, vending spaces, playgrounds, etc. or spaces that participants feel are important to community use.

Finally, with the gold stickers mark the places where stewards can be found or located. These can be community organizations, local leaders, city officials, etc. that play a role as stewards of the area. Ask participants to place a large gold star wherever they are located. By choosing to participate in this forum, everyone has taken a step towards stewardship of these spaces.

On a sticky note, participants should provide a brief legend based on symbols they used including the stars and any other landmarks. This can be pasted at the edge of the transparent map sheet. These transparent sheets can be layered to see how information and knowledge become layered, establishing the 'thickness' of our maps.

Ask participants to draw a line from stewards to the services and spaces they provide. Are there stewards who have particular agency over certain services and spaces? What do participants notice about the web of interactions? Take this time to share each other's maps and thoughts about where power lies.

Ask participants what these maps aren't showing us. Are there services or spaces that are missing a steward? Are

there stewards and other services that lie outside of our designated map?

**CLOSURE** *15 minutes*

Write out a list of questions still left over, such as services, spaces and stewards that may be outside of our map's borders, or whose letter/symbol is not connected to any web within this map .

Ask participants to further research and ask their friends and family what they know about these services, spaces, and stewards and how might power play out in determining what services are provided and where they are provided. Youth members should record or write down their family and neighborhood history, and quotes from their family members about the history of their community. They can record with their phone or write down a quote about different histories in their communities.

In addition, ask participants to research indigenous, local, and migratory histories of their community. See Oral History Timelines pre-facilitation for more information.

# ORAL HISTORY TIMELINES

---



## Learning Objectives

1. Participants will identify sites of community, familial, and personal importance
2. Participants will expand an understanding of the shared intersection of space and history in their local area
3. Participants will lay out the foundation for a spatial archive

**Materials:** Stickers, transparency sheets, digital or written recordings and other archival materials

---

## PRE-FACILITATION

Ask participants to research indigenous, local, and migration histories of their community area. Provide materials, sources, and databases centered on community and BIPOC perspectives. There is no date limit to how far back participants can go, and participants can be divided up into specific topics.

This exercise will best work with parents, siblings, neighbors, and community elders. In addition, ask participants to bring materials or information based on the questions that were left at the end of the last session.

If participants have additional materials such as pictures, objects, songs, or videos ask them to bring it to the session or to upload it to the shared drive if they feel comfortable sharing these materials.

## **MOTIVATION** 15 minutes

As participants join the meeting space (virtual and/or in-person) ask each member to share their earliest memory about their current community. What senses, smells, sounds do they remember from the past?

Once participants have shared, ask them how far in time did they go in their research. What did they find out that stood out to them? Was there something in their family's history or community's history they were unaware of? After participants share, transition to the following *Spatial Histories* activity.

## **INFORMATION: SPATIAL HISTORIES** 40 minutes

The purpose of this session's exercise is to add a layer of place-based history into our growing thick map, and contextualize the processes of change.

Participants will pull out the larger region-wide map that serves as the collective base map. Using the colored sticky notes ask participants to put:

- A pink sticky note for a space that's important to the community's history
- A blue sticky note for a space that's important to their family's history
- A green sticky note that's important to their personal future

Each sticky note can have a simple drawing, a quote from an interview, or a symbol related to the space. Whenever possible, ask participants to date each sticky note with at least a year at the bottom right corner. Participants can do this on their own base map in the material kit provided, or via a digital platform. This may require an additional explanation on how to use Mural, though most of the functions necessary can be found on the left-hand toolbar. This session will help participants connect their various

histories to the lived histories and ancestors of the place they inhabit; oftentimes this may align or intersect at key junctions. Ask participants to share in sequential rounds based on the colors of the sticky notes, giving space to share if participants feel comfortable talking about what quotes they may have documented, or what they are sharing.

Give participants about 15-30 minutes depending on the time available. This can be done in rounds so that the first 5-10 minutes are for pink notes (community history); the next 5-10 minutes are for blue notes (family history); and the last 5-10 minutes are for green notes (personal futures).

## **PRACTICE** *20 minutes*

Participants can either share the maps by taking a picture and sharing it with the group via message or video chat; alternatively if participants are working on a common digital platform, such as Mural, they can share their screen online, or have the facilitator share their screen.

Go around asking participants to share some of the points that stood out to them. One facilitator can add these points to a common working document as participants talk about the most significant point on each of their maps.

Groups can send in a picture, audio, or video to the group's facilitator, making sure to indicate to the facilitator where and when these points represent in the timeline.

What stood out to participants from the interviews they conducted and hearing what their fellow community members had to share about their home? What are overlapping trends, histories, and spaces? What might have been unique to different groups and areas of their community/neighborhood?



## CLOSURE *10 minutes*

Thank participants for feeling comfortable and secure about sharing these materials. It's important to consider the sensitive nature of some histories that may have been shared particularly those linked with displacement, enslavement, or violence. Remind participants that everything that was shared here today was confidential and nothing will be shared outside of this space unless participants provide permission.

If participants feel that not enough time was provided to respect the histories of these places, then center the next session on addressing these histories further.

For next session, participants will contextualize everything we have learned into a broader Theory of Change. Ask everyone to upload or finalize their materials by a set date.

Assign a facilitator to sort through and 1. map the histories through a digital platform (such as ArcGIS StoryMap, or Google Maps) and 2. collect the audio, visual materials collected (including pictures, interviews, drawings, and stickys) into a single timeline (this can be done through a simple slideshow or with more complex designs embedded into the ArcGIS StoryMap or other applications).



*Example of mapping digital “sticky notes” on Mural.*

# THEORY OF CHANGE

---



## Learning Objectives

1. Participants will contextualize short-term site intervention into long-term systemic changes
2. Participants will become familiar with theory of change and identify key issues in the community
3. Participants will establish next steps and key leverage points in addressing community goals/issues

**Materials:** Paper, sticky notes, string, Theory of Change target sheet (Appendix C), tape

---

## PRE-FACILITATION

Become familiar with the theory of change<sup>7</sup> and speak with partnering organizations to identify a strategizing process.

Review and consolidate the materials so far. This can be done digitally through Google Drive. If possible, embed a shared map with individual layers from participants materials. Facilitators should take note of recurring issues and knowledge that connect participants.

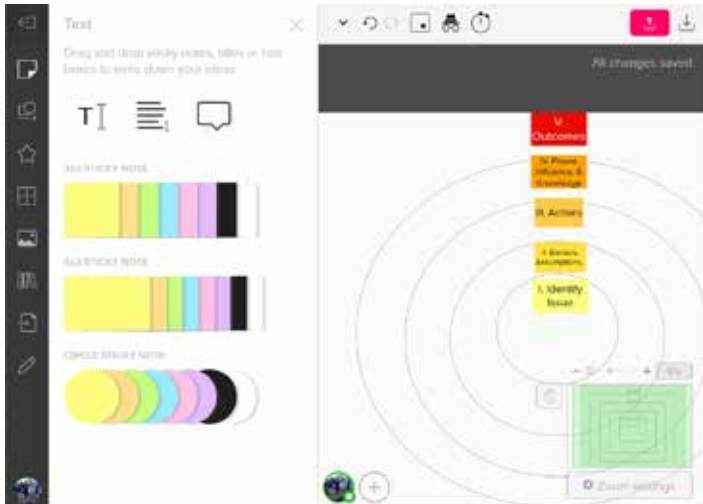
Reference: [Nesta Playbook](#), [Theory of Change](#)

## MOTIVATION *10 minutes*

As participants come into the space, reflect on some of the key points that stood out in past meetings. They can pull out the layered maps that have been worked on and any field notes they may have taken so far. What do these layered histories and perspectives tell us about a key issue or site of interest shared by the community? Participants can jump in or popcorn to another participant.

## INFORMATION *40 minutes*

Pull the Theory of Change Worksheet to guide the activity. Have printed versions available in the remote toolbox and shared drive. Alternatively you can use a common Mural space to work digitally.



Start by explaining to participants the basic components of theory of change. Theory of Change "... is focused in particular on mapping out or 'filling in' what has been described as the 'missing middle' between what a program or change initiative does (its activities or interventions) and how these lead to desired goals being achieved."<sup>8</sup> The group will be applying Theory of Change to identify long-term strategies to current actions and site interventions.

The Theory of Change matrix outlined above will help the group strategize collectively and learn to move forward with a site intervention in the context of wider systemic change. Now that participants have shared information on the community history and key assets, begin by focusing on key issues that are most relevant to communities in public spaces. The scope can be adjusted based on the project's focus or the space the community may have previously agreed to focus on.

**Circle I\*. Identify Issues.** What are shared issues in the community common spaces? What histories are tied to these issues/places? Participants can reflect on spaces and sites that connect their communities across maps by providing key words (mobility, safety), images (trees, sun), or specific places.

With the group, identify 2-3 issues that have highest prioritization for the group. These can be done through a zoom poll based on issues identified.

*\*If the project is limited by a specific jurisdiction, ask what are the broad issues of the community and how do these issues manifest in the project's scope (i.e. a specific park, a transit site, watershed etc.).*

**Circle II. Barriers & Assumptions:** What are challenges in addressing these issues? Are there gaps in our knowledge, or places where the groups need to become more familiar with certain issues?

**Circle III. Actions:** What are immediate actions that can be undertaken? If there is an issue what could be potential responses/changes?

**Circle IV. Power, Influence & Knowledge:** What group or institution can help us reach our goal? Who holds power in achieving our goal? Who can help us get more knowledge about how to achieve our goal?

**Circle V. Outcomes:** What change are we seeking or expecting from our actions? How can we evaluate and measure our ability to address the original issue?

As the group goes from the original 2-3 issues, draw the lines that connect the original issues through each circle to the final outcomes. Have facilitators become familiar with

the process and bring on community leaders to co-lead the activity.

## **PRACTICE** *20 minutes*

Review the answers participants provided. What are common issues? Is it clear who keeps powers in these spaces? Where are the leverage points to address these issues?

Discussing as a group, identify a space(s) and an issue(s) to center a design intervention and/or site activation within the scope of the project. Based on the key words identified in Circle I, address the issues in context of the Theory of Change that is outlined. What do participants feel the next steps should be to address these issues? What are entry points for the group (for example, contacting a council member or local organization, research a subject further, mobilize community support etc.)?

Identify the next steps. At this point, facilitators and participants can identify key individuals or sources of information to contact and identify a schedule or timelines of actions. Responsibilities can be delegated as a group. This process can run parallel to the design process or later, depending on the context of the project.

## **CLOSURE** *5 minutes*

Wrap up the session by asking participants to think of what services and spaces require certain organizations, or social actors? Who will be impacted? Who needs to be involved in these processes to invoke change?

Key questions can be written down regarding specific authorities and stakeholders to further contact. These authorities can be brought in next session to discuss what the organizational roles and responsibilities are over a space and what the obstacles are to implement change.



# Curriculum Part 2: Environmental Design & Planning

# ENVIRONMENTAL COMFORT

---



## Learning Objectives

1. Identify and understand categories of environmental comfort for community stakeholders
2. Identify 5 or more reference points in a shared environmental space
3. How to use technology to document contamination, pollution, and other health indicators in a site
4. Understand the variation in climate and comfort within a selected site through examples of lived experiences

**Materials:** Paper, drawing materials, tape; pollutant reader, thermometer, or other environmental monitoring tools if available

---

## PRE-FACILITATION

Invite an external speaker or local steward to come and talk with the group. If choosing to carry out the outdoor component of this activity, provide safety guidance for participants and notify them they'll be doing a brief outing.

## MOTIVATION *15 minutes*

Ask participants where they like to hang out when...

- It's hot outside
- It's raining outside
- When they want peace and quiet
- When they want to gather with friends or family

## INFORMATION *40-60 minutes*

We recommend creating a short presentation to introduce participants to concepts like urban heat islands, traffic



pollution, urban water access, noise pollution, or anything else pertinent to your local environmental conditions. Included in this presentation should be a discussion on environmental comfort and the increased impact of climate change on pre-existing issues.

These presentations can bring in key allies or sources of knowledge to provide more information for the group. The presentation and added materials can be adjusted based on the issues identified previously. Describe the effects of these issues and discuss with participants: which ones have they have experienced, and how the community may try to mitigate it's impacts?

## **PRACTICE** *30-60 minutes*

Ask participants to choose 3 locations within a 5-10 minute walk from their home. They should try to vary these locations as much as possible (eg. choosing one place near a tree or in a more green space, one location near a road, etc). At each location, participants will sit for five minutes and observe sights, smells, temperature (with thermometer if available), and any other factors of comfort. Are they sweating? Cold? Do they feel safe and relaxed? If participants are equipped with air pollutant readers or other environmental monitors, have them take a recording at each spot.

Ask participants to document these points in a journal or notebook (or paper if not provided in the material). Alternatively, participants can also use Street View on Google Maps if they are unable to leave their home. Using Google Maps and personal experiences, they can document what that site is like and what the factors of comfort are there.

This time can be planned in advance so that participants pre-select their brief outing, and meet after returning from

their outing. Ask participants to upload and share some key places they visited. A common site form can also be created using Google Forms, or Kobo Toolbox, to document the geographic information and site conditions.

## **CLOSURE** *10 minutes*

Map all or some of participants' responses on a new map layer. Next to the location markers, add a sticky note with notes about the conditions at each site. Participants can identify a common symbology for sites and key features they have and key thermal areas and sites of comfort.

For the next session, ask participants to bring in plant samples and a brief inventory of plants in their area. See *Plants and Places* pre-facilitation.

# PLANTS AND PLACES

---



## Learning Objectives

1. Identify key flora and/or fauna population of site ecology
2. Prioritize compatibility of flora on local land
3. Collect information on indigenous and local plant uses and significance (This will also provide information for educational signage later on).

**Materials:** Paper, drawing materials, tape, textile book, camera or mobile phone

---

## PRE-FACILITATION

Ask participants to go out around their house, and neighborhood and take pictures of plants and/or animals they come across. Ask participants to take at least 10-15 picture samples or sketches.

Share a database on indigenous and local plants and ask participants to look up the plants they found, identifying each sample by name, location, plant type (shrub, tree, flower, etc.), properties (does it grow near wet or dry areas, urban, marsh, etc) and whether it's indigenous to the region.

Ask participants to upload samples in a shared drive folder, and an inventory list/table of the samples they found. If possible, ask participants to place the points where these samples were located via a shared map or have the facilitator save these images as samples points on a map.

Reference: [Native American Ethnobiography Database](#)

## **MOTIVATION** *15 minutes*

Share samples of flora and fauna that were gathered. What are some common plants or animals that community members found, and what were some that were more distinct/unique to different areas?

As participants take turns sharing, note what trends are coming up. Ask participants to think about how they might categorize the different plants based on their characteristics.

Ask the group: where are there not enough plants? What kinds of plants tend to gather in different climates and local environments?

## **INFORMATION** *30-60 minutes*

Ask participants to pick 1-3 indigenous species and understand their relationships to the land and its ancestors. If working on a common site or area, coordinate with participants to focus on specific areas's samples. Participants can share an area to explore, but if the site is large make sure to designate a broad range of areas for participants to examine.

Provide a vegetative aerial snapshot of the area/site the community is focusing on using Google Maps. If working on a shared map, make sure participants have steady internet access, and can see each other's changes. If working separately, make sure your key and scales are consistent and clear between participants.

Explain to participants how vegetation might work in conjunction with the social and physical landscape. Materials can connect to previous elements of the *Environmental Comfort* activity, and will help expand Part 2 and 3 of the Theory of Change worksheet.

Each group will rely on unique information relevant to the vegetative and environmental qualities of the area. It may be a useful session to bring in a speaker familiar with the local environment to discuss more about the shared history and ecosystems of the area. Overall, the information provided should explain: what a vegetative area is, the types of vegetative areas/ecosystems in the designated area, and the relationships between plants and animals in this area. Are there particular benefits to these plant species (such as pollinators, carbon sequestration, re-remediative, etc.) and what have been the historical uses and relationships to these plants?

## **PRACTICE** *30 minutes*

Generate a key of plant types of previous plants and a scale to work with. Identify the primary vegetative environments in the area including but not limited to wetlands, forested areas, paved spaces, arid environments, etc. based on the participants original map.

Participants can focus on specific areas of a site, or on the site as a whole. If working remotely participants can use textiles provided to re-create the vegetative areas of the site by cutting materials to the size of the vegetative area (these can include but are not limited to marshes, swamps, forested, desert etc.) and pasting it on one of the upper frames. Use the bottom frames to help identify where key landmarks are and provide direction in designating vegetative areas.

Over the textile, participants can paste small labels locating plants and animals found in each respective area. The final product should show the vegetative area and points where samples were found. Indigenous plants and species can be distinguished with a gold sticker or different colored text in the label.

## **CLOSURE** *15 minutes*

Ask participants what correlations appear in their vegetative areas. Are there particular plants and animals that overlap with certain areas? What physical and social properties exist (are certain vegetative proximate to water, residential neighborhoods, or other particular landmarks or social spaces)?

How might the historical and beneficial uses of these plants be integrated into future design elements? Are there ones that resonate with the issues identified in the site/area?

As the facilitator takes note of participants reflections, highlight plants that participants mention and the particular uses that participants bring up. These will provide greater detail for future design interventions and complement the spaces envisioned in the *Environmental Comfort* activity.

# MOBILITY AND ACCESS

---



## Learning Objectives

1. Identify stakeholder needs around mobility for disabled community members
2. Identify key exit, entry, and connecting points in site schemata
3. Incorporate mobility changes to larger site map & intervention proposal.

**Materials:** Paper, drawing materials, tape, textured tape, transparency frame

---

## PRE-FACILITATION

Collect images of architectural features that could limit mobility. If a site has been selected, prepare images of the site, or ask participants to share images of the shared site prior to the session.

## MOTIVATION *15 minutes*

Ask participants to reflect on mobility and transportation. What are some different ways they can get around their neighborhood? What makes it easy to get around with some modes, but harder with others?

If focusing on a common site, ask how often participants move through this space. How do they typically arrive?

On a separate page a facilitator can keep count of the transit preferences of participants via a tally, and make note of community member comments.

## **INFORMATION** *30 minutes*

If working virtually, ask participants what considerations they make when they go somewhere. How do they assess how safe a transit mode is?

Ask participants to go out into their neighborhood and record the different modes of transportation that they see, and where they are located. Which modes are the most popular? Do they see or know any difficulty in using this path/transit and do particular members of their family or community struggle using these transit paths (some examples can be elders, family with disabilities, friends who can't afford a transit option).

## **PRACTICE** *30 minutes*

On a transparent frame over the base map, mark important destinations in your neighborhood, or in a site of focus that may have previously been identified. This can include home, school, place of work, friend's homes, or anywhere else that is frequented or is important to participants.

Based on what participants observed in the neighborhood/site and their own experiences, how easy is it to get between any two places on the map? Which destinations are the best connected? The least connected? Are some areas only accessible by car, or easier to get to on foot? What would be key improvements or changes to improve the mobility of the community's most mobile? Facilitators can ask participants to think of someone in their family with mobility issues when identifying pathways of mobility.

After giving this some thought, ask participants to draw route improvements wherever they see fit. They can use different colored markers to show different modes of transportation (red where you envision a bike or pedestrian path, blue where you envision a train, subway, or bus stop)



and mark key issues in different colors (yellow for repairs such as sidewalks or utility services). Rolls of colored or textured tape can also be used to denote different street features or accessibility levels. Don't be afraid to propose new routes, bridges, or shortcuts to get you where you need to go.

## **CLOSURE** *15 minutes*

Have participants compare maps. Discuss: how might your lives be different if your plan was implemented? How would the lives of your family and friends change? How does this impact those with limited mobility and physical disabilities in the neighborhood? These can be friends, elders, family and other community members who, for a particular mode of transit, may have less accessibility. How can our design proposal be accessible for disabled community members? Are there perspectives and needs that are being missed in this design process?

If keeping a group map, add any recurring route plans to a new layer. Identify future strategies and assess how the Theory of Change framework may need to be adjusted so far, particularly in circles 2 and 3.

# DESIGN INTERVENTION

---



## Learning Objectives

1. Create a vision board that addresses identifiable actions from Theory of Change
2. Establish design interventions across key sites of interest for community stakeholders
3. Collect design interventions for short- and long-term site activation

**Materials:** Sculpey, paper, and other model-making materials

---

## PRE-FACILITATION

Collect all of the material created by participants so far. Organize them as layered data over a base map if possible.

Prior to the session, ask participants to take pictures of spaces they enjoy in their neighborhood. Participants can send in a quote to go along with their image describing what they enjoy about this space, or something about why they chose that particular space. Make sure participants submit prior to the session.

## MOTIVATION *10 minutes*

As participants come in, ask them to think about a favorite park or green space. What features does it have that you like or use? What don't you like about it? Discuss with participants.

## **INFORMATION** *30 minutes*

Present photo examples of parks, public plazas or other spaces, that participants have uploaded. Ask participants to share about the image they chose (1-2 minutes per submission). Discuss what they have in common or what is different, and what aspects are unique about each place. Point out notable facilities or design features.

As participants share their reflections, have a facilitator jot down key words to form a word/image bank. Alternatively, the quotes provided by participants can be entered into a word cloud generator to visualize the key elements and features observed.

Ask participants what images or design features connect with key words. For example if “safety” was a common word, ask what design feature made participants feel safe. This can be carried out between two columns, one with keywords and the second with design features.

## **PRACTICE** *30 minutes*

Using the word/image bank, ask participants to take some time to think about what design interventions might be useful in the local park or open space. Think about how you might mix, match, and modify the examples to fit this specific space. Then, using sculpey/polymer clay, create mini models of the features participants would like to see built.

On the topmost transparent frame, participants will place the models where they think each should go. Try experimenting with different arrangements and think about why each one may or may not work well. If a site is already selected, then participants can focus on specific areas of a site, or break out into different rooms to come up with different design features for different sections of the site.

Once participants have finished their final adjustments, identify common features that were brought up. Depending on the values established by the community, vote or identify features with greatest priority for the community.

## **CLOSURE** *10 minutes*

Ask participants to photograph their models to be shared with the group, creating a catalog of different design proposals. Facilitators can collect these elements in a shared visual format; alternatively, a workshop can be organized with participants to incorporate their designs as visual media and share technical knowledge in programs such as Photoshop or Illustrator.

If contributing to a group thick map, participants can place their models on the map where they see best fits (this can be the top layer of the map so the models stay intact).





# **Curriculum Part 3: Advocacy & Site Activation**

# PLANNING ZINE

---



## Learning Objectives

1. Engage participants through the planning process and bring in knowledge and interviews to inform the long term strategy process
2. Expanding Theory of Change
3. Establish a final short-term, mid-term, and long-term process for project implementation
4. Brainstorm potential evaluation standards

**Materials:** Paper, drawing materials, tape, scissors

---

## PRE-FACILITATION

Collect all completed materials from prior activities. Make sure shared drive or data platform is updated. Collect zine examples for participants to use digitally or include in the toolkit.

If possible, identify a potential speaker such as an organization or local agency that can help inform the planning and activation process.

## **MOTIVATION** *10 minutes*

As participants come in for this last session have an open space for participants to discuss what they've learned so far. How does their project scope fit into a broader issue or the wider community need? What are steps that still need to be taken?

This section can be conducted as an informal discussion, or as a SWOT analysis (Strengths, weaknesses, opportunities, threats) depending on the context of each design proposal



and organizational scope. A SWOT analysis examines the current state of an organization's capacity and key leverage points for growth.<sup>9</sup>

## **INFORMATION** *20-60 minutes*

Provide participants with examples of zines and sequential artforms. Ask participants to share any observations about their zines. What common elements do they have? Do they depict a sequence or narrative flow? What topics do they cover? How could we use a zine to help visualize our workflow process and final vision?

A partnering local activist or local agency may help shed more information and knowledge needed on the project proposal and scope. What are some challenges or barriers this individual or group can provide? If they are sharing a presentation ensure that participants have enough time to ask questions and that a large segment is dedicated as a discussion space.

## **PRACTICE** *40 minutes*

Ask participants to pull out the Theory of Change worksheet (either a digital or physical copy used in previous sessions). Using the materials and design elements drafted in previous iterations, ask them to create a story or draw out the process and ideas they have explored so far. The prompt is: what are the next steps for you as a group of activist community members to enact change? Participants can use drawings, images, clips from the web and any other media previously collected to create a zine. Based on participants needs and capacity, this can be done as a physical zine individually, or a digital zine.

Potential programs can include InDesign (if previous workshops covered this skill), or Google Docs. As participants go through these steps, ask them to situate

themselves within their own zines. What role do they see themselves playing in this proposal? What have they done so far, and how does that inform their next steps?

Templates can be provided to participants with pages already pre-framed to guide the narration, or blank pages to allow participants with different comfort levels to express themselves more verbally and/or visually through the zine. The final page should focus on a vision of the future, something the participant would like to see in the long-run to come out of this project. This can be either for themselves, their community or the site itself.

## **CLOSURE** *10 minutes*

As participants finish up their zines, ask them to share any challenges they had forming a narrative. Were there common bottlenecks in the zine process of the group? Based on the zines collected what could be changes made to the Theory of Change process previously identified. Are there adjustments that need to be made? Were there individuals or groups that need to be reached out to for further information on how to implement the project proposal?

Adjust the Theory of Change together and ask participants to upload zine drafts to the shared Google Drive.

# FINAL VISION

---



## Learning Objectives

1. Collect final proposals into a consolidated document
2. Identify next steps
3. Finalize evaluation and project timeline

**Materials:** Power mapping worksheet, drawing materials

---

## PRE-FACILITATION

Identify contact information for key institutions and social actors. Bring in any additional agencies or organizations for the group to speak with.

## MOTIVATION *10 minutes*

For the final session, ask participants to identify what they would still like to find out about the project proposal. Are there questions still unanswered or gaps in knowledge previously unaddressed?

## INFORMATION *40 minutes*

Together, conduct a power analysis of the various actors and groups identified in the Theory of Change activity. A community partner or local agency can lend perspective on administrative knowledge and processes for community input. A power analysis examines the relationships of power around an identified issue or proposal. Using a dual axis grid, create an X axis that runs from opposed (left) to supporting (right). The X axis will determine where a particular group or individual lies in terms of support to the project proposal. The Y axis can represent the ability of the group or individual to address the issue (up) or inability to

address the issue (down). This can be carried out in the Mural app, or a common doc shared with the group.

Allow participants enough time to focus on key actors and groups that may not have been previously covered but are important to the design and implementation process. Ask participants to share what they know about these groups, and whether they have any additional contacts. The facilitator can add comments and notes about actors' particular characteristics, such as which groups are missing a contact, groups that have an answer for an issue the participants are trying to address, groups with resources to help participants, etc. A power mapping worksheet template can be found in Appendix D.

## **PRACTICE** *30 minutes*

Based on the groups identified, ask participants what are some measurable ways for our project to show its intended benefit.

In a separate document, ask participants to work together on drafting a letter to these actors, identifying key benefits of the project proposal. From this list, participants should start to be able to identify key metrics and measurements to test the impact the project will have on the community at large.

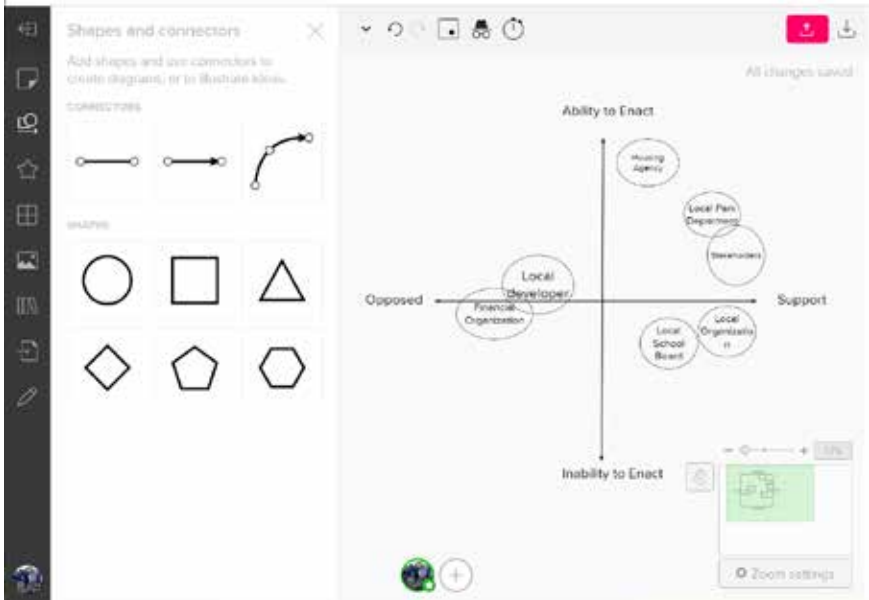
What are its intended benefits at a personal and community level? What opportunities can it bring? Ask participants to focus on the priorities of the respective actors, groups, or agencies they'll be contacting. This can be done together or separately in break out rooms based on key topics or targeted groups (civic institutions, activist organizations, local community members etc.).

Alternatively participants can create a timeline to document when organizations and agencies need to be

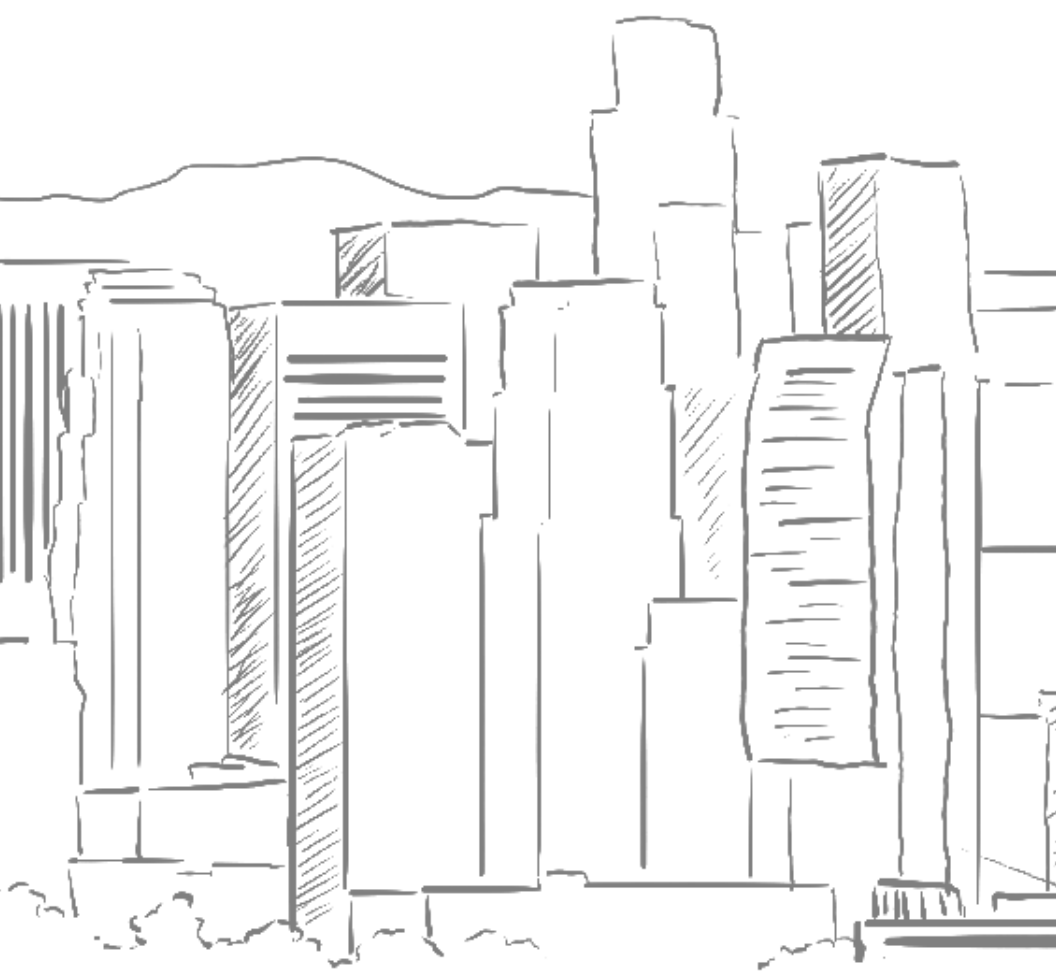
contacted, dates for key project implementations, and additional steps for long term implementation.

## CLOSURE *10 minutes*

Conclude by identifying final next steps and sharing responsibilities to contact key partners and official agencies. Identify next steps to consolidate materials into a single proposal or plan for change



*Sample power map diagram using Mural*



# Appendix

## APPENDIX A • INTERVIEWS

### **Nana Boateng**

*Program Coordinator,*

*826 Valencia*

Interviewed August 7, 2020

Nana Boateng of 826 Valencia, an educational nonprofit for creative writing in San Francisco, reflected on the transition to remote learning and the challenges of keeping kids engaged in creative projects from afar. According to Boateng, many of the organization's strategies for remote learning are still being worked out. However, she expressed that building relationships with parents of students was of crucial importance during this time to ensure that education at home is as equitable and engaging as possible. Boateng reflected on her own experiences in the remote classroom and looked forward to the curriculum planned for fall.

Though remote learning has had its challenges, it has also brought opportunity. Boateng expressed that the pandemic has necessitated direct contact with students' parents, even where there was none before. Since 826 Valencia works largely with youth of color, their parents are often essential workers who may not be as available for help with remote learning. Thus, building trust and gauging their concerns and interests was essential for successful teaching. The 826 Valencia team is also working on deepening relationships with families come fall by improving teachers' ESL/ELL skills and improving parent/teacher communication by gathering translation support for documents. Additionally, 826 Valencia team members are trained on EDI goals and how to best support under-resourced students with a growth mindset.

There are also positive impacts on the classroom from remote learning. For example, Boateng described how some students who might be more shy in the classroom have opened up more, since they can learn and focus in the comfort of their own home as opposed to a more chaotic classroom setting. Additionally, she noted that remote learning facilitates the integration of other technologies which might be harder to set up in the classroom. Though tutors can no longer jump from student to student with ease, this roadblock has actually led to more fruitful collaboration between students in small groups.

Though 826 Valencia is a creative writing group, their curriculum engages issues students face in their community, the urban environment of San Francisco. Many youth in the programs have witnessed firsthand the toll of racial and environmental justice; the teachers at 826 Valencia help them to make sense of it and find creative outlets for expressing ideas they



may have. Additionally, Boateng expressed that these creative activities are inspiring for students when they can relate to their classmates' work or see themselves represented in the material. Through community partnerships, students can have access to experts on a wider breadth of issues and find unexpectedly exciting new interests. By empowering youth with in-depth, hands-on learning activities, kids are encouraged to be leaders in their communities and envision their own futures.

## APPENDIX A • INTERVIEWS

### Maddy Ruvolo

*Transportation Planner*

Interviewed August 9, 2020

Maddy Ruvolo is a transportation planner and a disability rights advocate. She shared her thoughts on accessible public engagement during the COVID-19 pandemic, as well as general strategies for engaging the disability community in the environmental planning and design processes.

According to Ruvolo, the public engagement process has long been fraught with issues of inaccessibility. For the disability community, common problems include physically inaccessible locations (including locations that are technically ADA accessible, but in reality are not functioning at their full accessibility), as well as lack of proactive planning for accommodations disabled community members might need (requiring ASL interpretation to be requested in advance, not captioning videos, etc). While public engagement during the pandemic largely eliminates problems of location accessibility, virtual formats have their own pitfalls. For example, very few public meetings on Zoom have captions, and auto-captioning software tends to be inaccurate. Additionally, there are rarely alternatives for blind or low-vision users to engage with content being presented visually. Ruvolo notes, however, that she hopes online options for engagement will remain after the pandemic given that they are helpful for those with physical disabilities or chronic illnesses that might have difficulty leaving their home.

Ruvolo reflected on the value of engaging disabled youth in the planning process--despite the fact that youth might not have a complete understanding of ADA code and logistics, they do have understandings of how design or policies have caused hindrances in their own lives. These first-person accounts can help planners and designers better understand where accessibility needs lie. Planners can ask youth about their experiences with a specific piece of infrastructure or environmental design to gauge difficulties with the space. If they themselves don't have a disability, perhaps they have a friend or family member who had trouble getting around? Youth can also be presented with examples of universal design to introduce them to more ideas about what accessibility means.

One of the most important takeaways from this interview was that everybody is able to communicate in their own way. Some people might be more receptive to tactile or aural formats rather than visual; others might need 1 on 1 contact as opposed to participating in a large group Zoom call. Yes/no questions can be a more accessible format of gathering opinions. Ruvolo notes that while these accommodations

## APPENDIX A • INTERVIEWS

might take more thoughtful preparation on part of the planners, making the space for different types of engagement is worth it to gather the maximum amount of information from the most perspectives possible.

When considering the disability community in climate-change related issues, Ruvolo explained that often times, disabled people need things that are not considered “environmentally friendly”; disabled folks have been shamed for not doing enough as individuals to help the environment when in reality there are no alternatives. Additionally, it is important to remember that public policy and government actions around climate change frequently leave the disability community behind (i.e. shutting off power during wildfire season without considering the need for ventilators or other equipment). Thus, the disability community has many important voices to contribute to discussions around climate change and the environment.

## APPENDIX A • INTERVIEWS

### **AnMarie Mendoza**

*(Tongva) Indigenous Waters Program Director-Sacred Places Institute, PhD student in Urban Planning, UCLA*

Interviewed August 11, 2020

Annie Mendoza is a member of the Tongva people, a community leader, and an urban planning PhD student at UCLA. Her work has largely centered around issues of water in the Tongva community in Los Angeles; she is in charge of programming for the Sacred Places Institute. She shared her perspective on public engagement in the Native community.

Native communities have been historically overlooked in government agencies' public engagement processes; however, Mendoza noted that with new government subsidies and heightened awareness, engaging Native populations (and other disadvantaged communities) has risen in priority. Despite these improvements, the people doing the engagement work are rarely from the community itself, which creates challenges--many of those who want to engage disadvantaged communities do not have a sufficient understanding of how to do so effectively. Once the engagement phase is over, community members rarely see the final product or plan that was supposed to serve them.

According to Mendoza, the COVID pandemic has highlighted the lack of understanding between planners and disadvantaged communities. As COVID is disproportionately affecting communities of color and specifically the Native community, the priority for these populations is their survival and well-being. This creates a clash with planners who want to use this time to continue full-speed ahead on their projects and meet deadlines. Additionally, the voices of elders are highly valued in the Native community--but the use of unfamiliar technology to hold virtual meetings often excludes elders' voices from the process.

Even without the disadvantages of COVID-19, Mendoza advocates for a slower approach to the planning process in general. She describes how the top-down processes of traditional planning highlight blind spots in methodology. Given that many planners or researchers are engaging with communities they aren't a part of themselves, the lack of existing relationships causes lost opportunities. An example she gave was how in the LA River Master Plan process, planners asked several questions about policing and safety--though planners predicted this would be a primary issue, it may not have been a top concern among residents. Similarly, while working on a climate adaptation plan for one city, Mendoza recalled how a lack of knowledge about general community understanding regarding climate change necessitated a step back, choosing to first host a listening session before sending out a survey

to residents. She explained how in her own work, building relationships and having casual preliminary conversations can help shape an effective research methodology. Other strategies she uses for working within the Native community include activities that encourage intergenerational cooperation, and she emphasizes the importance of oral histories as a form of data collection.

Making Native voices and histories visible is important even when working with non-Native populations. In 2019, Mendoza released a documentary called “The Aqueduct Between Us,” which serves as a living resource to highlight Native issues in Los Angeles, and one example of amplifying Native perspectives. Native people have a lot of answers to offer, especially to youth who may need help making sense of the world’s current state. Because of colonization, Native people have already been subject to climate/environmental change, pandemics, and more. Looking to history can shed light on survival strategies. Reintroducing Native ideas such as reciprocity and life cycles in the environment that can help people think of themselves in relation to their environment.

These Native principles of reciprocity and relativism are particularly useful for environmental planning and design thinking: how can designers work with and respect the landscape, rather than control it? Mendoza expressed that the landscape is currently under attack--and strong defensive and offensive actions are needed to address the root causes of these attacks: the extractive system that prioritizes profits over people and land. The token offerings of green spaces are not enough; rather, the entire system of land use must be overhauled.

As for Native youth themselves, Mendoza explains that Native folks are born inherently political--knowing what’s going on in the community is essential. During the pandemic, Native youth are actively participating in mutual aid, making sure their elders’ and family members’ basic needs are provided for. Overall, Mendoza does see progress happening on Native issues in Los Angeles. She referenced programs such as East Yard Communities for Environmental Justice, which have built relationships with the Native community, and noted that overall engagement of Native people in Los Angeles has increased and become more active, rather than historicizing Native tribes via place names or monuments. She foresees many more thoughtful projects in the near future.

## APPENDIX A • INTERVIEWS

### **Sandy Campbell**

*Paraeducator,*

*KIPP Bayview Academy*

Interviewed August 13, 2020

Sandy Campbell is a paraeducator at KIPP Academy at the Bayview location in San Francisco. She shared her experiences transitioning to remote learning and how she envisions continuing remote learning into the new school year this fall. Specifically, Campbell offered insight into working (remotely) with under-resourced students with special needs.

Because the transition to remote learning in March was very quick, teachers did not have much time to plan. As a result, KIPP defaulted to asynchronous learning for the spring term, using pre-recorded videos and slides with instructions to teach students. As the students adapt to the technology and the teachers have more time to plan, the school will transition to a hybrid model with both synchronous and asynchronous learning for the fall. Remote learning, of course, has its challenges. Building relationships and checking in with families has proved essential, and as teachers will communicate one-on-one with families of their incoming students before the new school year starts. This practice is valuable given findings that students who have the opportunity to talk to their teachers face-to-face before school starts are more present in the classroom. Campbell noted that parents have felt a greater responsibility for their child's education, but have also been stressed by their additional role as educator. Additionally, especially with special education students, parents' behavioral management strategies can conflict with those practiced by educators. This fall, parents will receive more communication and toolkits for best practices to meet these needs. Though behavior management has been difficult to implement virtually, many students with disabilities have seen improvements in their learning over Zoom.

KIPP Bayview is home to mostly students of color. When asked about BIPOC specific/sensitive teaching methods, Campbell described how educator training is moving from a trauma-informed approach to a healing-centered one. While trauma-informed work centers on a student's past, this sometimes creates a mindset of needing to "rehabilitate" the individual through harsh punishments. Healing-centered teaching, however, acknowledges that students are more than their trauma. It addresses root causes (such as institutional racism) and gives students the tools they need to overcome those troubles. This manifests in a more restorative-justice style approach to conflict management, where students can fix mistakes without being branded

as a bad person. One-on-one support with school counselors is also vital to overcoming trauma. In the age of remote learning, providing parents with the resources they need can help ensure more equitable education.

When working with special education students, Campbell reminded us that each person is unique and each disability poses different challenges. As a paraeducator, she serves special education students in the general education classrooms. She reflected that oftentimes, teachers will not acknowledge a student because the paraeducator is present--and it is important to give students full attention. For special education students, this might mean adapting schedules to allow breaks, move the body, or include activities that fulfill tactile needs. Everybody learns differently and educators should be flexible, accommodating, and responsive to ensure each student's needs are met.

## APPENDIX A • INTERVIEWS

### Zully Juarez

*Communications Liason,  
East Yard Communities for  
Environmental Justice*

Interviewed August 14, 2020

Zully Juarez is a former community organizer and communications liaison for the East Yard Communities for Environmental Justice. Zully's recent work has focused on transportation and its disproportional impact on BIPOC communities particularly in East Los Angeles, South East Los Angeles, South Los Angeles and Long Beach. Zully was one of the lead researchers on a paper published by USC CEPHE that focused on participatory research processes with BIPOC students from South LA/Vernon area, entitled 'A Day in the Life'. This research focused on documenting air contamination from the trucks leaving the South Bay port as well as narrative and multi-media visual representations that were used to disseminate students' understanding of their landscape and environment.

Zully spoke on the framework that EYCEJ centers itself, oftentimes providing a space for students to develop leading and organization skills as activists in the field. Activities and workshops would often draw from the lived experiences of students in dealing and witnessing the disproportionate impact of contamination in their communities. Often these spaces were intergenerational, something that helped bridge many of the projects to communities and serve to organize across LA. During the process of joining the STAND LA environmental coalition, youth and parents played a key role in determining what that process was like and how EYCEJ would be involved, embedding theory of change in theory of development.

The 'Day in a Life' Project was a collaborative participatory and storytelling program between USC CEPHE and environmental justice organizations working in communities across Los Angeles County. Zully worked as a researcher at USC CEPHE as the Community and Engagement Coordinator for the 'Day in a Life' Project. Workshops for this project integrated technical knowledge on air contamination with multimedia skills, such as storyboarding, that were taught by LA Grid. Due to the heavy schedules of these students a lot of effort was placed in communication and in ensuring it was a schedule and process that worked for student needs. Workshops would integrate lived and sensory experiences by centering on student's lives and the issues they found most pressing. This worked due to the trust that Zully, and the researchers had with youth members.



## APPENDIX A • INTERVIEWS

Students were equipped with cameras and air pollutant readers and mapped their way from school and their homes over a set amount of time. This created a complex map that depicted key contaminant points that were further backed by the recordings of students and the field notes they took, corroborating visual sources to key areas of contamination in their neighborhood through movies and film.

Examples of successful campaigns following these principles and frameworks include the South Central Youth coalition's push for a 500 ft buffer from the contaminated area. In another instance youth members attended City council meetings and spoke on the issues of contamination that they themselves and documented and studied within their own communities. This builds off the history of activism in many of these areas, such as the period of the Chicana/o walkouts; 2 week campaigns, the Fighting for Life academy, among other spaces. Certification and recognition play a key role in building youth confidence and knowledge around organizing and skills they learn in these spaces. Some workshops incorporated sensory experiences by asking students where they identify pleasant or uncomfortable smells, mapping ways home, and what are the senses experiencing in those trips.

Much of this involved finding spaces of comfort and where youth identify strongly with. During COVID, much was switched virtually but Zully reflected on the opportunity for these spaces to focus on skill-building through ArcGIS and Adobe suite to further flesh out ideas with community members.

## APPENDIX A • INTERVIEWS

### **Kristy Higares**

*Director of Development*

### **Amanda Hinton**

*Creative Director,*

*Girls Garage*

Interviewed August 18, 2020

Kristy Higares and Amanda Hinton are the Director of Development and Creative Director, respectively, of Girls Garage, a nonprofit in Berkeley, CA dedicated to providing design and building education for girls ages 9-18. Girls Garage's programs serve 200 girls per year; the organization was forced to make a quick transition to remote programs as a result of the COVID-19 pandemic in March.

As much of the Girls Garage programming involves hands-on activities--carpentry, welding, screen-printing, etc-- going remote was difficult. In addition to the nature of these activities, Higares and Hinton expressed that the physical space itself serves as a second home for these girls, a space where they can feel empowered in learning together as part of the community. As a solution, Girls Garage assembled toolboxes with the tools and supplies for a series of virtual projects and distributed them to 27 girls at home. The toolboxes were made with the assumption that nobody had any tools at home. Soon, Girls Garage will launch their year-end campaign with the goal of equipping 100 girls with these toolboxes, which they can keep for life. Not having access to the full shop had its limitations, but through pre-recorded videos and Zoom sessions the girls were able to complete a range of projects, including building their own chairs and bookshelves. The advanced design-build class was able to complete a large chicken coop for a farm in Richmond, maintaining social distancing while on the build site. One takeaway Girls Garage staff had from remote learning was the importance of maintaining flexibility and agility in order to pivot activities if necessary.

COVID-19 has reinforced Girls Garage's belief in the value of their physical space, especially as the advent of virtual programming has brought into question the ability to scale up operations. The organization prides itself on its sense of community, and girls receive not only construction training, but also other types of support like resume and career workshops. They plan to continue with small class sizes to maintain the intimacy that allows for students' growth and empowerment. In addition to the at-home toolboxes, Higares and Hinton foresee more outdoor activities that safely allow for community, such as installing a mural. Higares and Hinton described how the wide variation in projects means that planning for a course or program is always different, depending

## APPENDIX A • INTERVIEWS

on community partners' needs, current events, skill/age level, and the ratio of returning students to first-timers (67% of girls return after 3 or more years). Depending on the program, planning could start six weeks out, though preliminary brainstorming may happen earlier than that. The broader goals and themes for the program are developed first, with details for execution and teaching figured out later, maintaining flexibility.

Girls Garage in and of itself is a form of activism--being a girl in today's world, and especially in the Architecture/Engineering/Construction fields, is a political act. That said, Girls Garage aims to elevate the voices of its students, whatever it is they want to say, and foster lifelong empowerment. One of their courses, Protest & Print, uses printmaking to help girls express an answer to whatever the prompt is for that session (this year, it was about what new monuments they envisioned for 2020). Hinton and Higaes noted that the girls chose to make their prints about a wide variety of topics, from housing to dyslexia. During the protests following George Floyd's murder, some of the girls took initiative to make protest posters. The students at Girls Garage come from diverse backgrounds, and the open-endedness of the design prompts for Protest & Print allow them to draw on their own interests and lived experiences. Overall, the mission of Girls Garage aims to amplify the power in each girl's voice, talent, and perspective through their wide variety of design projects, be it posters or a chicken coop.

## APPENDIX A • INTERVIEWS

### Fielding Hong

*Youth Education Program*

*Manager,*

*Center for Urban Pedagogy*

Interviewed August 26, 2020

Fielding Hong is the youth education program manager at the Center for Urban Pedagogy in New York City. CUP works with youth, local organizations, artists and designers to envision urban futures and provide education on urban issues. Hong shared his experiences with the CUP educational framework and how those have transitioned to remote methods during COVID-19.

In CUP's youth education program, CUP staff coordinates with a group of high school students and a designer to investigate a social justice issue that students encounter in their daily lives. These projects are usually funded by grants from the city and/or state. Before the project actually starts, CUP will recruit a teaching artist/designer and coordinate with school partners to develop a central question based on research about what issues are impacting the community. Once they find a topic students can interact with, students begin their own research process by conducting stakeholder interviews and community surveys, collecting information and interpreting it through art and design activities, and eventually create a teaching tool that can demonstrate to the public what they have learned. These tools can take many formats, including print materials, websites, or documentary. After the tools are developed, they are tested by the teaching artist and CUP staff, often with the help of a high school intern. The youth programs take two forms. The first is Urban Investigations, which are twice a week after school over the course of a semester, with 15 students who are paid. The second is City Studies, which consist of 10 in-classroom sessions with a full roster of students.

CUP is getting ready to launch a fully remote Urban Investigations program in September. This will consist of remote interviews, community surveys via Google Forms, and creative media including screen printing and documentary filmmaking. The teaching artist for this program uses both video and screen printing in their work, and CUP raised money to buy at-home screen printing kits for the students. This way, students can each contribute something that will be digitally compiled into a film. Hong mentioned that one thing to keep in mind when planning for remote programs was that many students would be working on their smartphones, rather than a laptop or tablet, so simplifying what programs are needed is crucial. He also noted that the fall program would include collaborative work, using programs like Google Docs or

Google Jamboard, where students could work together in real time and receive feedback from instructors. Integrating independent and analog/tactile activities (sculpey clay, for example) in addition to what can be accomplished on Zoom will also be valuable to keep students engaged.

The topics CUP tackles with youth are often multilayered and intersectional, as are most urban issues. Making them digestible for youth starts with the development of the central research question--planning ahead with teachers often includes visioning exercises (i.e. "close your eyes and walk through your neighborhood. What frustrates you?"), then using sticky notes to create a graphic organization of responses from symptomatic to systemic. With the students, they start with symptomatic (i.e. "who here knows somebody who worries about their rent?"). Starting with everyday, lived experiences helps students understand where that specific topic is located in the structure of urban planning. Furthermore, CUPs programs seek to teach youth that places where we live are products of decision-making. Learning the who, how, and why of these decisions gives youth a better understanding of where they live. These ideas are also expressed visually through drawing and mapping; for example, students can draw a trash can in the middle of a page and diagram where the trash came from before the trash can and where it will go next. CUP programs also accommodate different learning styles and interests by including a variety of activities that can be done in different ways, and allowing students to take on different roles in the creation process.

When asked how CUP's programs engage the lived experiences of students and community members, Hong responded that it was key to build trust with students, and make space for them to express their experiences freely. He also noted that overcoming discomfort when talking about race was important for working with white participants, as racism is at the heart of many urban issues. CUP also encourages students to be civically active. CUP's Civic Engagement Day connects students to community organizers. Interviewing stakeholders with a range of perspectives helps students think about power dynamics in urban issues and familiarize themselves with different forms of civic engagement.

# APPENDIX B • ADDITIONAL RESOURCES

## **Center for Urban Pedagogy**

Nonprofit using creative methods to increase civic engagement

<http://welcometocup.org/>

## **Y-PLAN**

Research initiative for youth civic engagement

<https://y-plan.berkeley.edu/>

## **LA Conservancy**

Heritage-focused virtual workshops and activities for youth

<https://www.laconservancy.org/back-school>

## **California Native Plant Society**

Nature journaling activity for youth

<https://www.cnps.org/wp-content/uploads/2018/04/cnps-nature-journaling-curriculum.pdf>

## **Hester Street**

Community Engagement in Times of COVID-19

<https://hesterstreet.org/2020/08/community-engagement-covid-19-resource/>

## **Department of Places**

Design firm prioritizing equitable community participation

<http://deptofplaces.org/>

## **Place It!**

Design- and participation-based urban planning practice

<http://www.placeit.org/about.html>

## **Native American Ethnobiography Database**

University of Michigan-Dearborn database of American tribes

<http://naeb.brit.org/uses/tribes/>

## **Stop LAPD Spying**

Community organizing zines focused on abolition and COVID-19

<https://stoplapdspying.org/action/tools-and-resources/zines/>

**Scott Loftesness**

Mini-zine demo

<https://sjl.us/category/zines/>

**Kobo Toolbox for Data Collection**

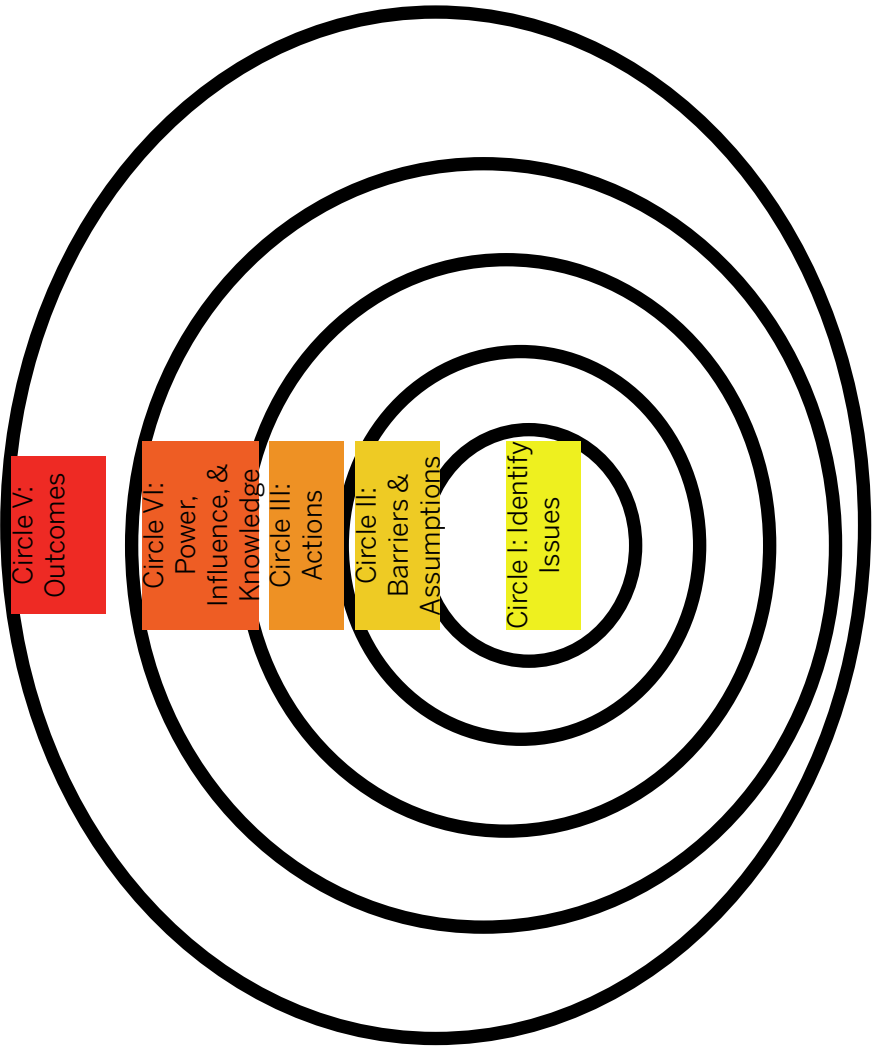
Instructional presentation

[https://docs.google.com/presentation/d/1bMcT53lwcaXVPSE9lweE3t\\_mPVKmVA2KJ3z-rubwBHA/htmlpresent](https://docs.google.com/presentation/d/1bMcT53lwcaXVPSE9lweE3t_mPVKmVA2KJ3z-rubwBHA/htmlpresent)

**Youth Engaged Participatory Air Monitoring: A 'Day in the Life' in Urban environmental Justice Communities**

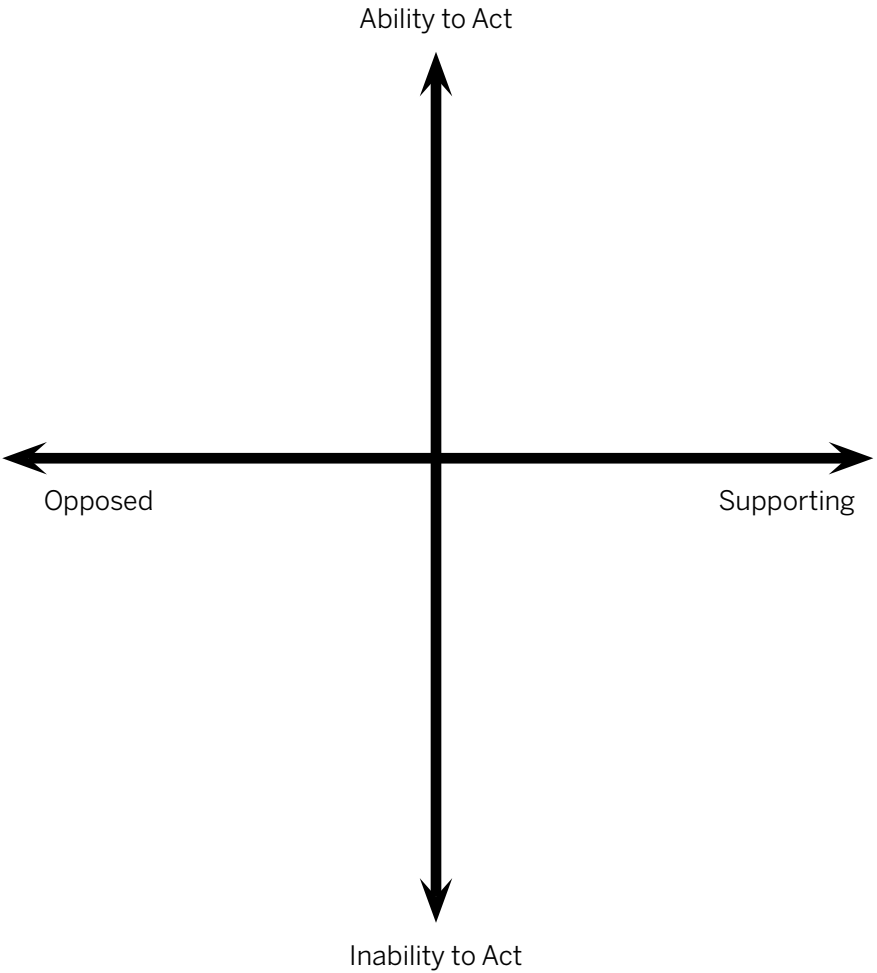
<https://www.mdpi.com/1660-4601/17/1/93/htm>

# APPENDIX C • THEORY OF CHANGE WORKSHEET





# APPENDIX D • POWER GRID WORKSHEET



# APPENDIX E • ENDNOTES

- 1 Cuff et al. "Urban Humanities: New Practices for Reimagining the City" p.96-97. MIT Press 2020.
- 2 Harvard and ESRI. "Call to Action: End environmental Racism now". 2020.
- 3 Nana Boateng and Raine Robichaud. "Place and Creative Mapping Workshop". 826 Valencia. 2020.
- 4 Wikipedia commons, "List of Map Projections." [https://en.wikipedia.org/wiki/List\\_of\\_map\\_projections](https://en.wikipedia.org/wiki/List_of_map_projections)
- 5 "NativeLand.Ca." <https://native-land.ca/>
- 6 "Stewardship Mapping and Assessment Project." Steward Mapping [https://www.nrs.fs.fed.us/STEW-MAP/resources/downloads/STEW-MAP\\_Step-by-Step.pdf](https://www.nrs.fs.fed.us/STEW-MAP/resources/downloads/STEW-MAP_Step-by-Step.pdf)
- 7 Kathy Peach, Aleks Berditchevskaia, Theo Bass, et al. "Nesta- The Collective Intelligence Design Notebook" Nesta's Centre for Collective Intelligence Design [https://media.nesta.org.uk/documents/Nesta\\_Playbook\\_001\\_Web.pdf](https://media.nesta.org.uk/documents/Nesta_Playbook_001_Web.pdf)
- 8 The Center for Theory of Change, "What Is Theory of Change?" <https://www.theoryofchange.org/what-is-theory-of-change/>
- 9 Ronald Quincy, Shuang Lu, and Chien-Chung Huang. "SWOT Analysis Raising Capacity of Your Organization" Rutgers University & Beijing National University, 2012. [https://socialwork.rutgers.edu/sites/default/files/brochure\\_2.pdf](https://socialwork.rutgers.edu/sites/default/files/brochure_2.pdf)



