

*Anai Perez*

GSAPP 2020



**Anai Perez Manrique**

Columbia University, GSAPP  
M.S. in Architecture and Urban Design

ap3888@columbia.edu  
347-207-2236

**01**

*SPRING 2020*

## **ReciproCITY**

*“Lessons from Peacock Park, a new Model of Cooperative Habitation”*

**02**

*FALL2019*

## **Green it, Clean it!**

*“Revitalization of IBM-Tech city through a phytoremediation process”*

**03**

*SUMMER 2019*

## **The Hackensack River waterfront**

*“A new equitable Transport Orientated neighborhood”*

**04**

*SPRING 2020*

## **Colfax and the Calhou Plantation**

*“Perseverance over Politics and Plantation”*

**05**

*FALL 2019*

## **Ghosts in the Shell**

*“Finding interest in the everyday”*

**06**

*SUMMER 2019*

## **Urban Derive**

*Jersey city, New Jersey*



01

SPRING 2020

URBAN DESIGN STUDIO III  
WATER URBANISM STUDIO:THE GREAT RIFT VALLEY

## ReciproCITY

*“Lessons from Peacock Park, a new Model  
of Cooperative Habitation”*

**Peacock Park, Addis Ababa, Ethiopia**

Instructor: Kate Orff, Geeta Mehta, Dilip Da Cunha, Fitse Gelaye

Team: Mary Allen, Nikita, Moneerah AlAjaji

Our project proposes learning from this site, the re-development of Addis Ababa’s rivers should not be that of a large scale infrastructural project such as the proposed Beautifying Shegar, but rather through a smaller more localized system. Addis has the potential to achieve its goal of becoming a “world class city” not through imported models, but by learning from the legacy of what currently exists.

The Cooperative is a multigenerational group that has lived here for the past 50 years. This site, Peacock Park, is defined by its relationship between two rivers, which allows the co- op to actively work the land, producing agriculture in a symbiotic system with the ever changing river.

## CO-OP STRENGTHS

FAMILY CONNECTIONS



STRONG SOCIAL NETWORK

ECOLOGICAL SERVICE



AGRICULTURE AS A PRACTICE

GOVERNANCE STRUCTURE



SHARED INCOME

AGREEMENT OF UNITY

## PEACOCK PARK

UNDER MAINTAINED

UNDER UTILIZED



ARID

AGRICULTURE

CO-OP HOUSING

PEACOCK PARK

BANTIKETU RIVER

## CO-OP FRAGILITY

LOW QUALITY PRODUCTS



NEED FOR CLEAN WATER

LACK OF INFRASTRUCTURE

UNEVEN WORK/RESIDENT POPULATION



INFORMAL HOUSING

LOW INCOME

NEED FOR BASIC SERVICES

NO OWNERSHIP OF LAND



DEVELOPMENT PRESSURE



# THE KEBENA BULBULA FARMERS COOPERATIVE

*A legacy worth preserving*

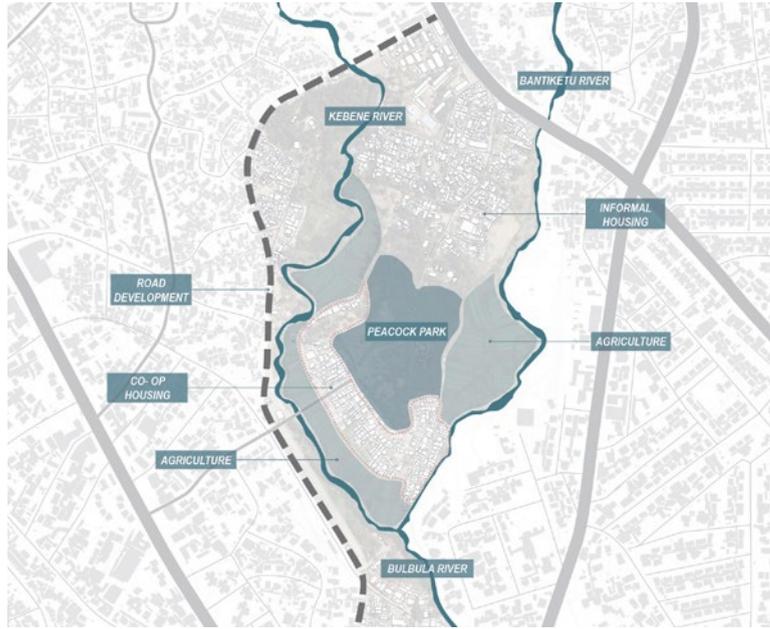
The existing co-op has many strengths, but has begun to crack at the seams and has reached a moment of much needed adaptation. Threatened by river development, the cooperative on the defensive, spatially closing their gates off from the community.



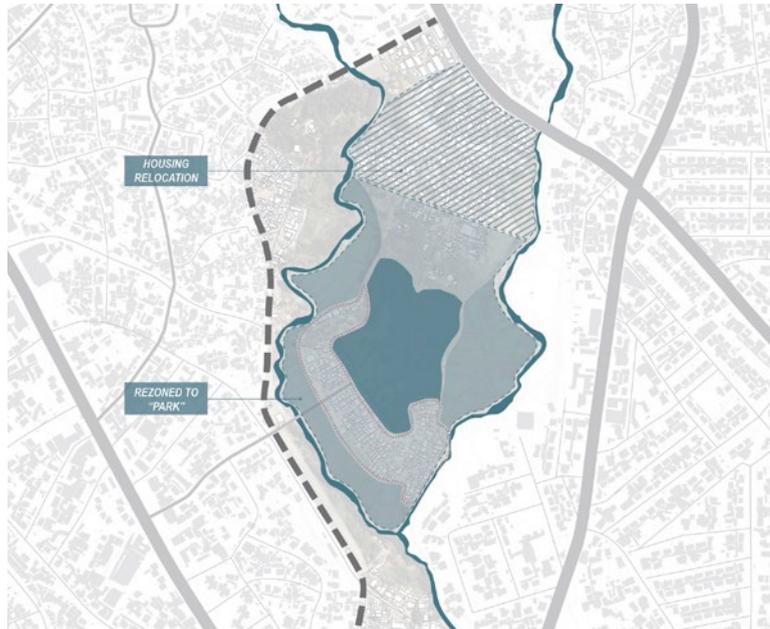
# MOMENT OF MOBILIZATION

*Relationships of Reciprocity*

EXISTING SITE



MASTERPLAN IMPACT



We propose to learn from the strengths of the existing co-op model in Peacock Park by designing a new system of habitation that includes the river, plants and animals, as well as people as actors in this system.

A modified cooperative can act as a unit of change, with its actors engaged in symbiotic relationships that leads to new structures of land management in Addis Ababa.



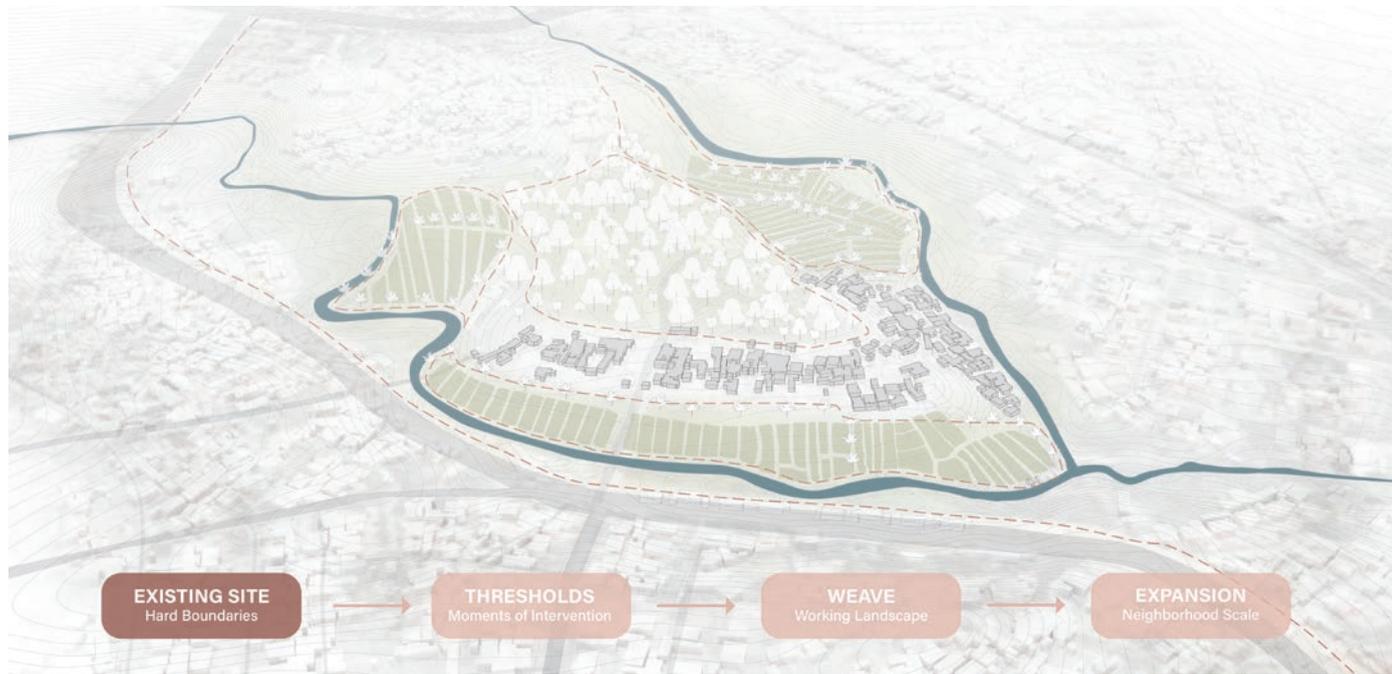
# PEACOCK PARK



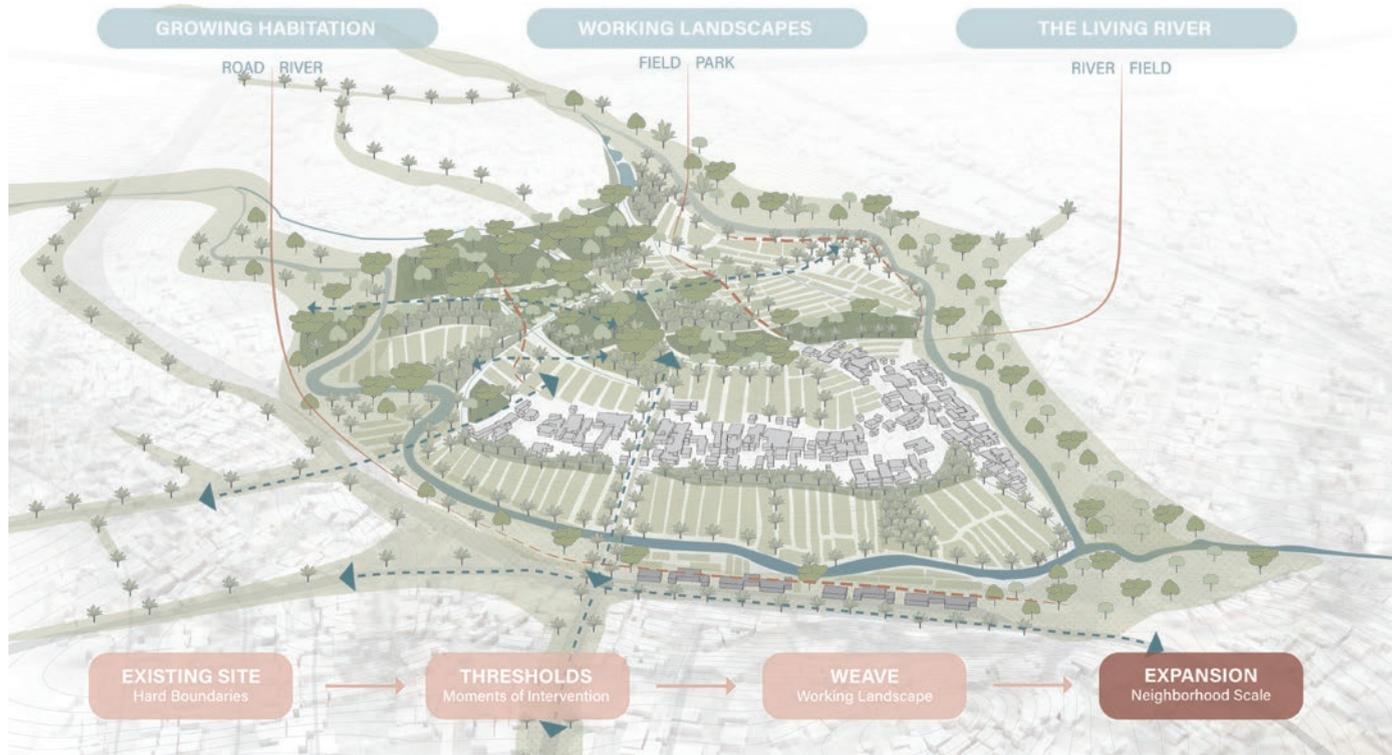
SCAN ME!



**EXISTING SITE**



**DISSOLVING THRESHOLDS**

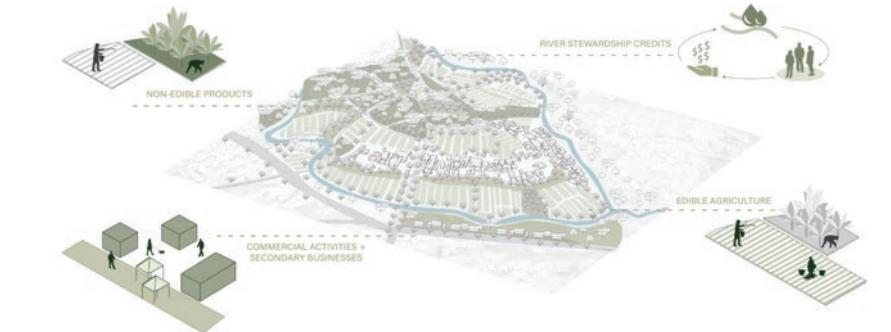


**ECOLOGICAL SERVICES**



Cleaning the water, cleaning the soil and the flexibility to adapt the dynamics of the river.

**INCOME GENERATION**



Opens the closed gates of this community and turning it into a new type of public working landscape.

**SOCIAL FABRIC**



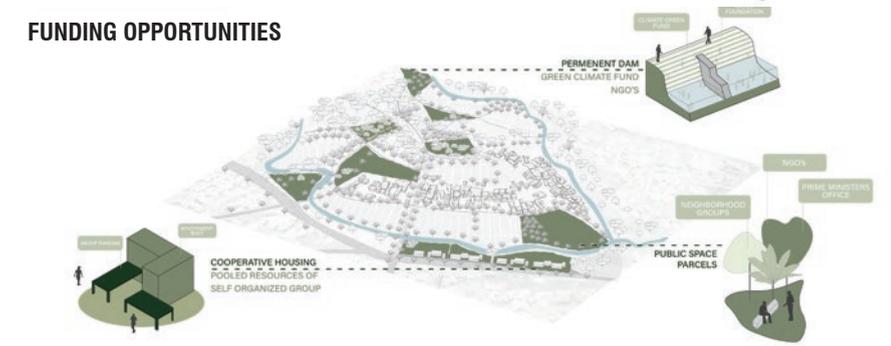
Increasing the earning potential across the site by expanding beyond agriculture to secondary businesses and ecological stewardship credits.

**SOCIAL SERVICES**



Smart growth while retaining the strong social bonds of the cooperative.

**FUNDING OPPORTUNITIES**

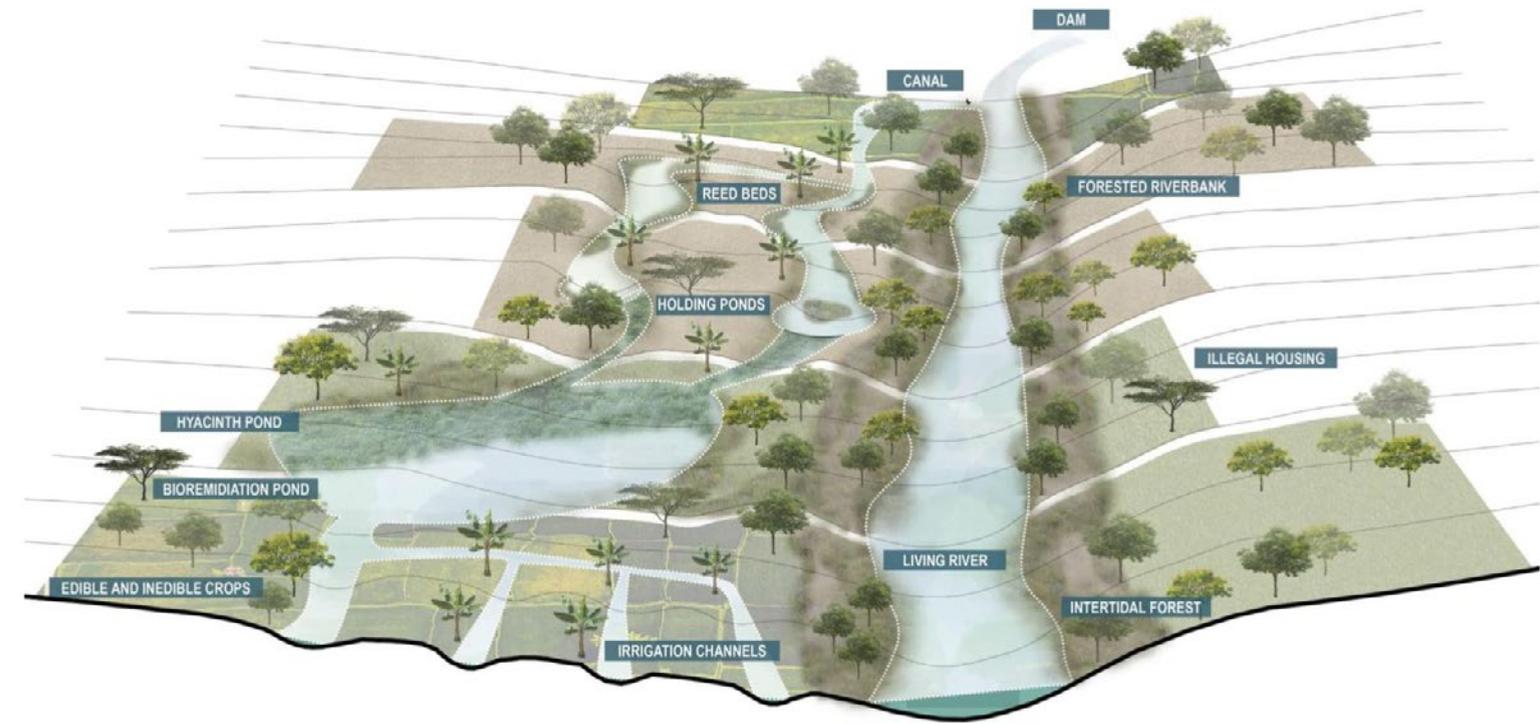


The scale of this site can be broken down into smaller separately fundable projects, welcoming partners like the Green Climate Fund and Prime Minister's Office.

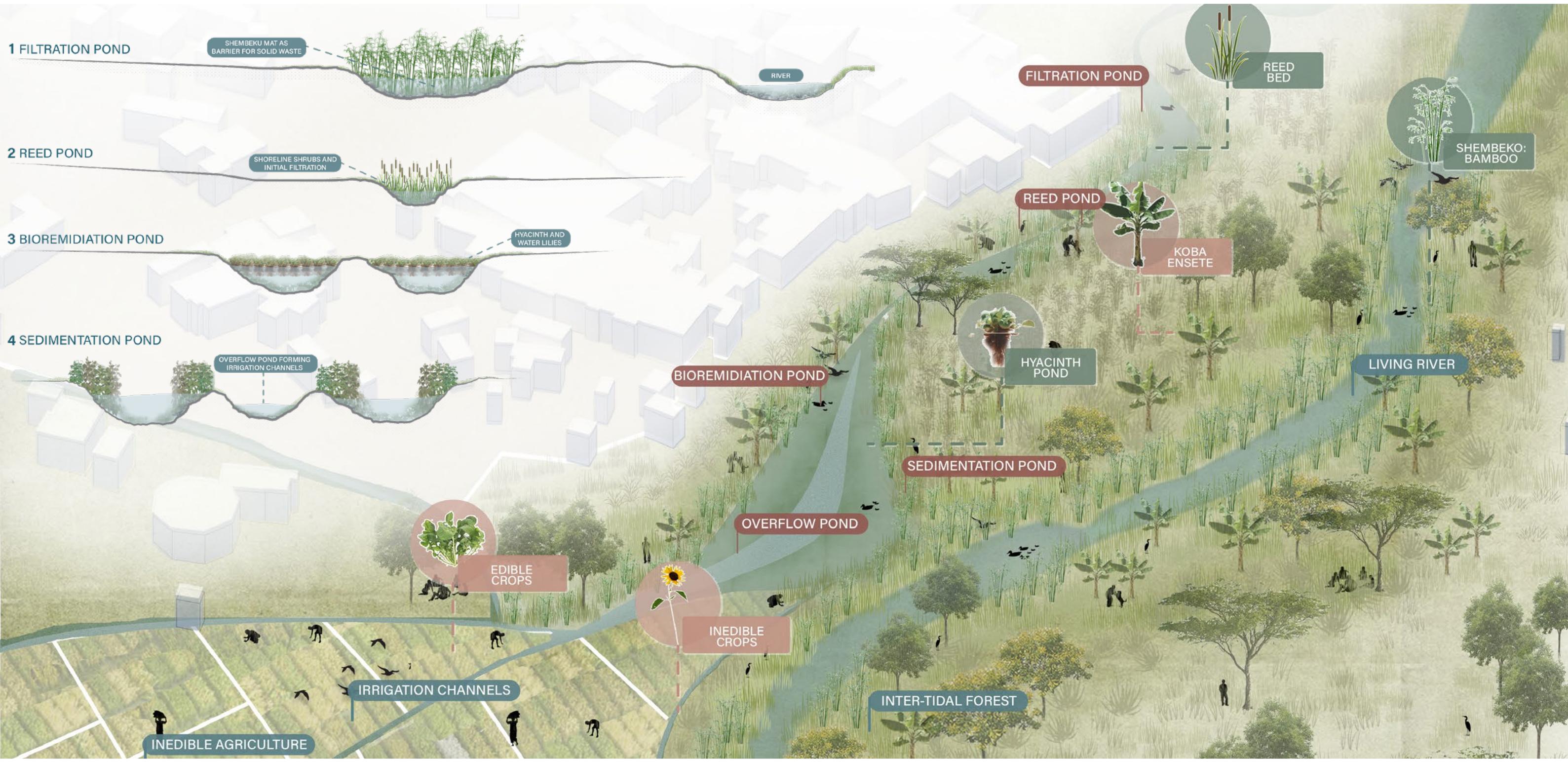


## THE LIVING RIVER

*Absorption and Interaction*



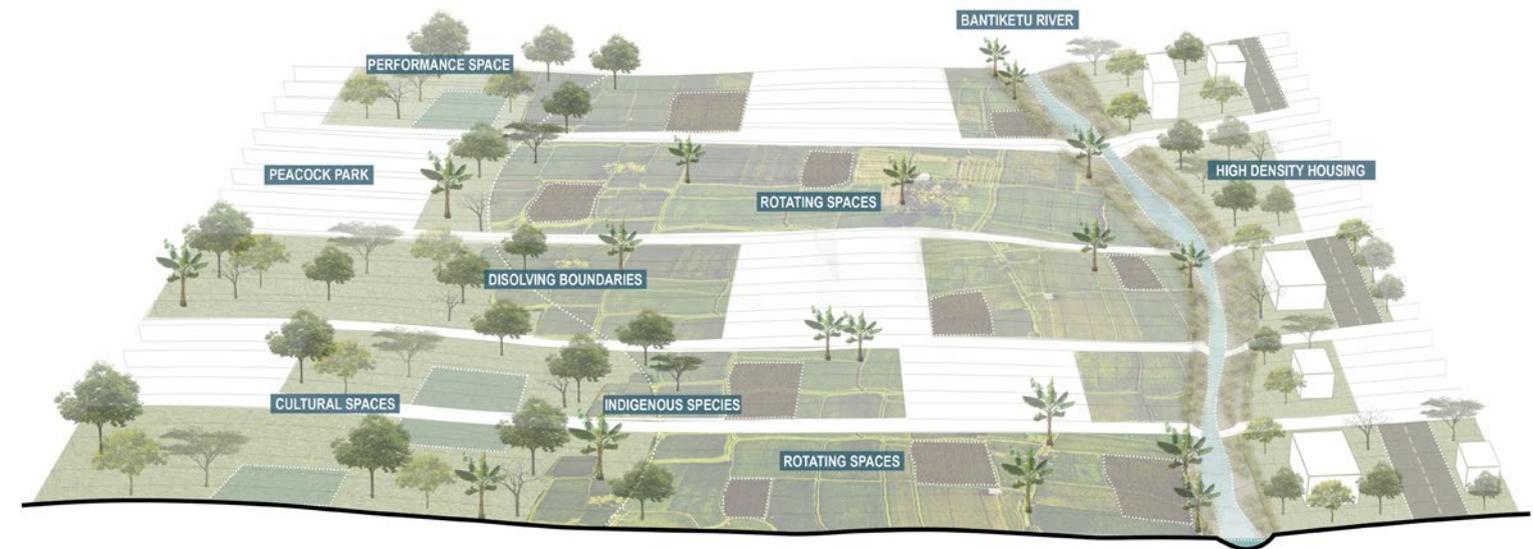
Stewardship of the river and the land will be a priority of the cooperative. By attracting small investment opportunities, the cooperative has the ability to increase the potential of cleaning the river by the introduction of a gradient of plantings, while creating harvestable products.



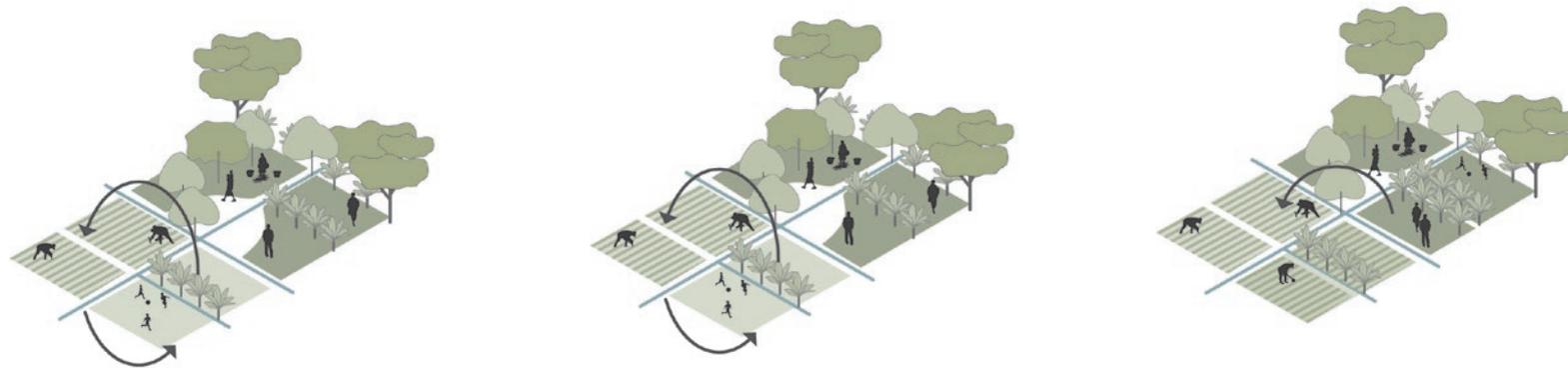


## WORKING LANDSCAPES

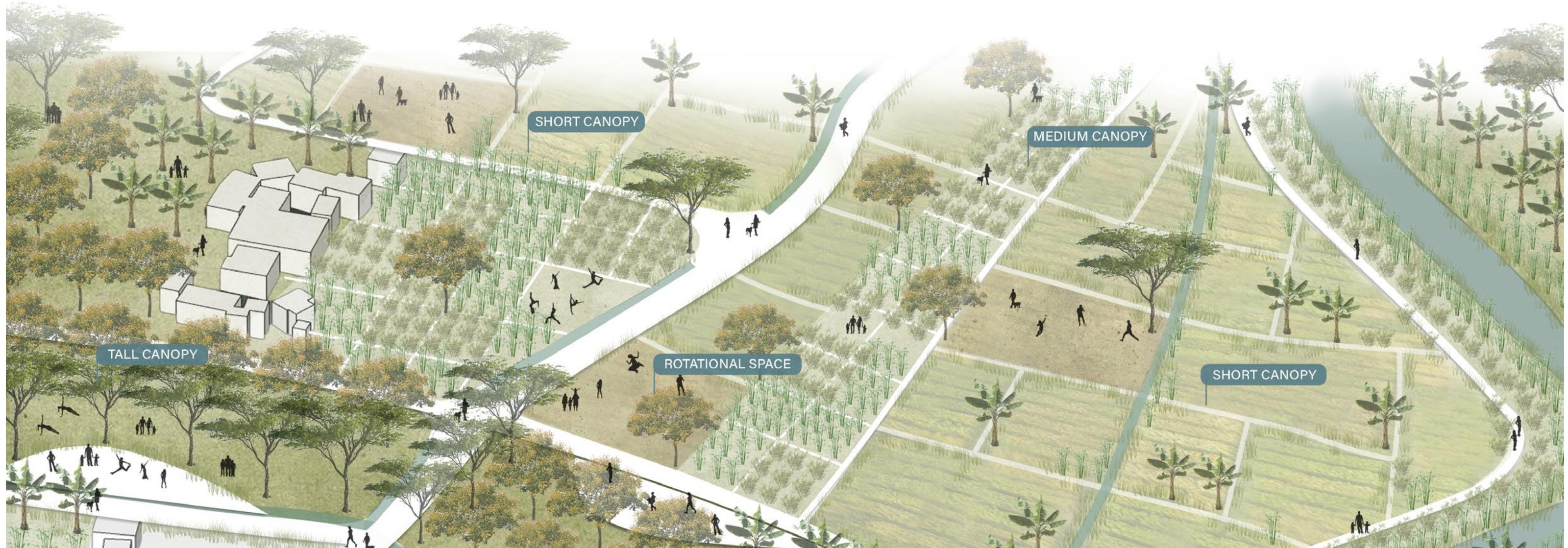
*A canopy of engagement*



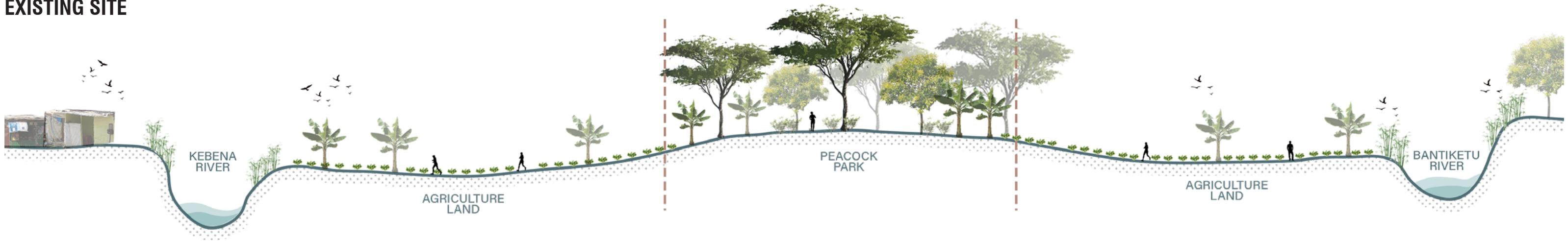
By weaving the fabric of working landscapes and the public park together the space has the potential to provide a canopy cover that increases the ecological health of the site, while maintaining a high level of productivity and challenging the city's master plan that would eradicate urban agriculture in the favor of mono-functional "park".



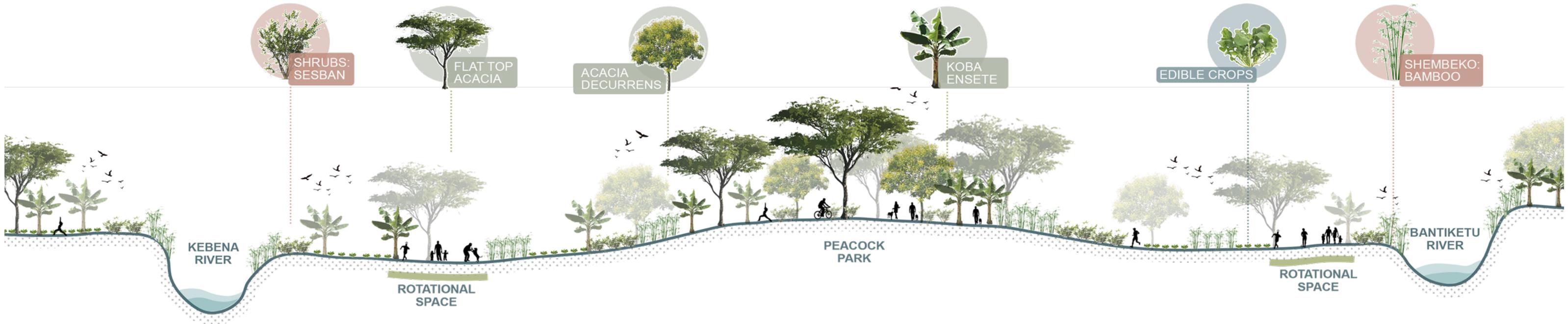
Through a parcelized grid overlay the distribution of the canopy, the public space, and working landscape all work together in a rotating system that benefits the ecological health of the site.

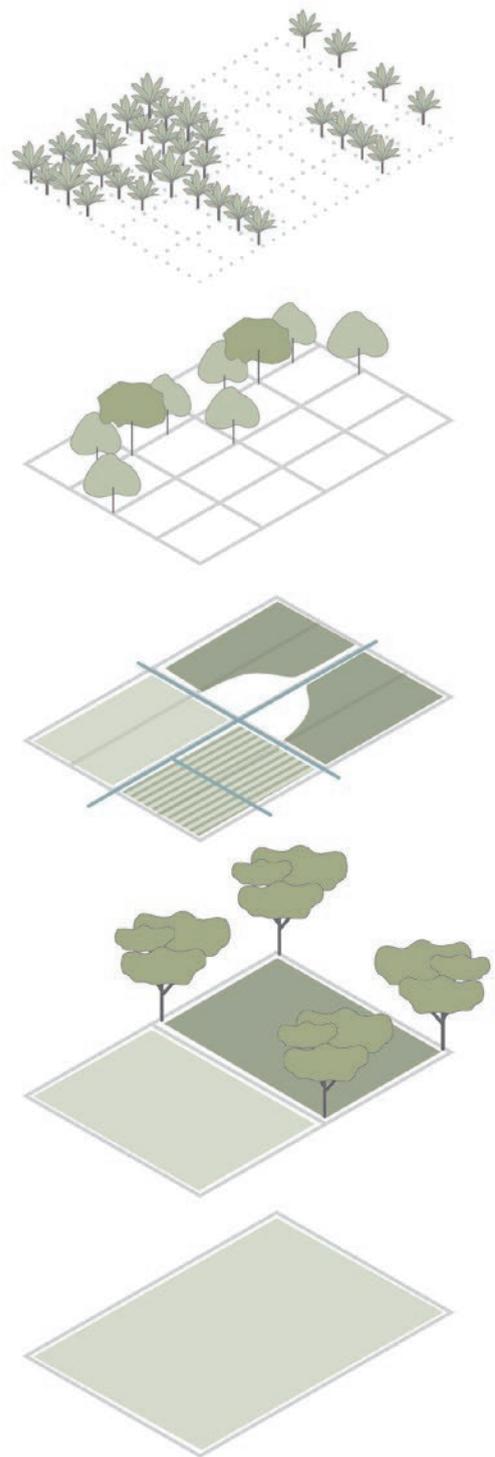


# EXISTING SITE



# DISSOLVING THRESHOLDS







## GROWING HABITATION

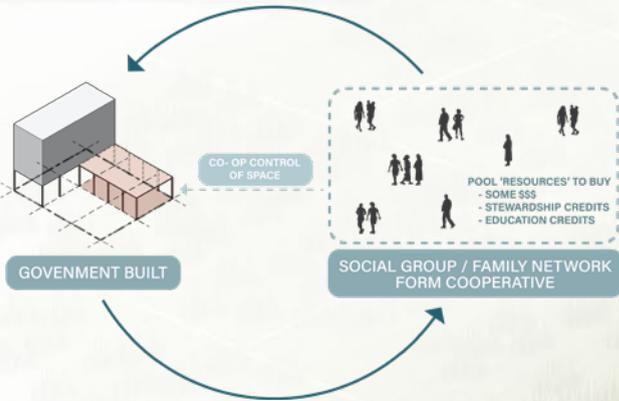
*Cooperative housing and stewardship as a model for land management*



Housing on this site, and across Addis, can learn from the structure of the cooperative and take advantage of government funding to develop a cooperative housing structure. Interwoven with the new housing system typology, the design involves formation of a new economic corridor by the road, activity plazas for the public and an organically emerged and growing local market throughout the housing neighborhood.

# COOPERATIVE HOUSING

CAN COOPERATIVE HOUSING BE THE MIDDLE GROUND SOLUTION BETWEEN KEBELES AND CONDOS?



- 1. GRID ESTABLISHED**
  - 3x2 PLOTS PER CO-OP
  - 4-5 HOUSEHOLDS/ FAMILY GROUPS PER CO-OP
- 2. PLOT DIVISION**
  - 2 PLOTS FOR HOUSING
  - 2 PLOTS FOR FUTURE COMMERCIAL SPACE
  - 2 PLOTS FOR DEDICATED COMMON SPACE
- 3. FINAL PRODUCT**
  - HOUSING STRUCTURE BUILT BY GOV
  - OTHER 4 PLOTS TO BE DEMOCRAT BY CO-OP



INCREMENTAL HOUSING

ECONOMIC CORRIDOR

RIVER STEWARDSHIP

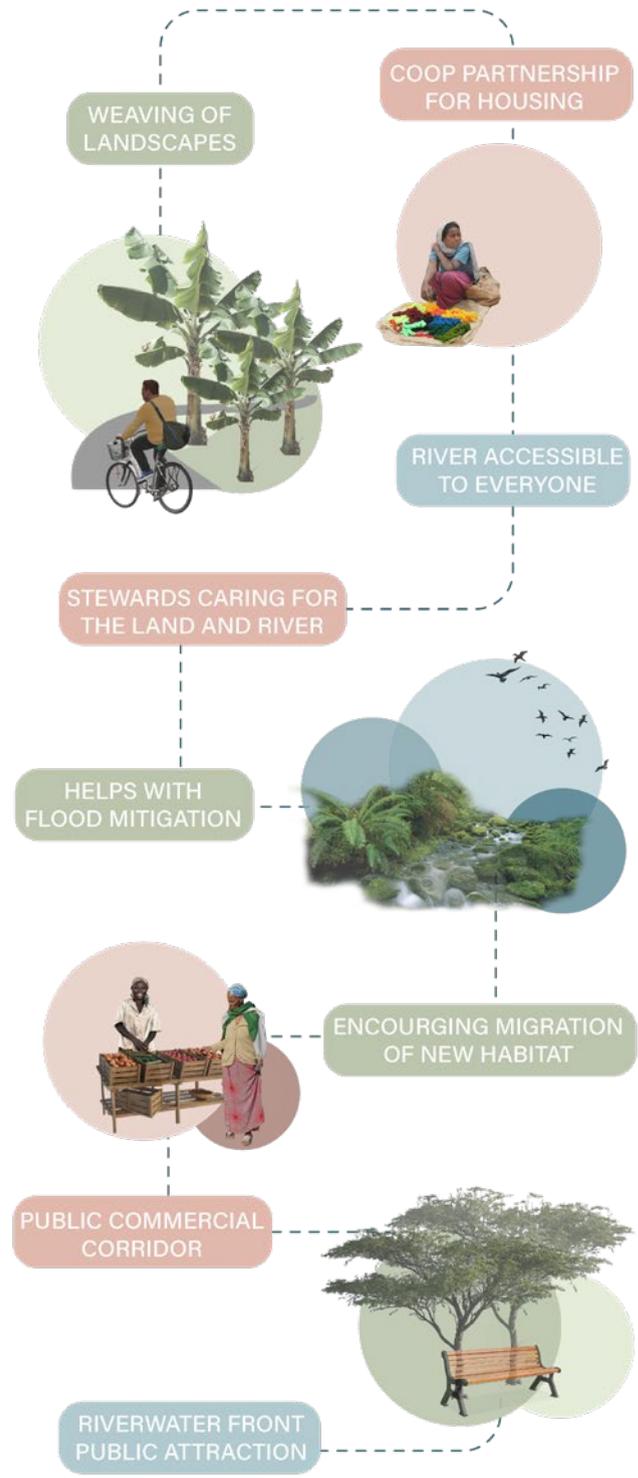
RIVERBANK FARMING

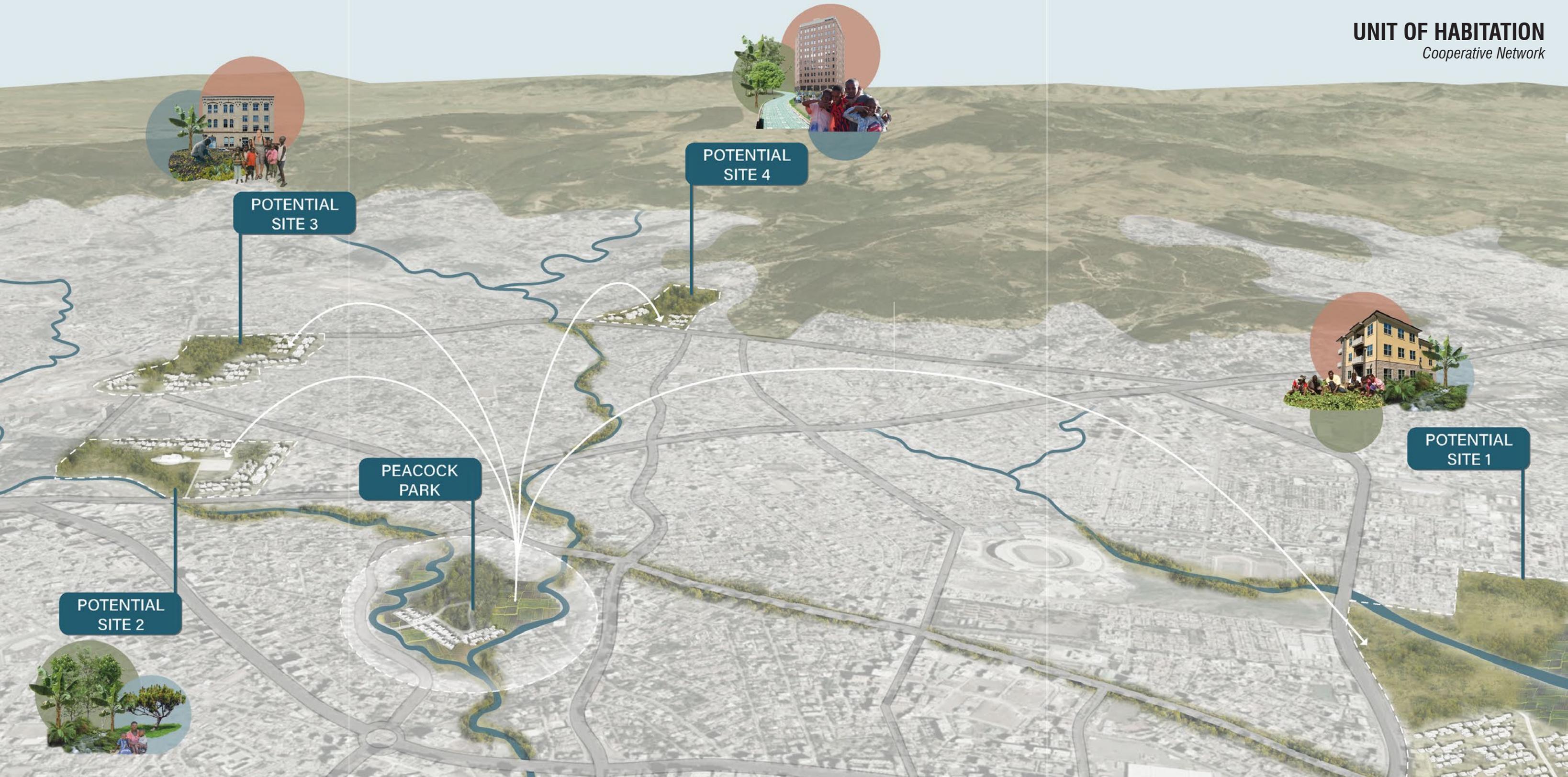
SECONDARY BUSINESS

LOCAL MARKET

MINI-VAN STOP

STEWARDSHIP





POTENTIAL SITE 3

POTENTIAL SITE 4

PEACOCK PARK

POTENTIAL SITE 1

POTENTIAL SITE 2





02

FALL 2019

URBAN DESIGN STUDIO II  
THE CLIMATE CRISIS: GREEN NEW DEAL IN THE HUDSON VALLEY

## Green it, Clean it!

*“Revitalization of IBM-Tech city through a phytoremediation process”*

**IBM Tech City, Kingston, New York**

Instructor: Kaja Kühl, Jerome Haferd, David Smiley, Dragana Zoric

Team: Danwei Pan, Pratibha Singh, Zixuan Zhang

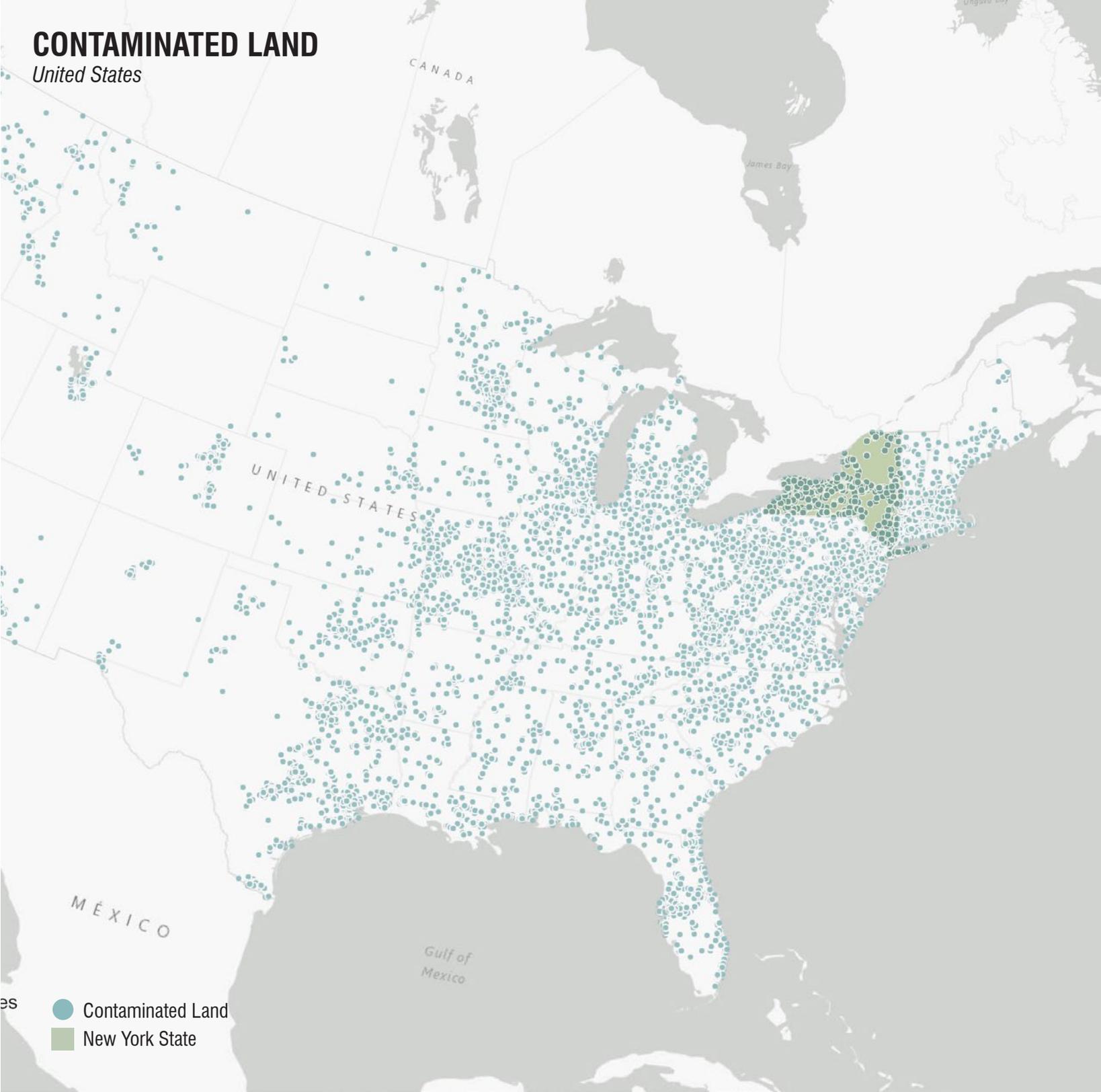
Around 130,000 acres of land in the Hudson Valley have been contaminated by the direct and indirect influence of industries. Our project proposes to transform these wastelands into community assets that can tackle contamination, while improving soil health, sequestering carbon and restoring the productivity of the land.

This process enables us to open up the site to the people and develop further relationships with the surroundings, providing recreational and economic benefits for the community.

The programs generate a wide range of jobs in research and manufacturing sectors, as well as low skilled maintenance jobs, supporting the low income and deindustrialized communities and strengthening the local economy. These sites become places for continued research and education about nature as an enabling infrastructure.

# CONTAMINATED LAND

United States

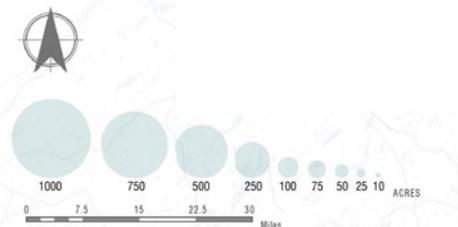
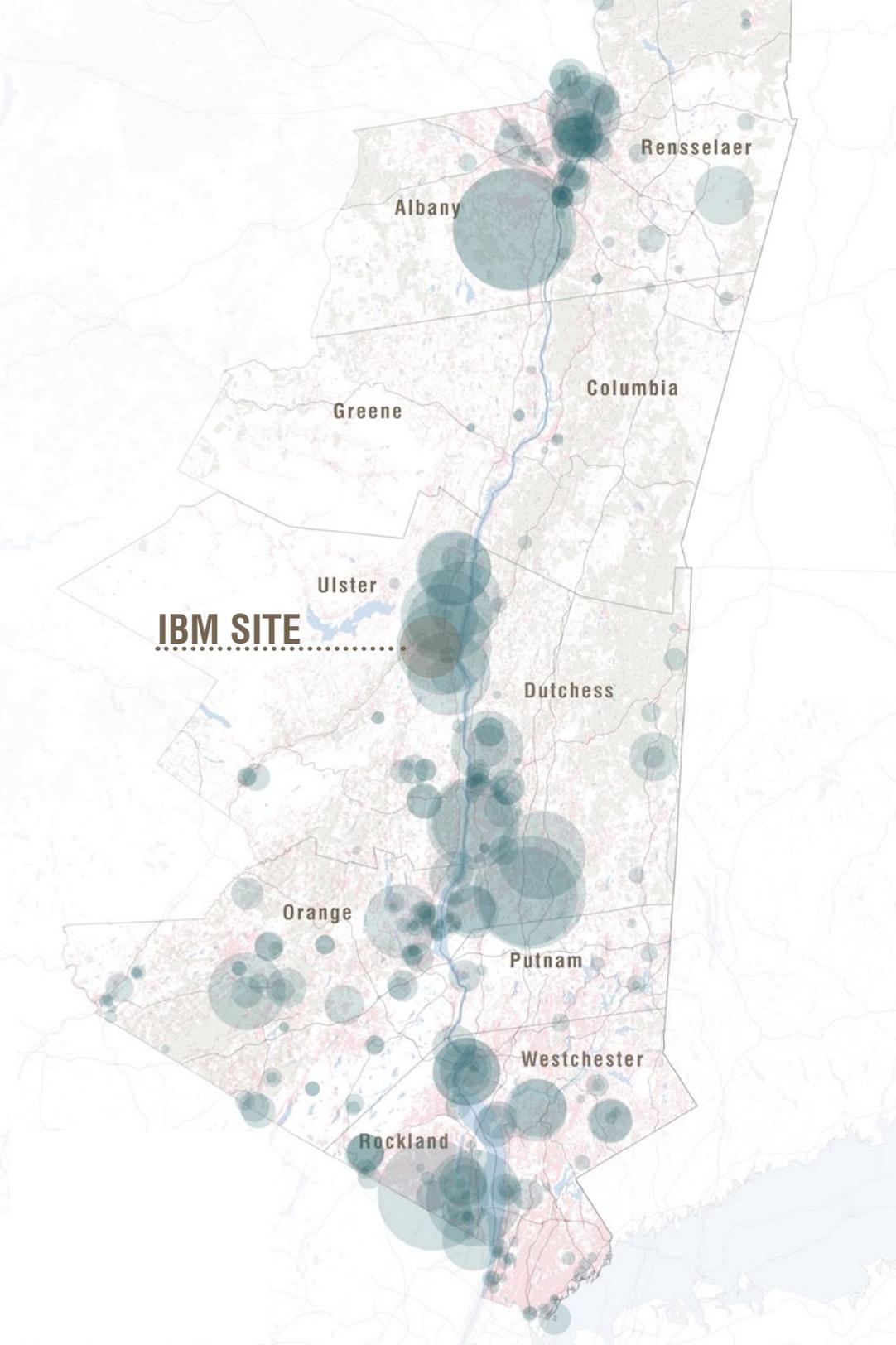


- Contaminated Land
- New York State

# CONTAMINATED SITES

Hudson Valley

132,243  
ACRES



- Urban development Area
- Forest Area

# IBM KINGSTON, NY

*Hudson Valley*

The former IBM manufacturing site north of Kingston was abandoned in 1992. Once an economic engine for Ulster County, the site is now an economic and environmental liability.

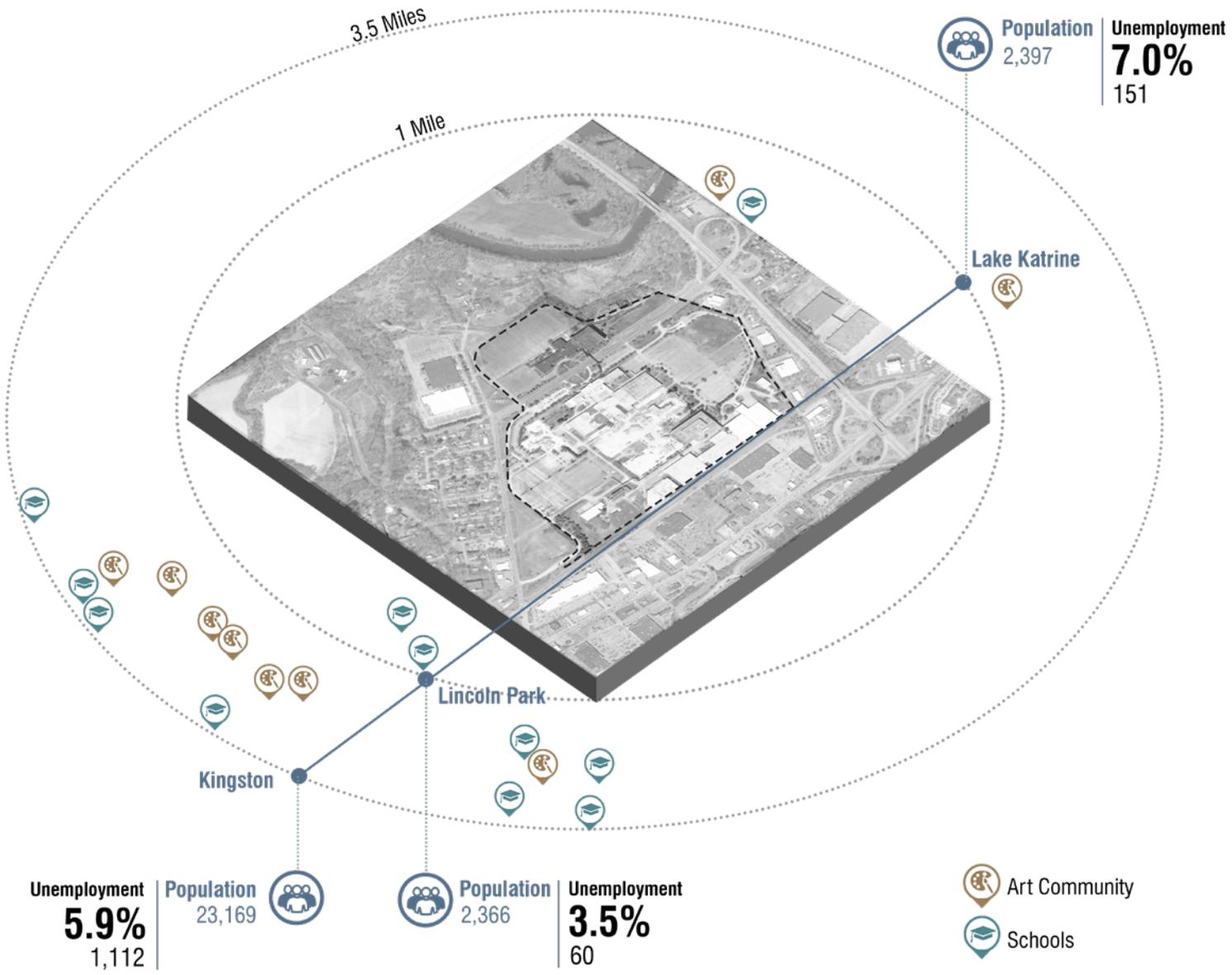


**7,000 +  
JOBS LOST**

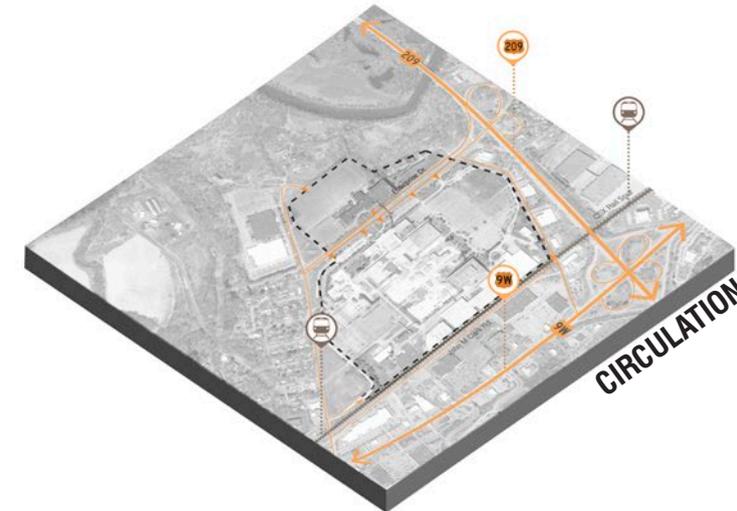


# SITE ANALYSIS

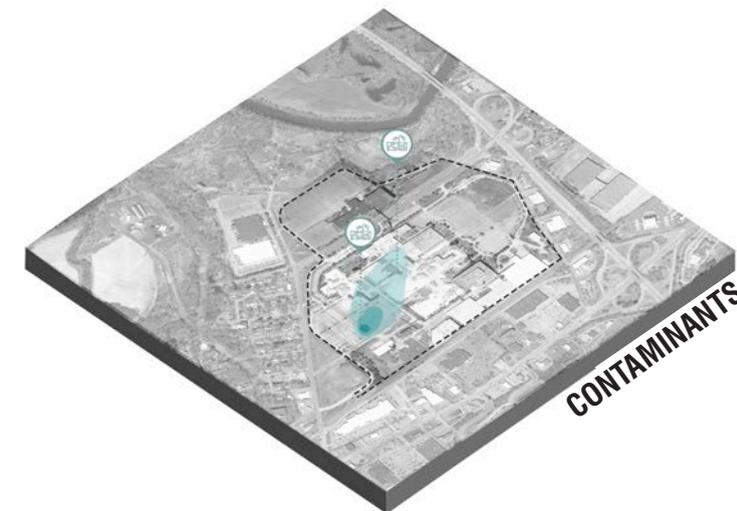
IBM Kingston, NY



- Property Area: 200 Acres
- Demolished Area: 19 Acres
- Industrial: 20 Acres
- Data Center/ Industrial: 16 Acre
- Mixed Use: 10 Acres
- Parking: 39 Acres
- Office: 3 Acres

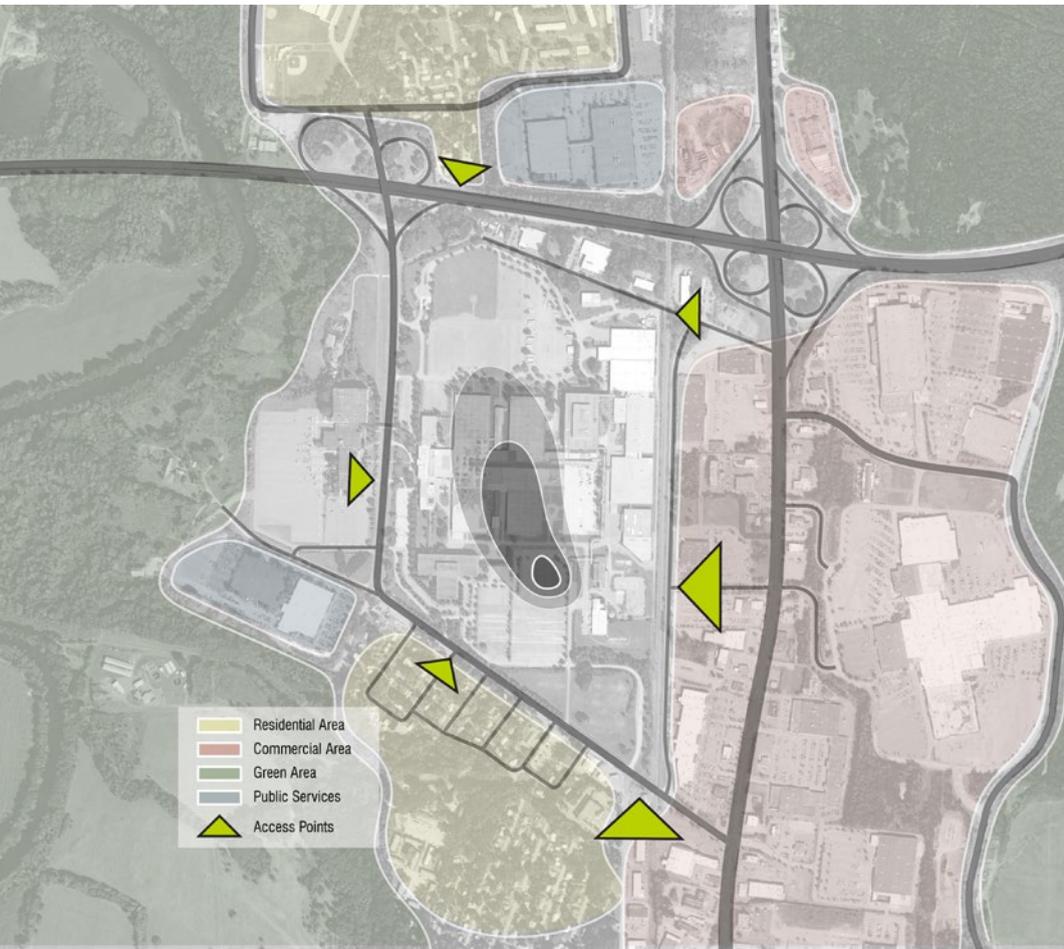


- IBM Site
- Access Point
- Highway
- Roads



- MAJOR CONTAMINANTS**
- TCEs Trichloroethane, Trichloroethylene
  - PCE Perchloroethylene (Organic Volatile Compounds - VOCs)
  - 40 Area of spread of the plume





After being demolished, our site is still isolated, left with plenty of vacant space. In order to revitalize IBM, we start from contamination. The polluted area is located in the middle of our site, with 40 acres area and directing to the Northwest.



We create 6 access points to the natural, commercial and residential area of surroundings. Then we make the connections and invert out to reach the neighborhood, a green armature that can support different programs on our site.

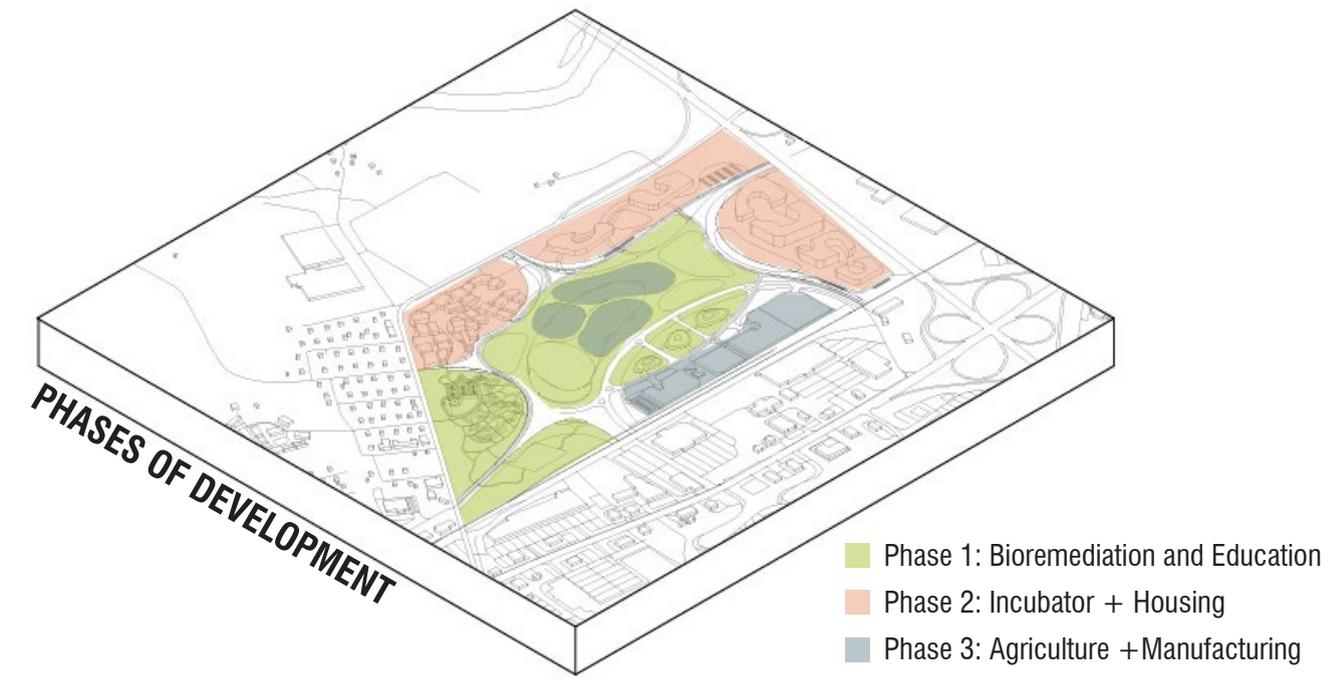
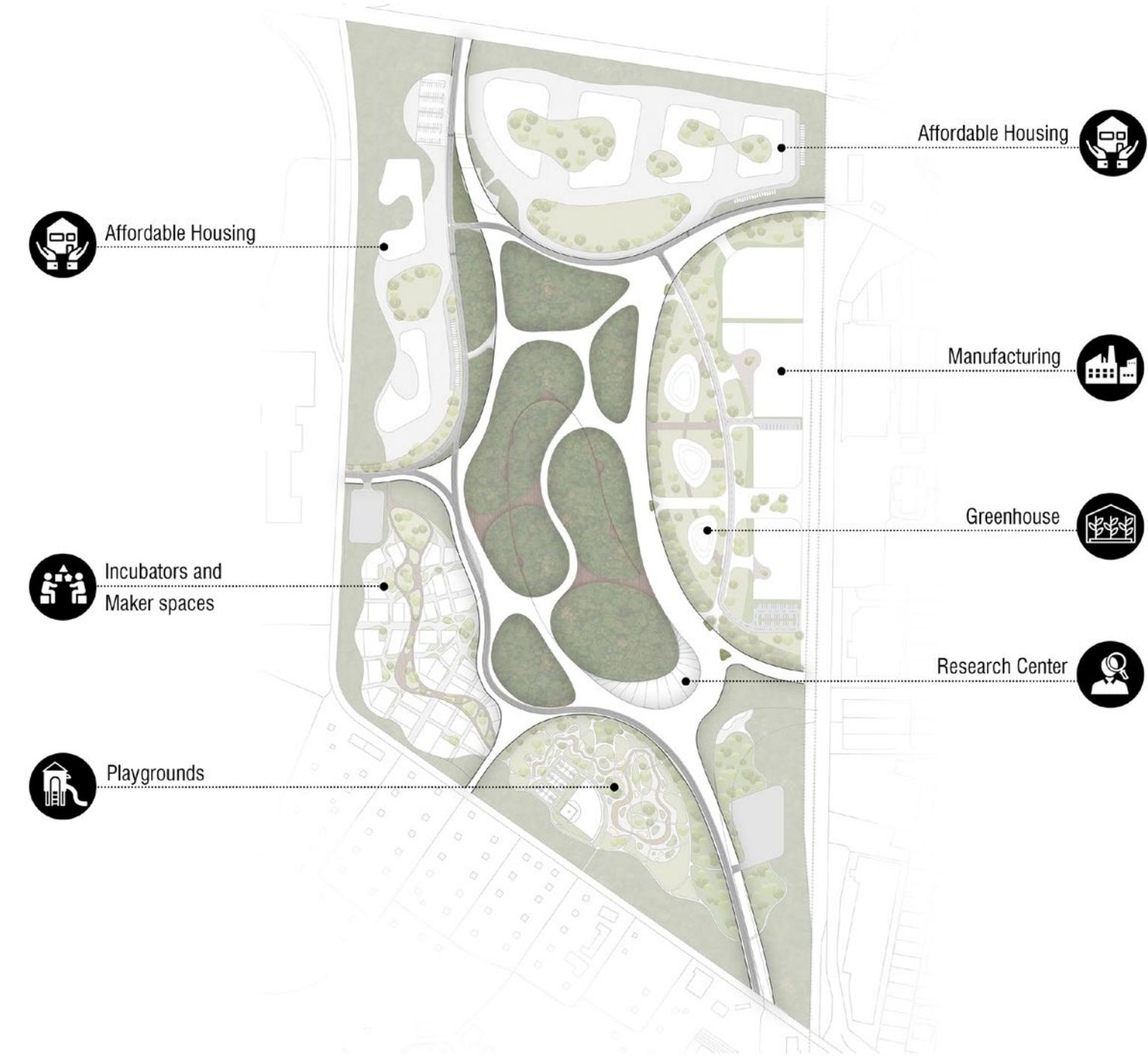


The phytoremediation garden sits at the middle with the research center located beside the plume shape. Housing is provided for people who work on site and nearby. This area is incubator space that can be rented out to small businesses.

Sports fields and playgrounds will be located on the interface to the community. Our project has 3 main focuses: Phytoremediation & education; Production; Living & Recreation

# CONCEPT DIAGRAM

New land use



# SYSTEMS

New IBM Kingston site



- Plume
- Armature Space

- Bicycle Lane
- Surrounding Transportation
- Internal Transportation
- P Parking Lots

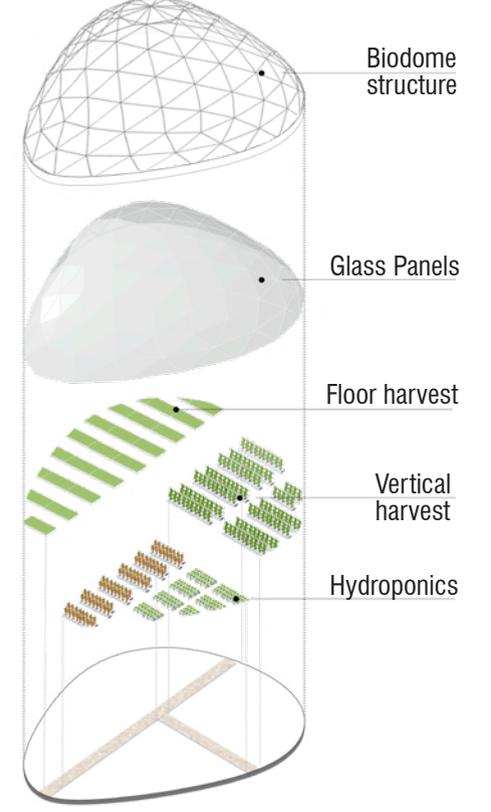
- Research Center
- City Living Room
- Sport Field & Playground
- Incubators & Maker Spaces
- Green Houses
- Manufacturing
- Affordable Housing

- Phase 1
- Phase 2
- Phase 3

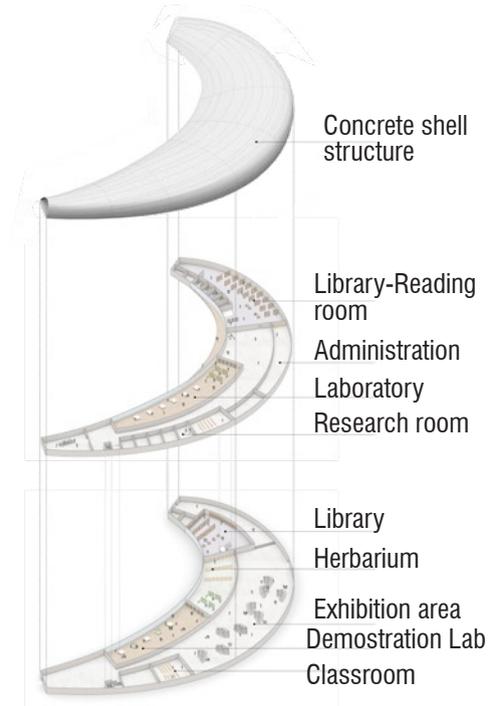


- LEGEND**
- 1 - Research Center
  - 2 - Phytoremediation Garden
  - 3 - Winter Garden
  - 4 - Pollinator Garden
  - 5 - Greenhouse
  - 6 - Farm to Table Copackers
  - 7 - Food Processing Center
  - 8 - Indoor soccer fields
  - 9 - Affordable Housing
  - 10 - Incubators
  - 11 - Playfields
  - 12 - Playground
  - 13 - Trail

## GREENHOUSE



## RESEARCH CENTER





## Pollinator Garden

## Winter Garden

## Phytoremediation Garden

## Research Center

- Trees**
- Canadian Serviceberry  
*Amelanchier canadensis*
  - Red Maple  
*Acer rubrum*
  - White Birch  
*Betula populifolia*
- Shrubs**
- Wild Rhododendron  
*Rhododendron maximum*
  - Sweet Viburnum  
*Viburnum lentago*
  - Lowbush Blueberry  
*Vaccinium angustifolium*
- Perennials**
- Marsh Blazing Star  
*Liatris scariosa*
  - Black-eyed Susan  
*Rudbeckia hirta*
  - Butterfly Milkweed  
*Asclepias tuberosa*

- Trees**
- Eastern Red Cedar  
*Juniperus virginiana*
  - Green Hawthorn  
*Crataegus viridis*
  - American Holly  
*Ilex opaca*
- Shrubs**
- False Cypress  
*Chamaecyparis obtusa*
  - Inkberry  
*Ilex glabra*
  - 'Jolly Red' Winterberry  
*Ilex verticillata*
- Perennials**
- Eastern Blazing Star  
*Liatris scariosa*
  - Switchgrass  
*Panicum virgatum*

- Trees**
- Willow  
*Salix spp.*
  - Red Mulberry  
*Morus rubra*
  - Loblolly Pine  
*Pinus taeda*
  - Eastern cottonwoods  
*Populus deltoides*
  - Hybrid Poplar  
*Populus t. x Populus deltoides*
- Annuals**
- Alfalfa  
*Medicago sativa*
  - Bermuda grass  
*Cynodon dactylon*
- Perennials**
- Hairy Goldenrod  
*Solidago hispida*

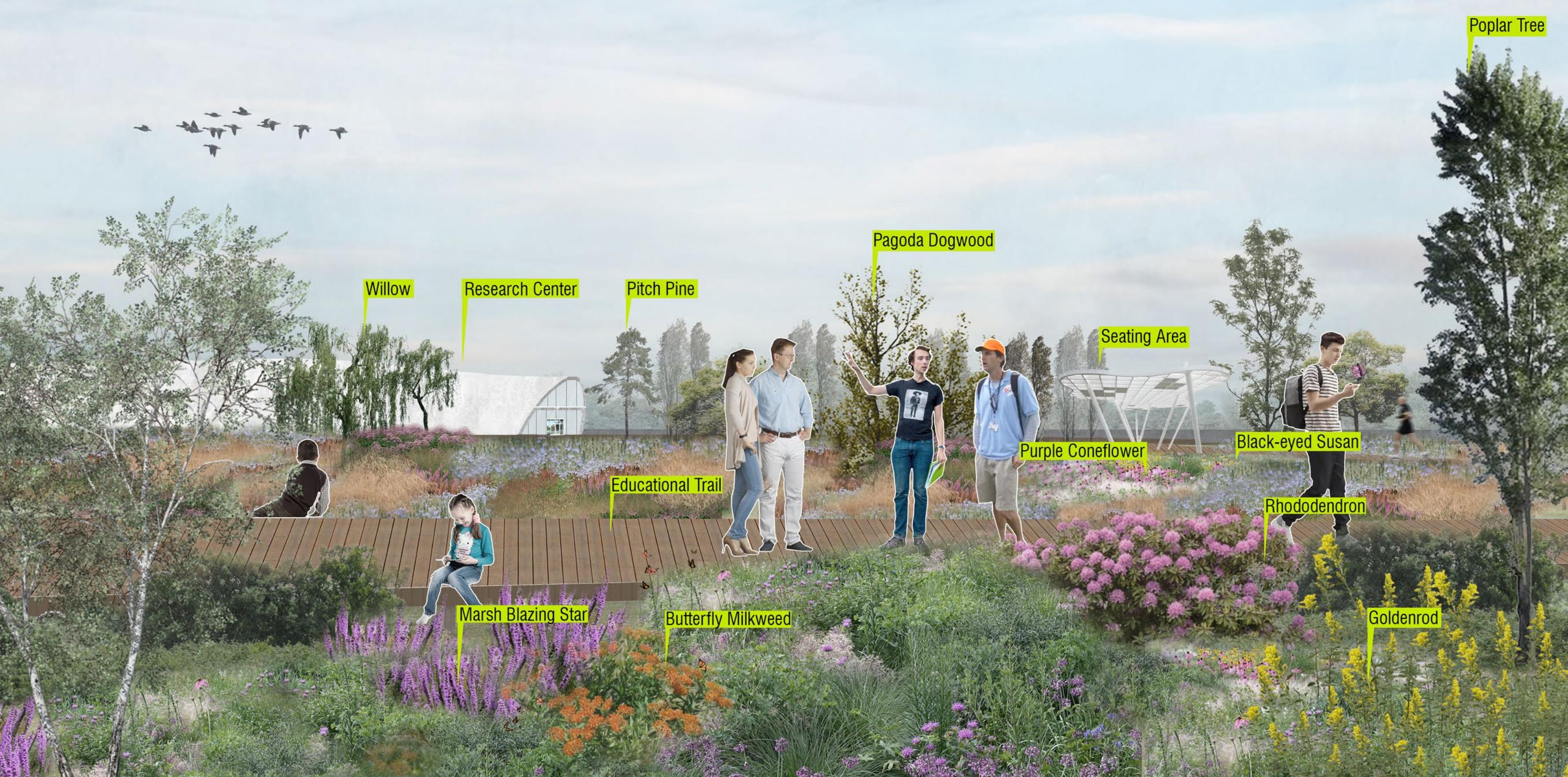


Adjacent Neighborhood

Sportsfield

Business Incubator

Natural Playground



Poplar Tree

Pagoda Dogwood

Willow

Research Center

Pitch Pine

Seating Area

Purple Coneflower

Black-eyed Susan

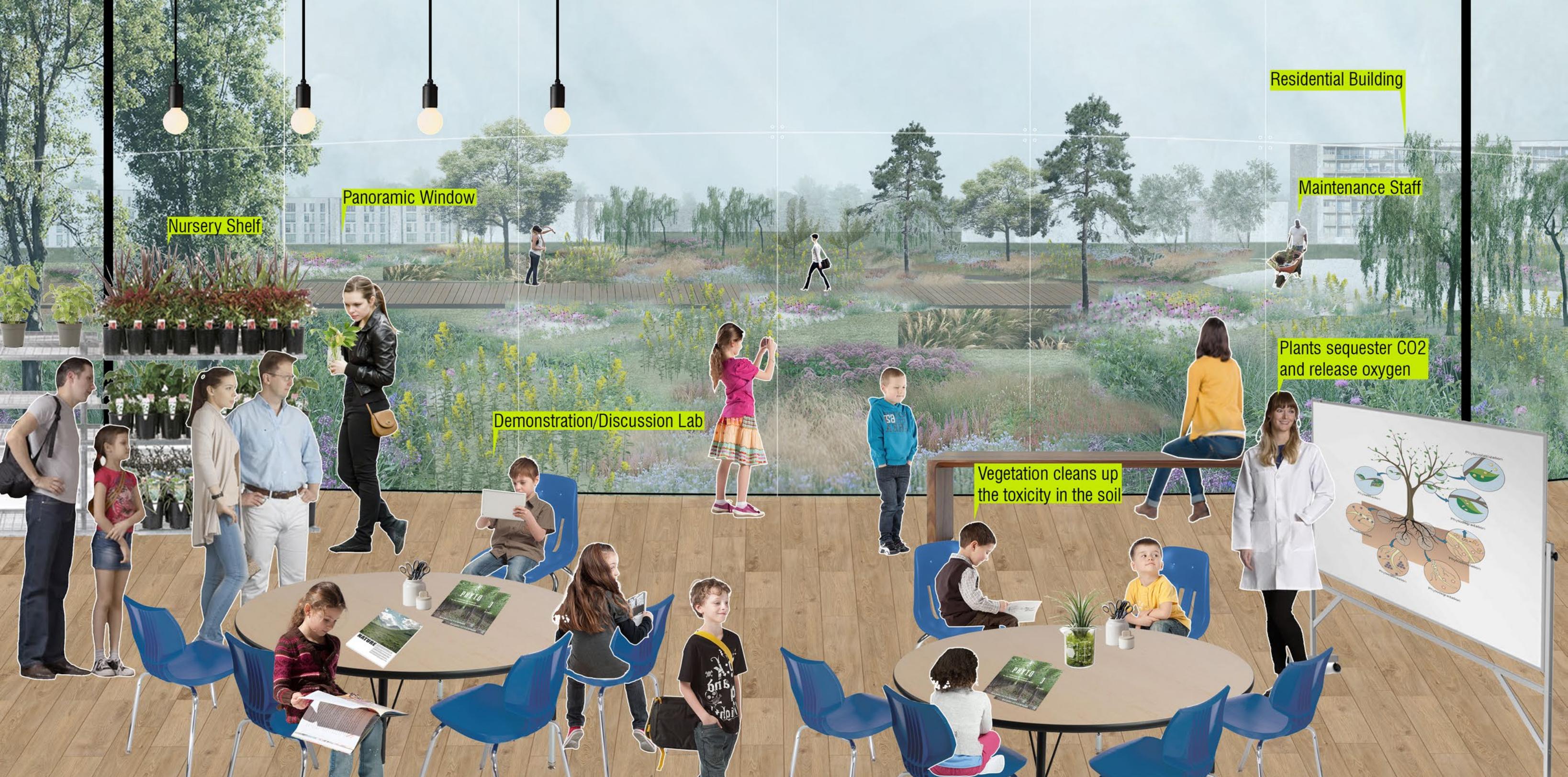
Educational Trail

Rhododendron

Marsh Blazing Star

Butterfly Milkweed

Goldenrod



Residential Building

Panoramic Window

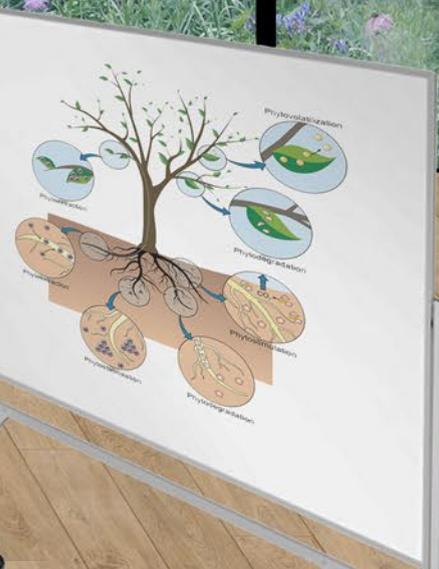
Nursery Shelf

Maintenance Staff

Plants sequester CO2 and release oxygen

Demonstration/Discussion Lab

Vegetation cleans up the toxicity in the soil





Greenhouse

Affordable Housing

Food Processing Center

Farmer Markets





03

SUMMER 2019

URBAN DESIGN STUDIO I  
URBAN DESIGN THROUGH TRANSFORMATIVE SYSTEMS

## The Hackensack River waterfront

*“A new equitable Transport Orientated neighborhood”*

**Hackensack river, Jersey city, New Jersey**

Instructor: Tricia Martin, Nans Voron

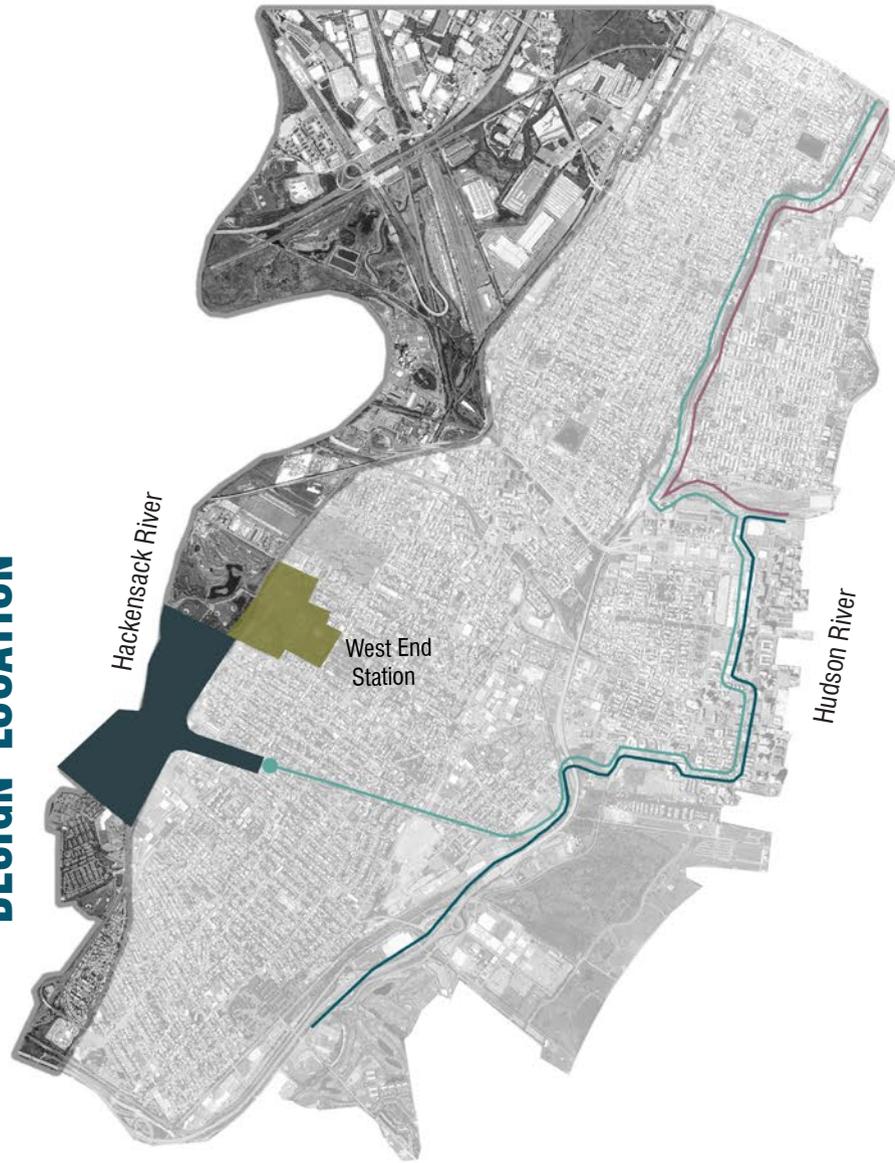
Team: Zhou Wu, Angus Palmer

The Hackensack River side of Jersey City is regarded as the forgotten part of town by its residents. The intended design site is bookended by Lincoln Park and the imminent Bayfront Development. The primary objective of the design is to create an equitable transport orientated locality that benefits the existing community, and will also instigate future urban growth. This vision can be achieved through the enhancement of three correlated systems that have a distinct reliance upon each other.

Firstly, the locality needs to be better connected with effective sustainable transport options. This will provide an opportunity to create a unique multi-functional retail setting around the transit hubs.

The development of community initiatives in the retail area, will serve the purpose of providing assistance and support to the existing lower income households. This will ensure local networks can be developed,

**DESIGN LOCATION**



**HACKENSACK WATERFRONT**

- Established industry to the north
- Detached from public transport
- Low population density
- Mixed property values
- Medium to low income households



**CENTRAL JERSEY CITY**

- Mixed zoning and land use
- Partially connected with public transport
- Mixed population density
- Lower property values
- Lower income households



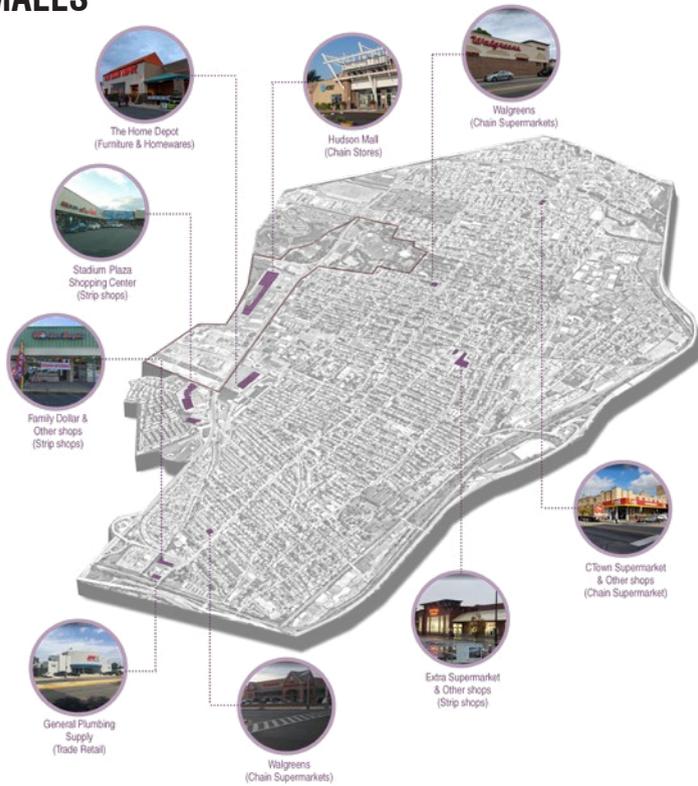
**HUDSON WATERFRONT**

- High rise development & port connections
- Well connected with public transport
- High population density
- High property values
- Medium to high income households

# DISPARITY OF JERSEY CITY

Retail options

## MALLS

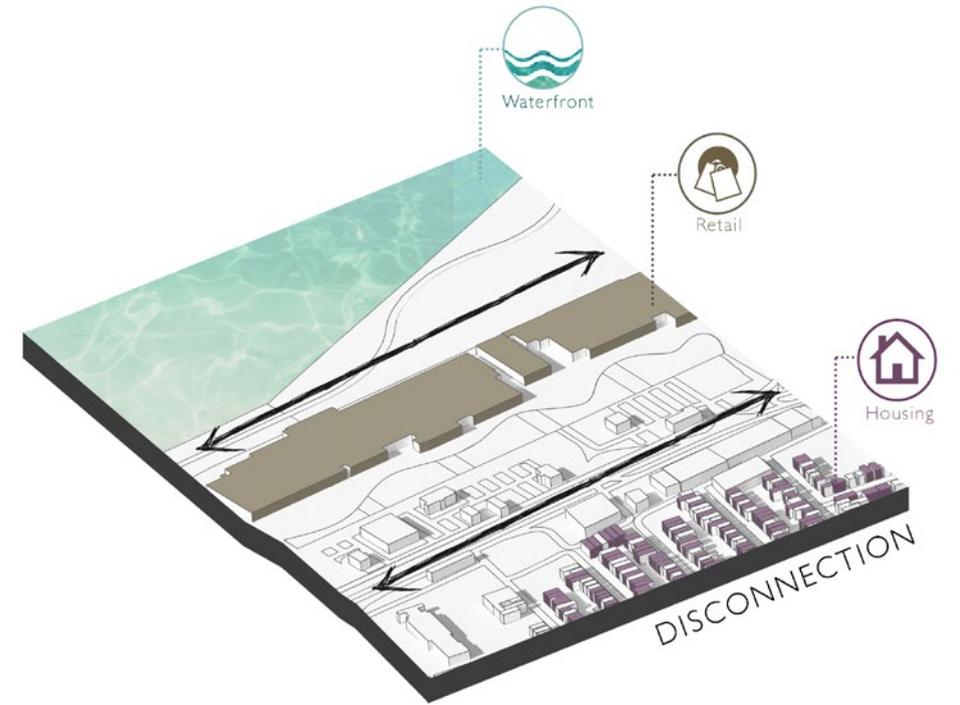


## FOOD OPTIONS

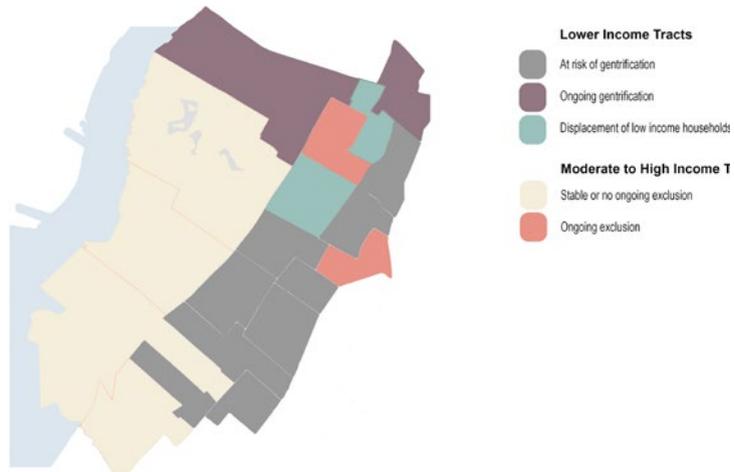


# SPATIAL DISCONNECTION

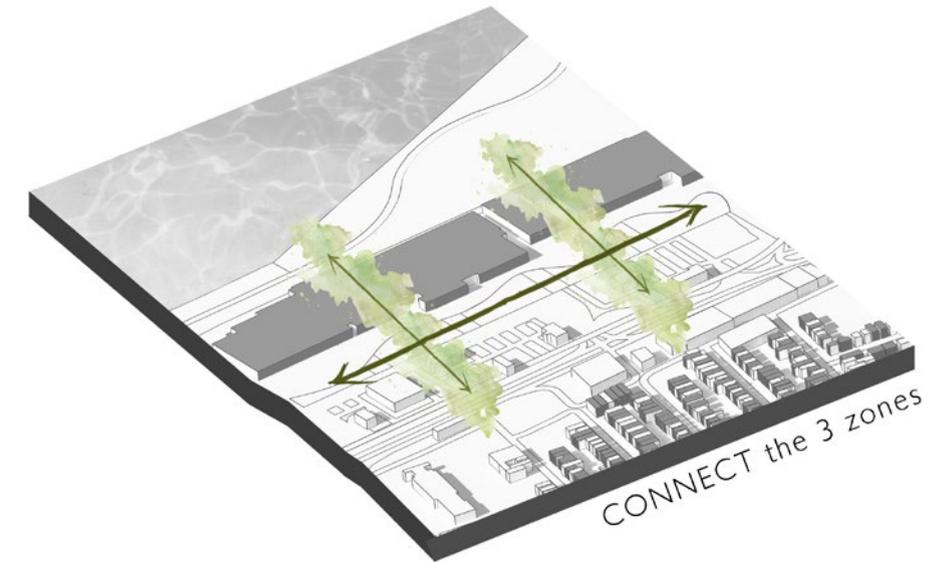
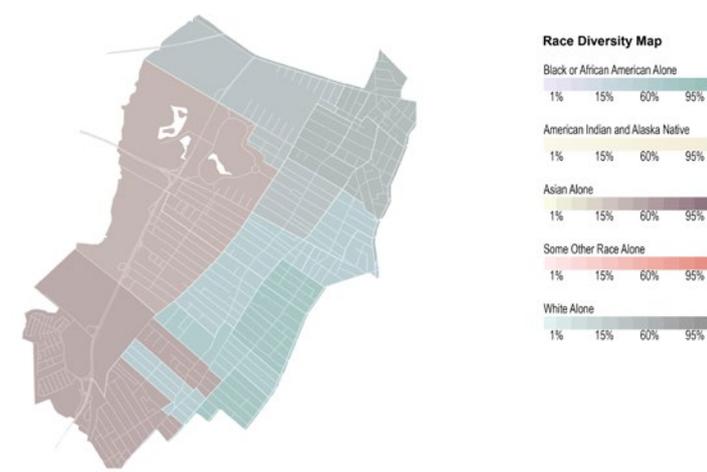
Hackensack river



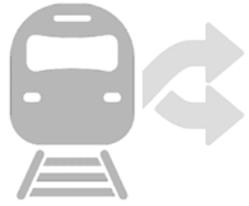
## GENTRIFICATION AND DISPLACEMENT



## CULTURAL DIVERSITY



# CONNECTIVITY



Expand the light rail line into the site and improve ease of movement for sustainable transit and pedestrians.

Will promote **urban growth**.

Will **anchor retail**.

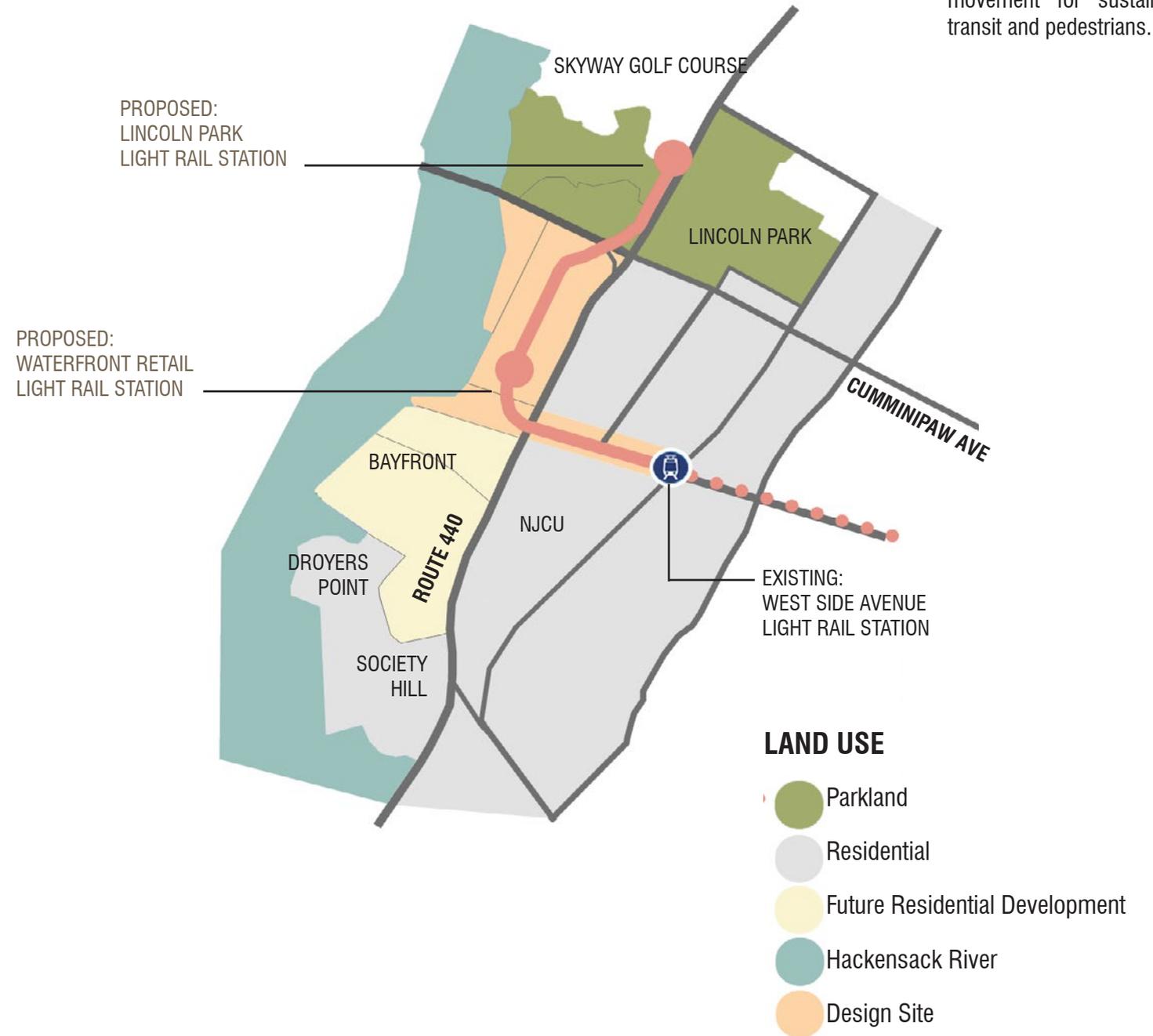
Will improve **access to jobs** and **create economic opportunity** for low-income and working families.



# LIGHT RAIL EXTENSION

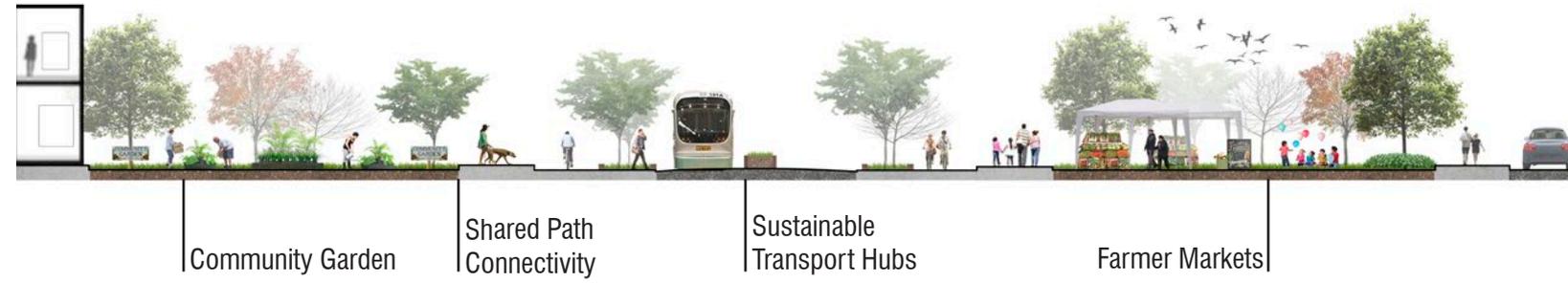
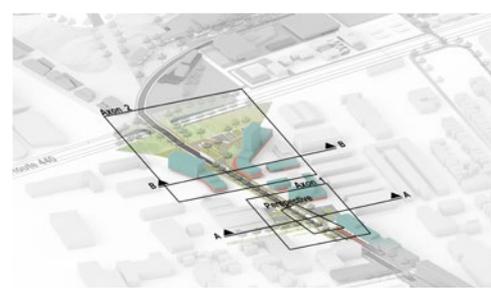
*Hackensack river*

Expand the light rail line into the site and improve ease of movement for sustainable transit and pedestrians.

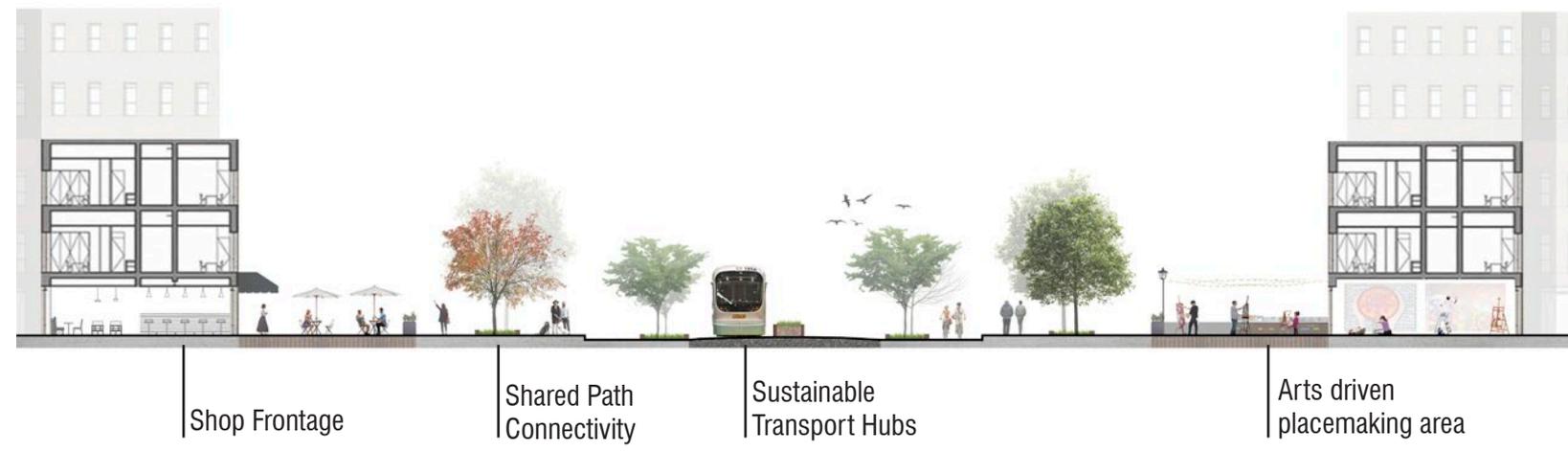


# MOVEMENT SYSTEMS

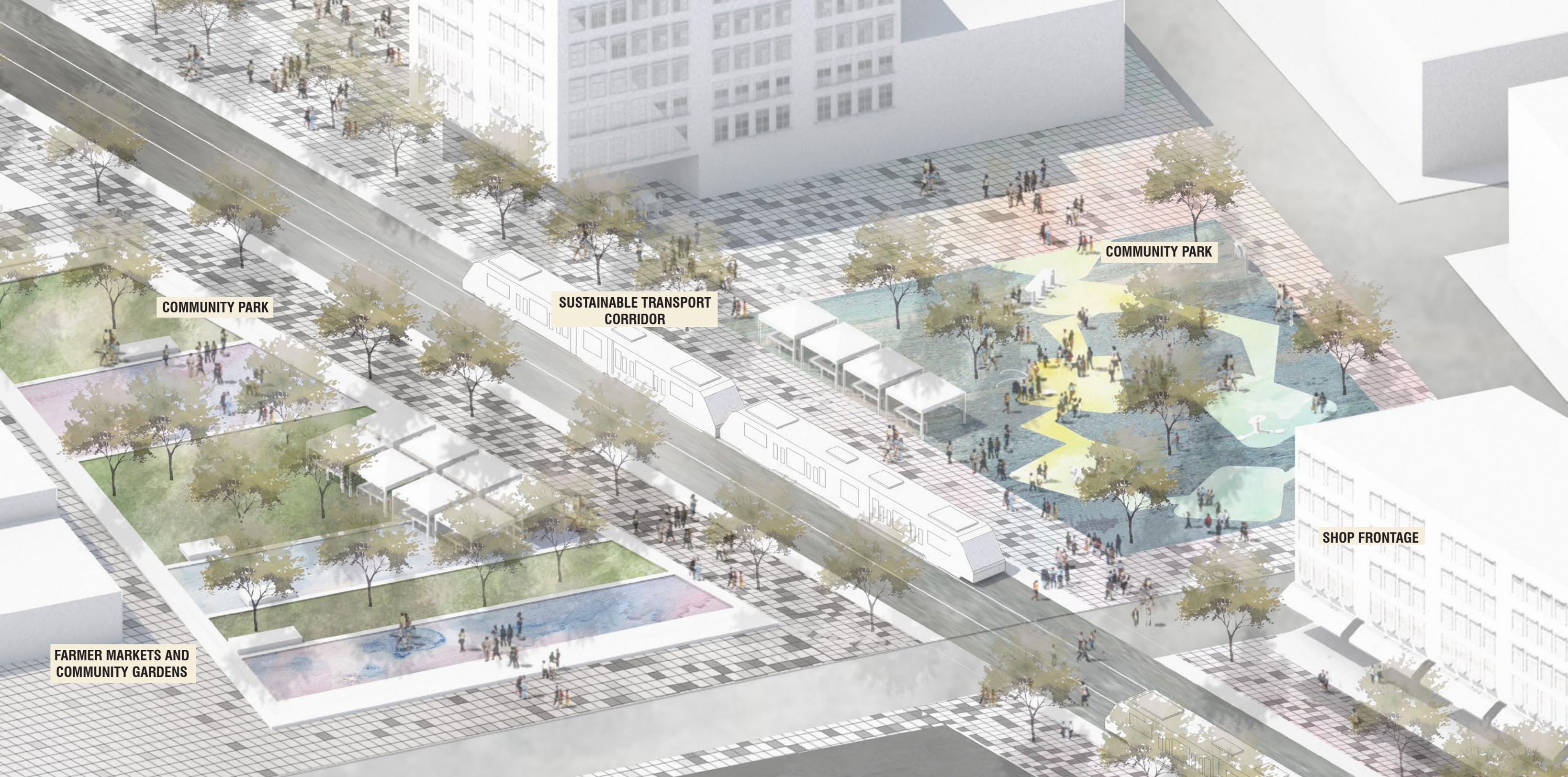
Hackensack river



## SECTION A - A



## SECTION B - B



**COMMUNITY PARK**

**SUSTAINABLE TRANSPORT  
CORRIDOR**

**COMMUNITY PARK**

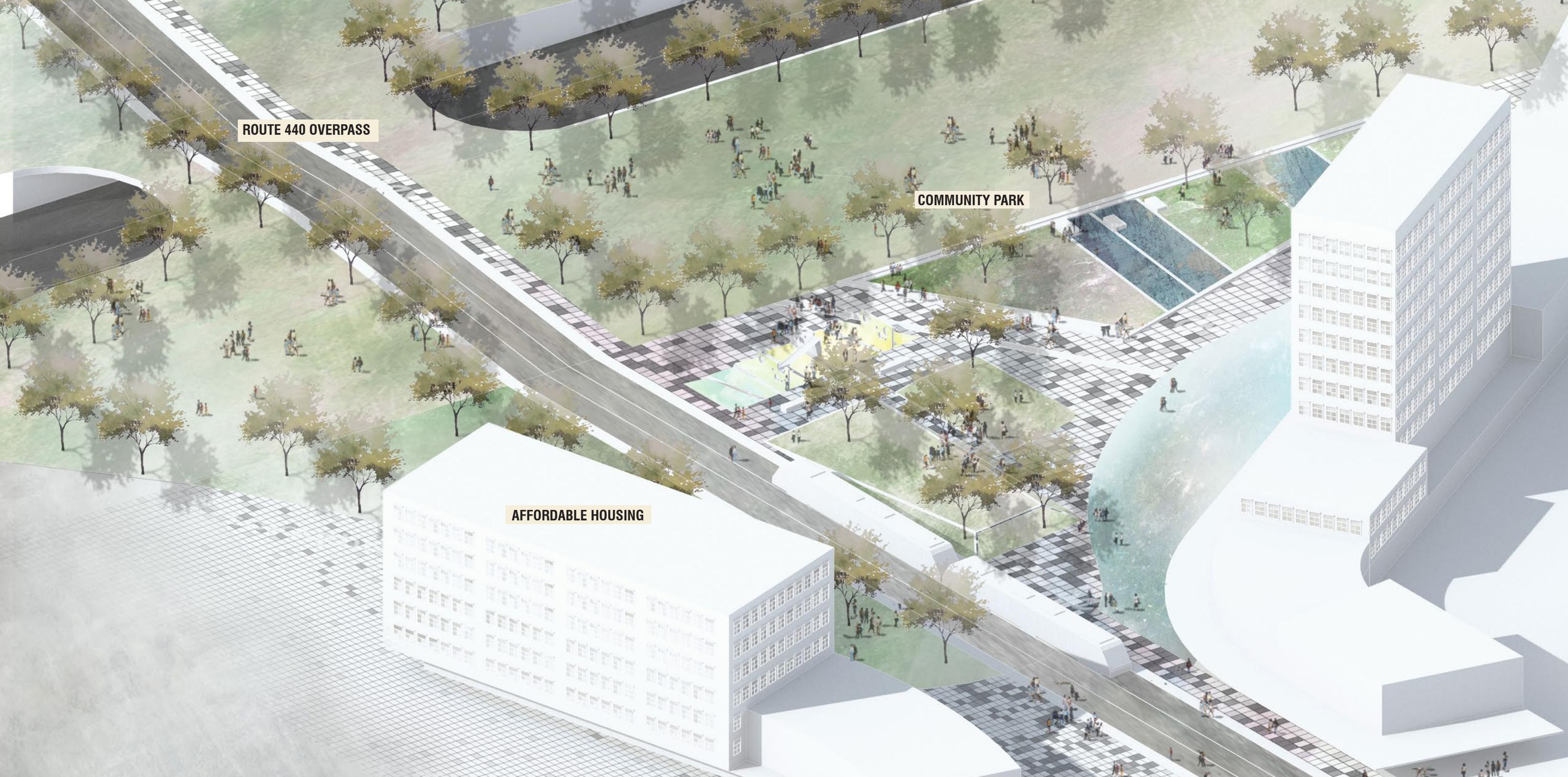
**FARMER MARKETS AND  
COMMUNITY GARDENS**

**SHOP FRONTAGE**

**ROUTE 440 OVERPASS**

**COMMUNITY PARK**

**AFFORDABLE HOUSING**



# RETAIL

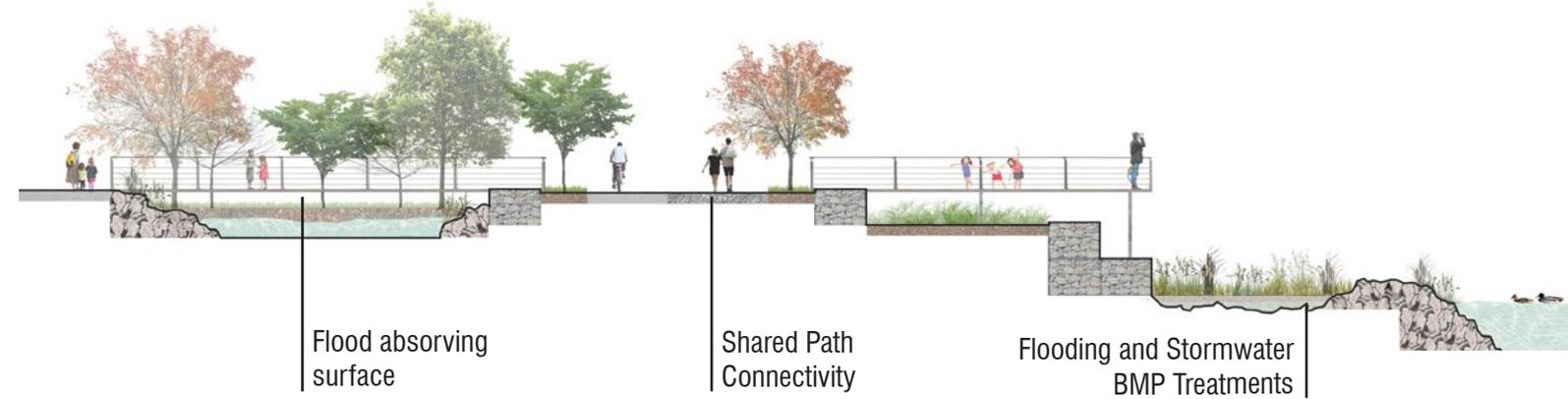
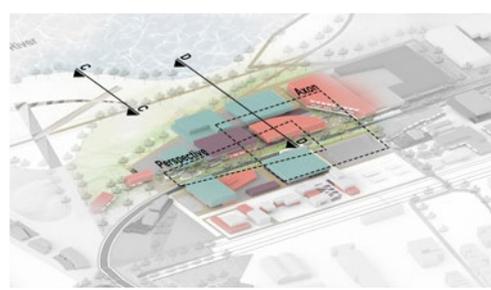


Create a multi-functional location through new specific forms of retail and community based facilities.

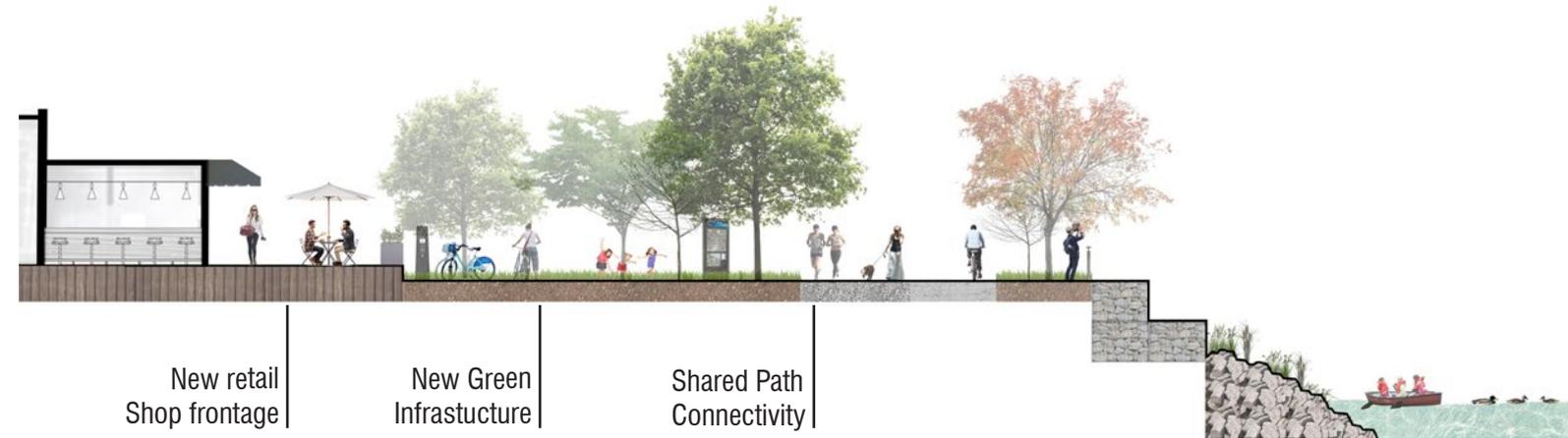
Create a multi-functional and unique setting.

Create a place that is destination as well as an experience

Create a retail identity that is reflective of the existing; and potential future demographic



## SECTION C - C



## SECTION D - D

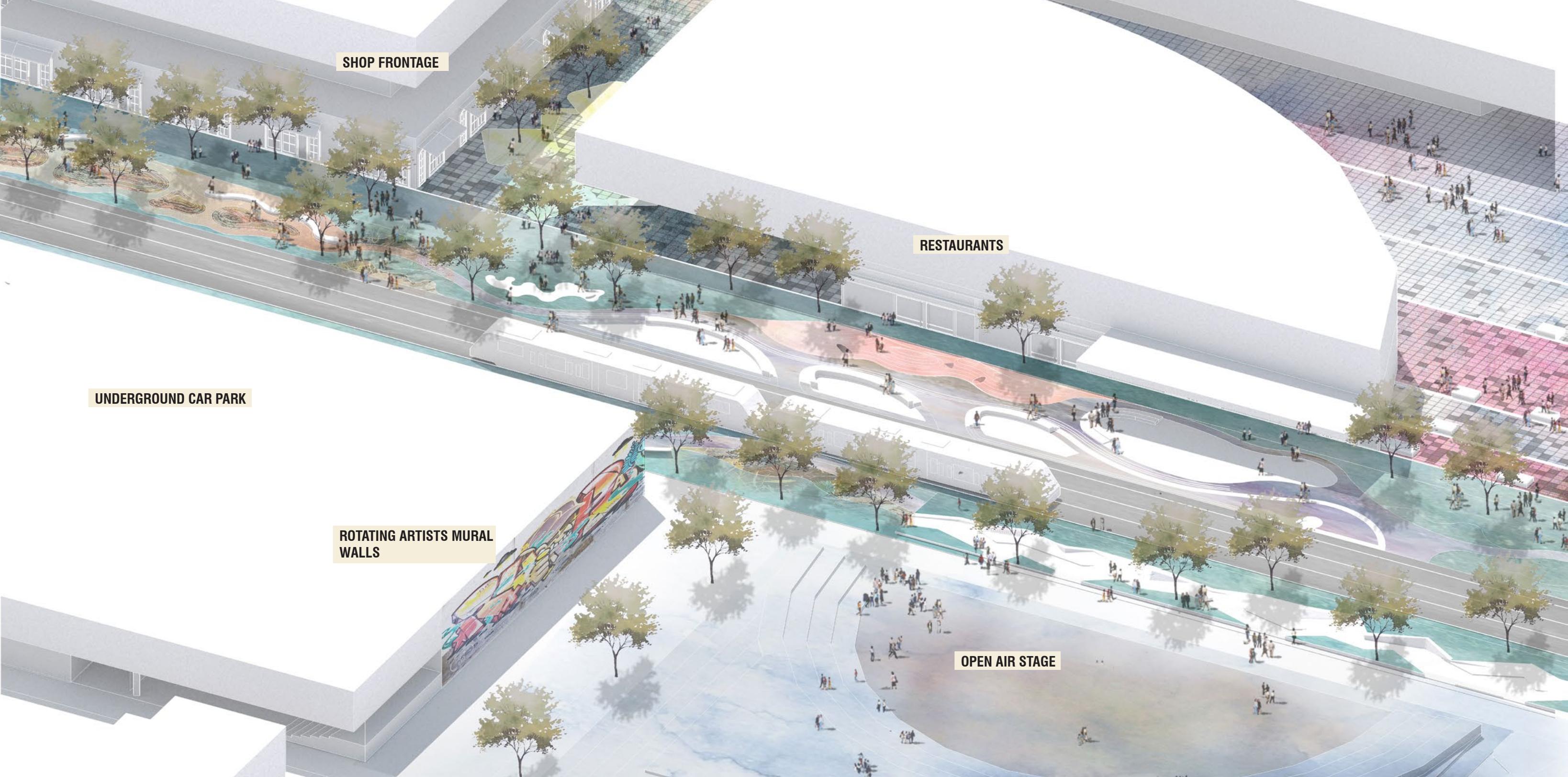
**SHOP FRONTAGE**

**RESTAURANTS**

**UNDERGROUND CAR PARK**

**ROTATING ARTISTS MURAL WALLS**

**OPEN AIR STAGE**



# COMMUNITY INITIATIVES



Support local communities through economic and social initiatives and networks

Provide support initiatives to ensure existing residents aren't displaced.

Provide assistance to the existing community so they can maintain and develop their networks and business opportunities.

Provide mechanisms that promote the diversity of the local identity; whereby enriching the uniqueness of their retail location



## FOOD AND URBAN AGRICULTURE

-  NIGHT MARKETS
-  FARMER MARKETS
-  COMMUNITY GARDENS
-  SALES TO LOCAL FOOD PROVIDERS & VENDORS



## ECONOMIC AND LOCAL BUSINESS SUPPORT

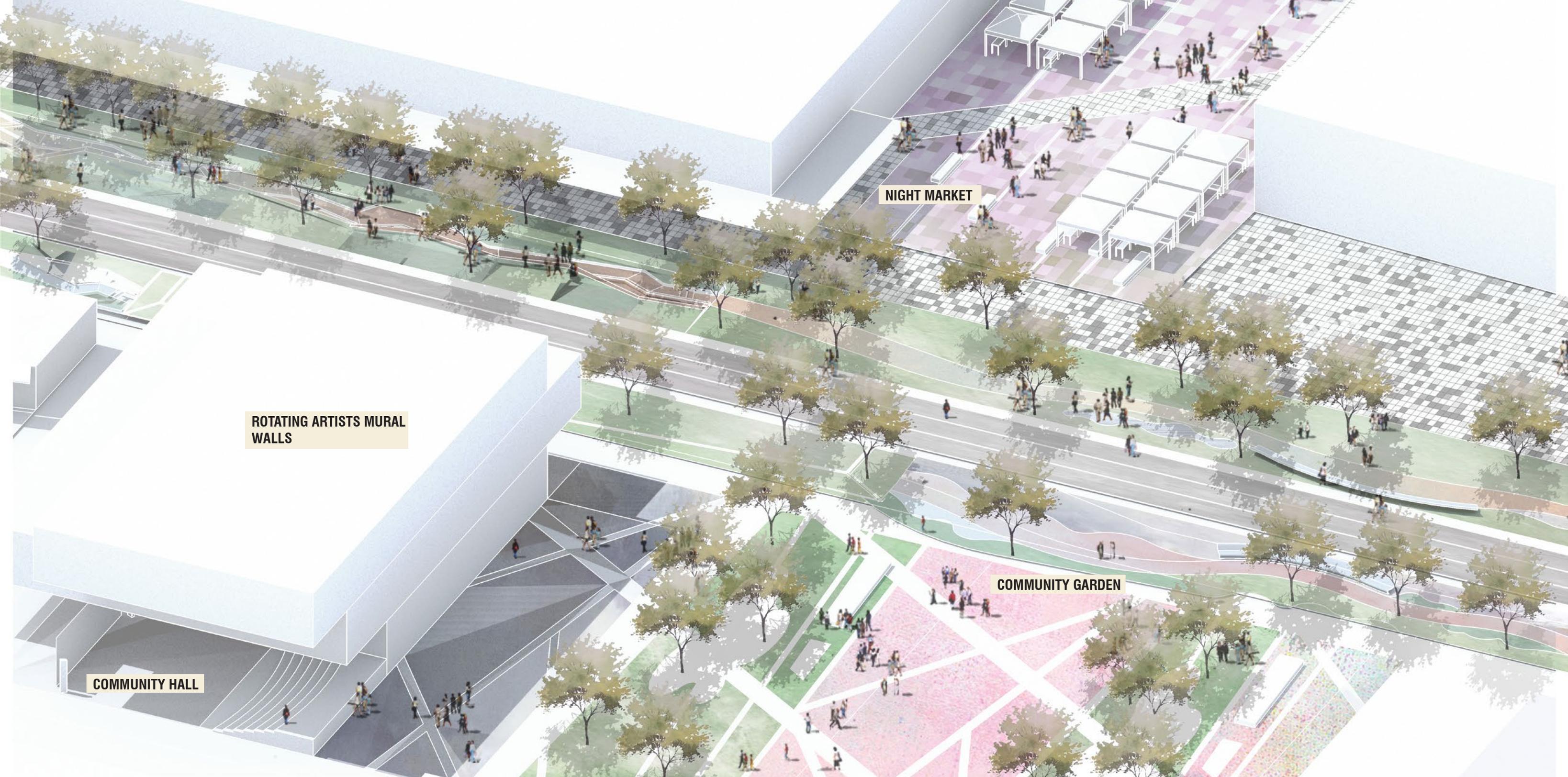
-  ORGANIZATION & NETWORKS
-  JOB & SKILLS TRAINING
-  INCENTIVES FOR NEW BUSINESSES
-  AFFORDABLE OFFICE SPACE



## ARTS DRIVEN PLACE MAKING

-  WORK PROMOTION
-  CREATIVE HUB & CENTER
-  ROTATING PUBLIC MURAL WALLS
-  SHARED STUDIO SPACE



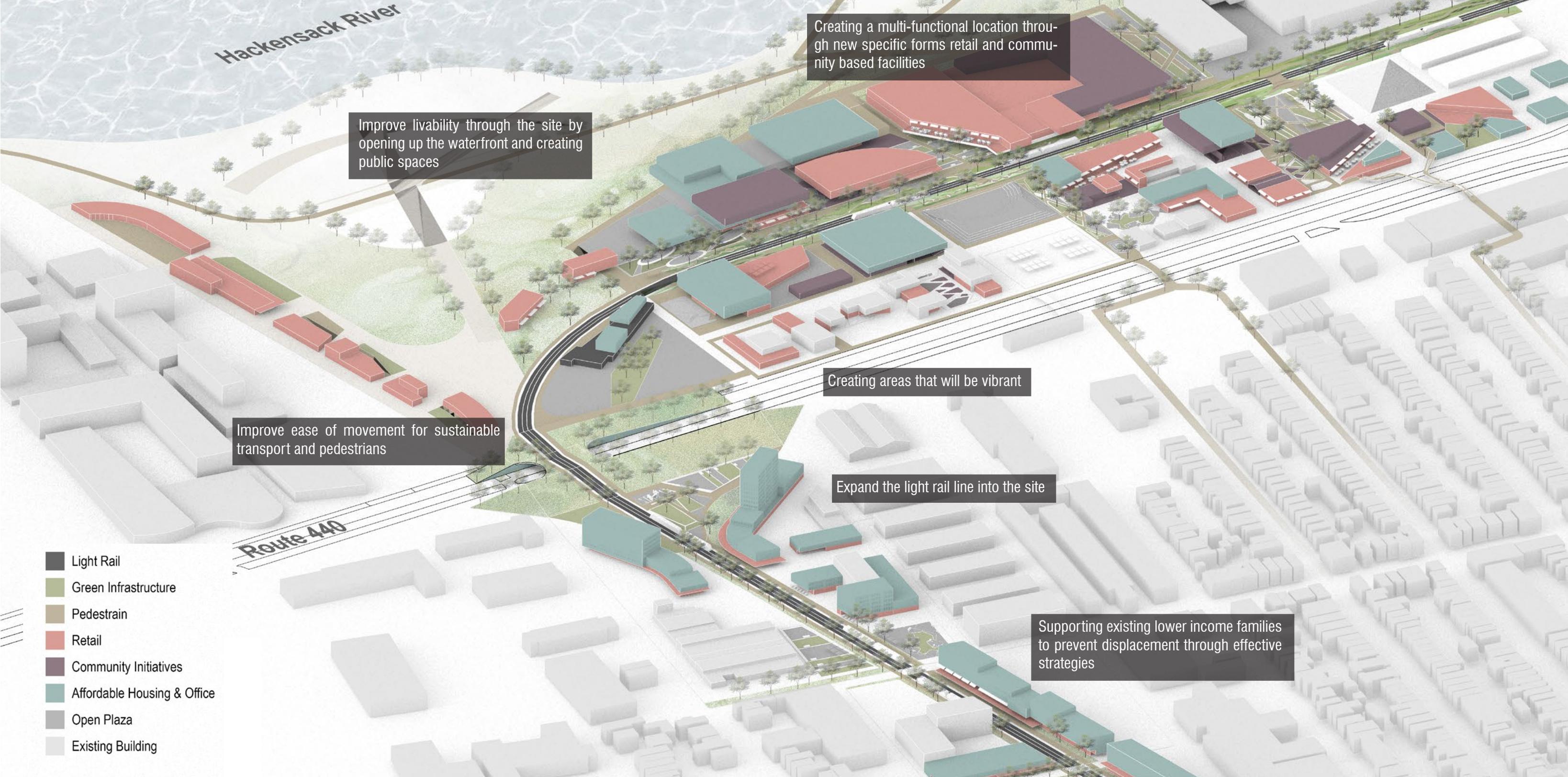


**NIGHT MARKET**

**ROTATING ARTISTS MURAL WALLS**

**COMMUNITY GARDEN**

**COMMUNITY HALL**



Hackensack River

Improve livability through the site by opening up the waterfront and creating public spaces

Creating a multi-functional location through new specific forms retail and community based facilities

Improve ease of movement for sustainable transport and pedestrians

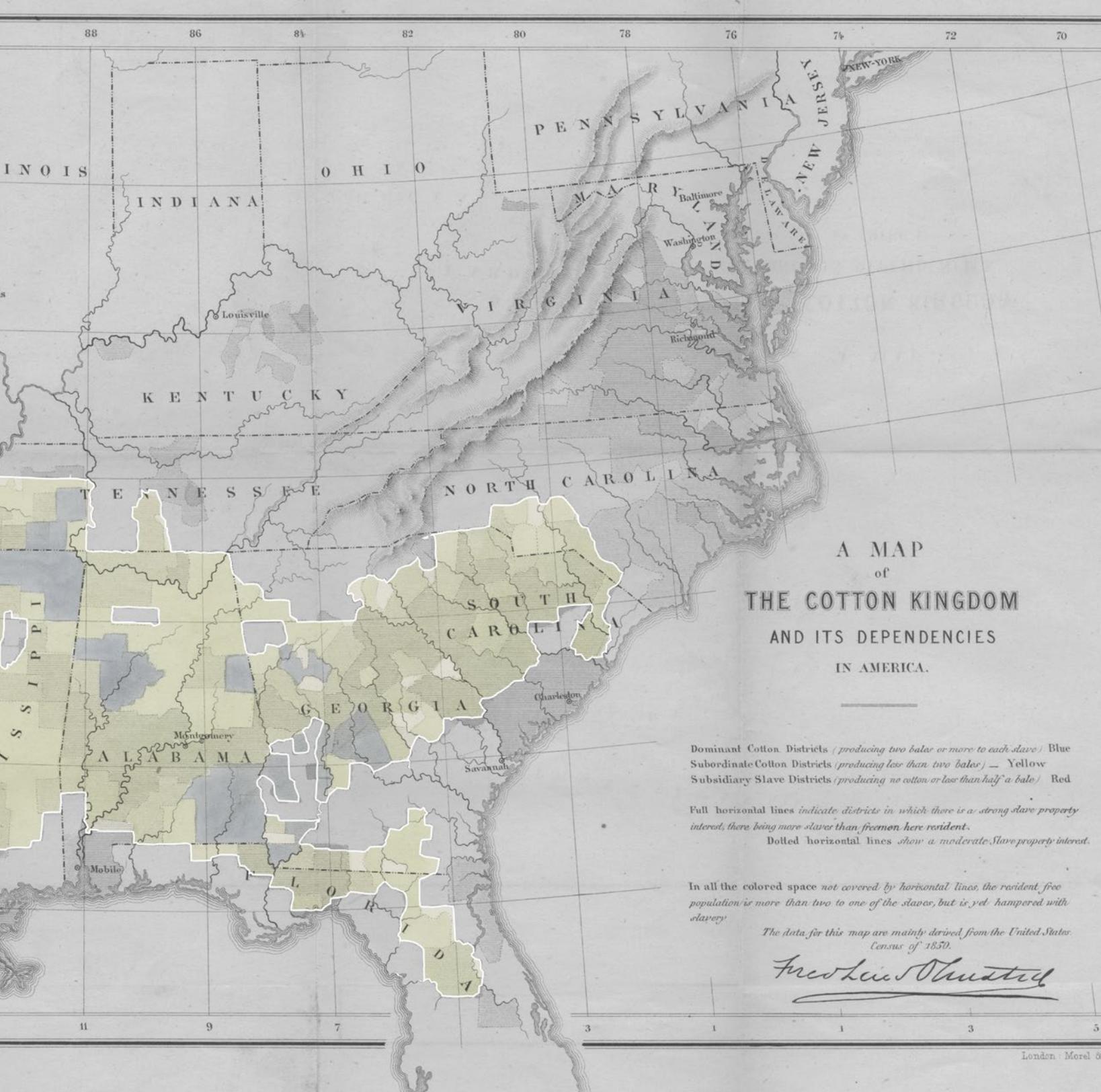
Creating areas that will be vibrant

Expand the light rail line into the site

Supporting existing lower income families to prevent displacement through effective strategies

- Light Rail
- Green Infrastructure
- Pedestrian
- Retail
- Community Initiatives
- Affordable Housing & Office
- Open Plaza
- Existing Building

Route 440



04

SPRING 2020

COTTON KINGDOM, NOW.

# Colfax and the Calhou Plantation

*"Perseverance over Politics and Plantation"*

**RED RIVER, COLFAX, LOUISIANA**

Instructor: Sara Zewde  
 Team: Alvi Rahman Khan

In 1850, Frederick Law Olmsted embarked on a knowledge-seeking journey from New Orleans to Texas. He visited a number of the largest cotton plantations in the South, including the Calhoun family estate in Louisiana. After Southern slaves were freed by Abraham Lincoln, these freedmen would start share-cropping and tenant-farming on the same or similar plantations of their former servitude, thus continuing their lives of extended indigency. Thereafter, a few large-scale plantations would transform into full-sized cities, due to acreage and population, such as the Calhoun estate.

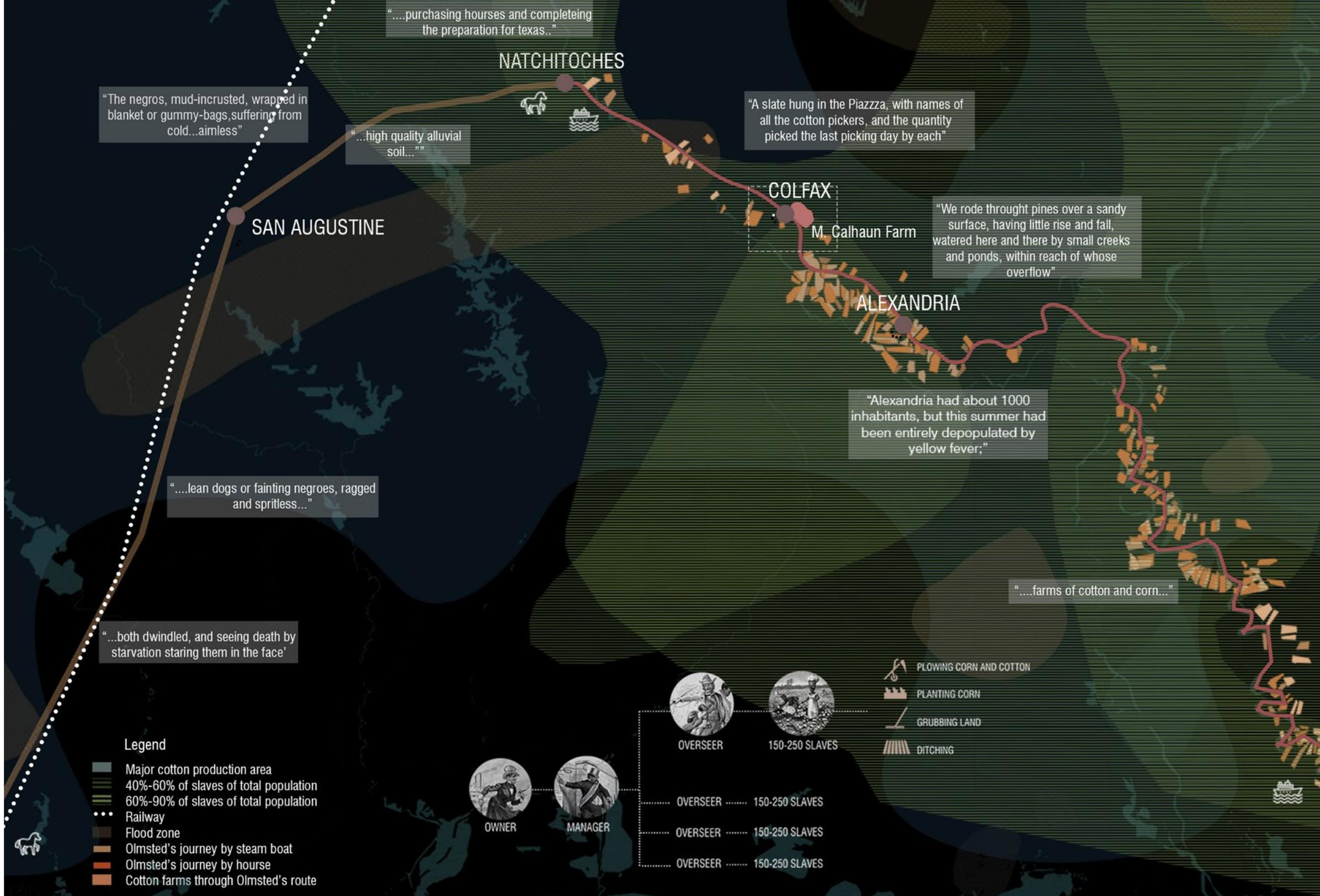
In 1869, part of the Calhoun estate would form the town of Colfax, with its citizenry comprised of a significant number of former slaves.

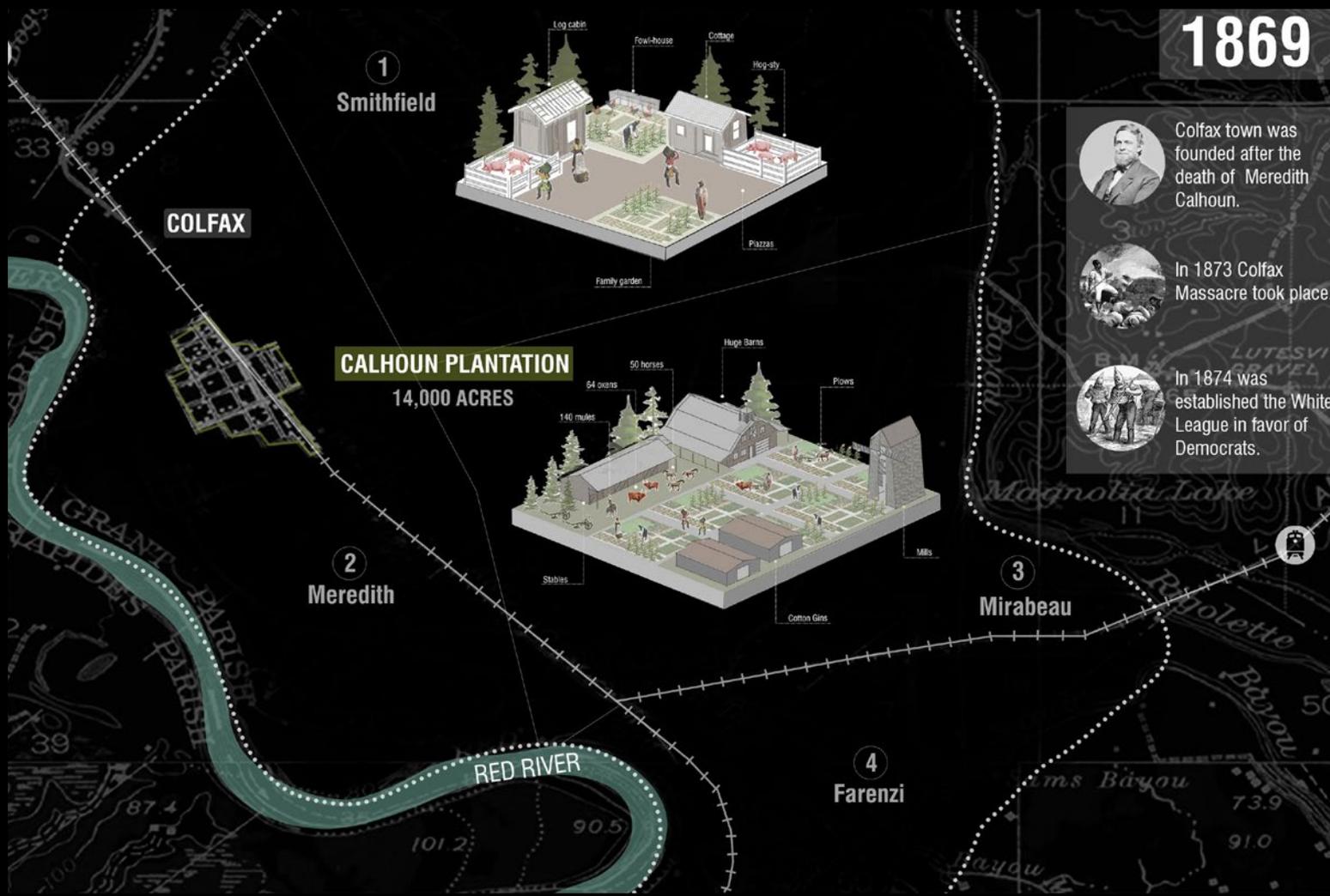
During Reconstruction, this black community would consistently have their inherent rights held in jeopardy, leading to racial tensions between the whites and blacks, along political party lines. This issue would ultimately reach its zenith in the Colfax Massacre, in which 153 African Americans were murdered by white Southerners.

After the Voting Rights Act, blacks received empowerment through the right to vote. However, due to gerrymandering and other acts of disenfranchisement, they were deprived of black representatives. Today, Colfax has a population of 70% African Americans and a black mayor, yet sadly, 46% of the population is impoverished.

# VISUAL LITERARY ANALYSIS

Colfax, *The red river and the Calhoun cotton plantation*





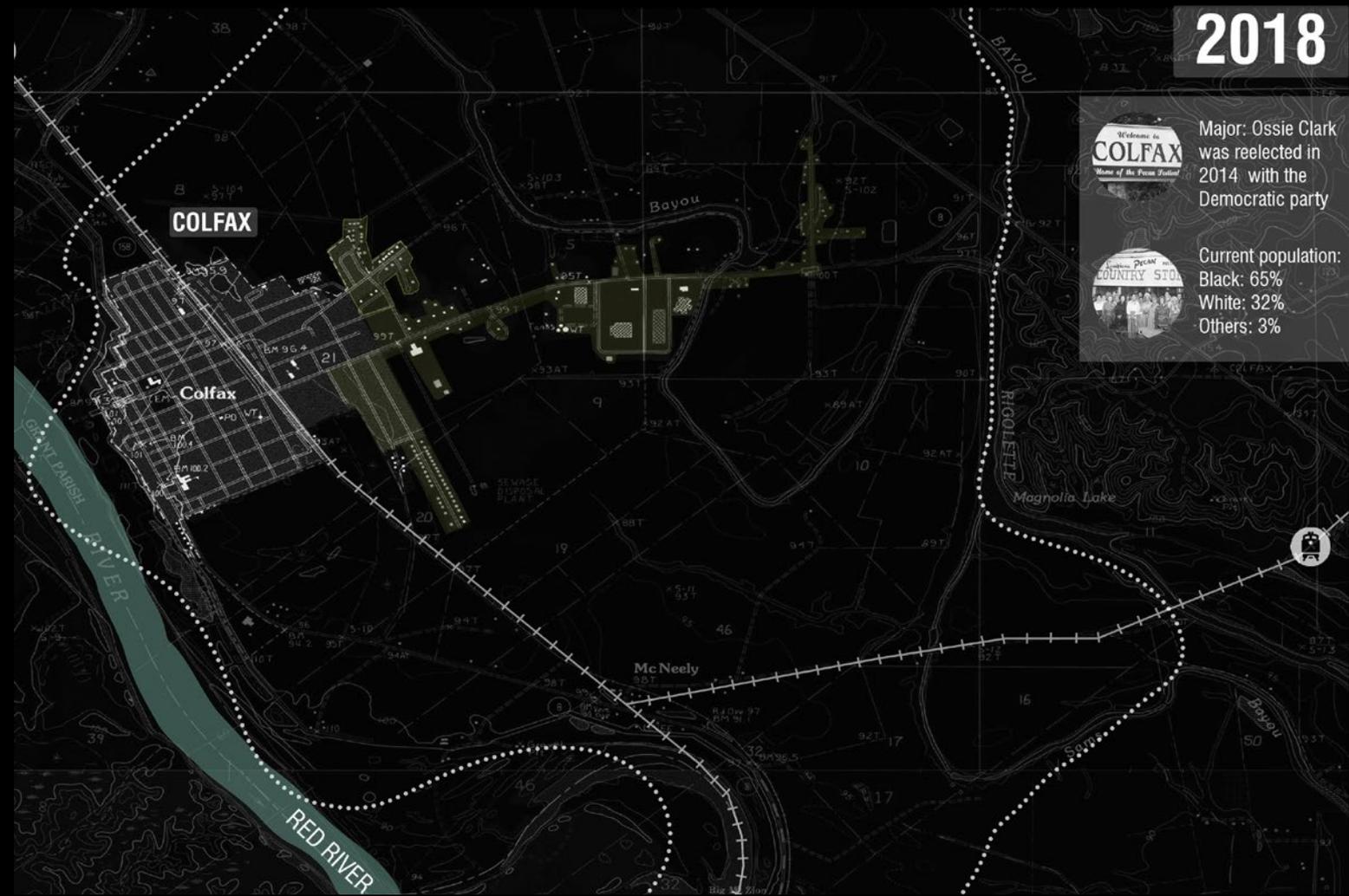
**COTTON KINGDOM, THEN & COTTON KINGDOM, NOW**  
*Colfax, The red river and the Calhoun cotton plantation*





**1956**

In 1950 a plaque of "Colfax Riot" was placed in the courthouse square (White supremacy).



**2018**

Major: Ossie Clark was reelected in 2014 with the Democratic party

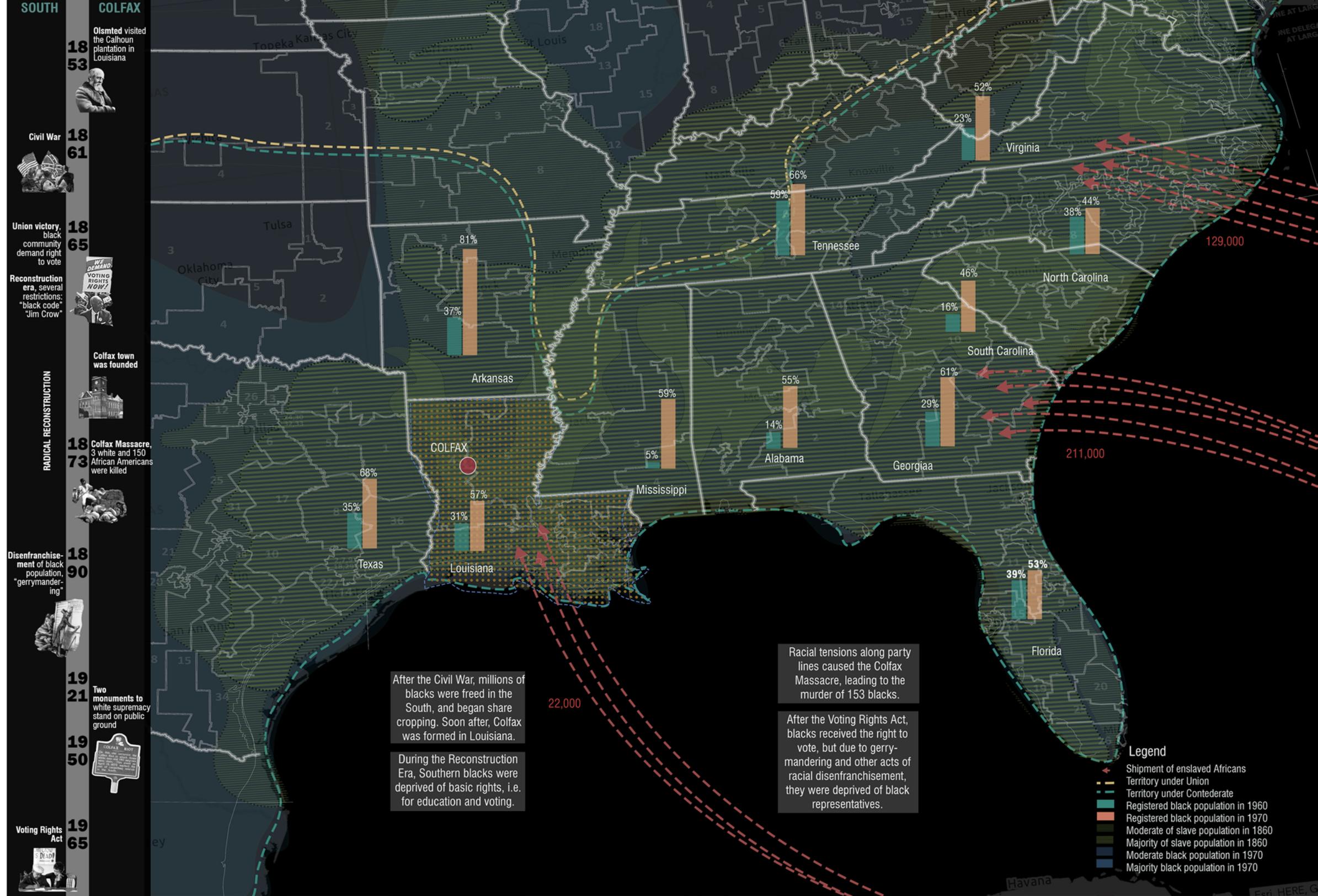
Current population:  
 Black: 65%  
 White: 32%  
 Others: 3%

**COTTON KINGDOM, THEN & COTTON KINGDOM, NOW**  
*Colfax, The red river and the Calhoun cotton plantation*



# RE-PRESENTING THE KINGDOM

Colfax, The red river and the Calhoun cotton plantation





05

FALL 2019

ARCHITECTURAL PHOTOGRAPHY: FROM MODELS  
TO THE BUILT WORLD

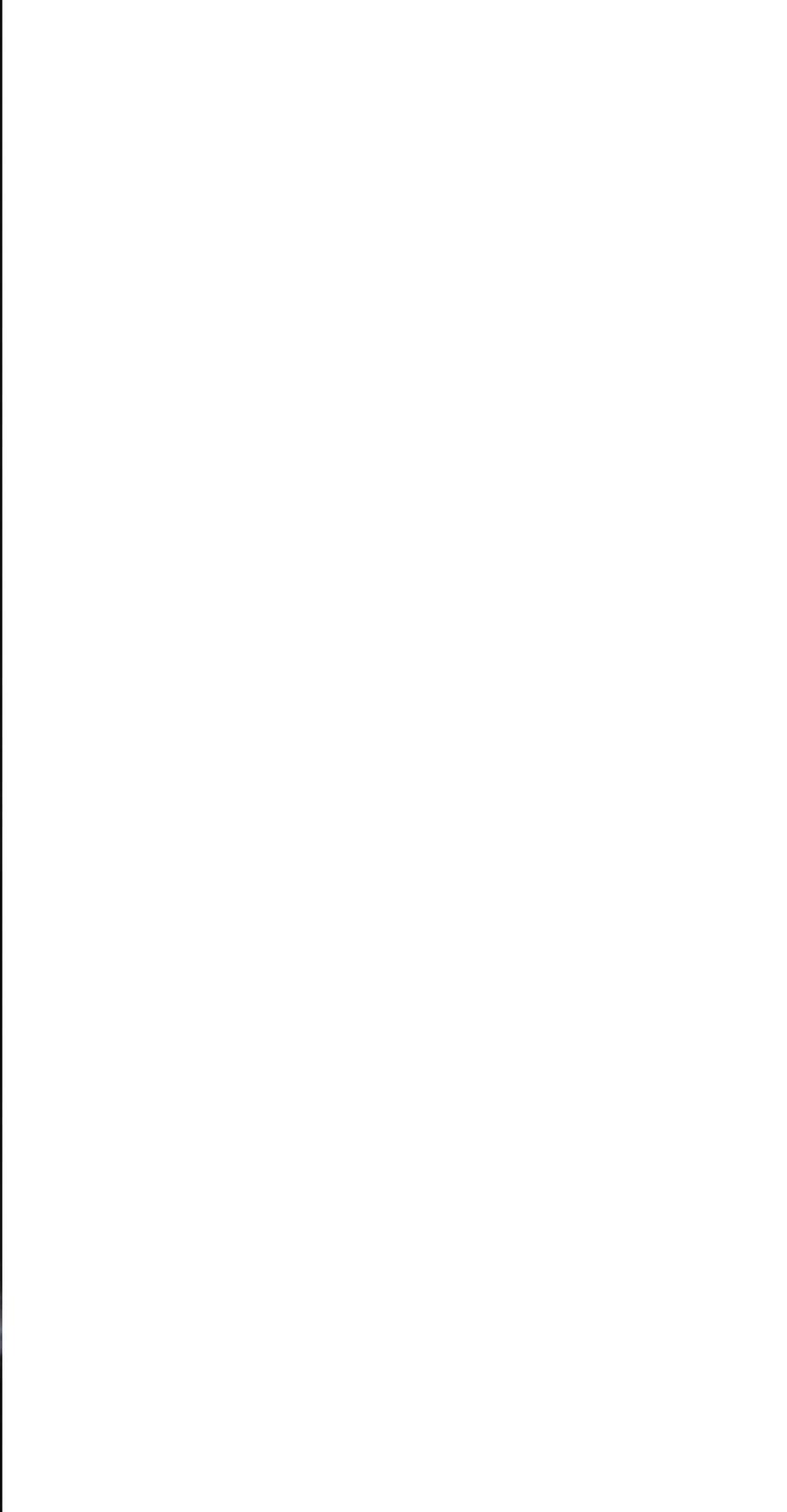
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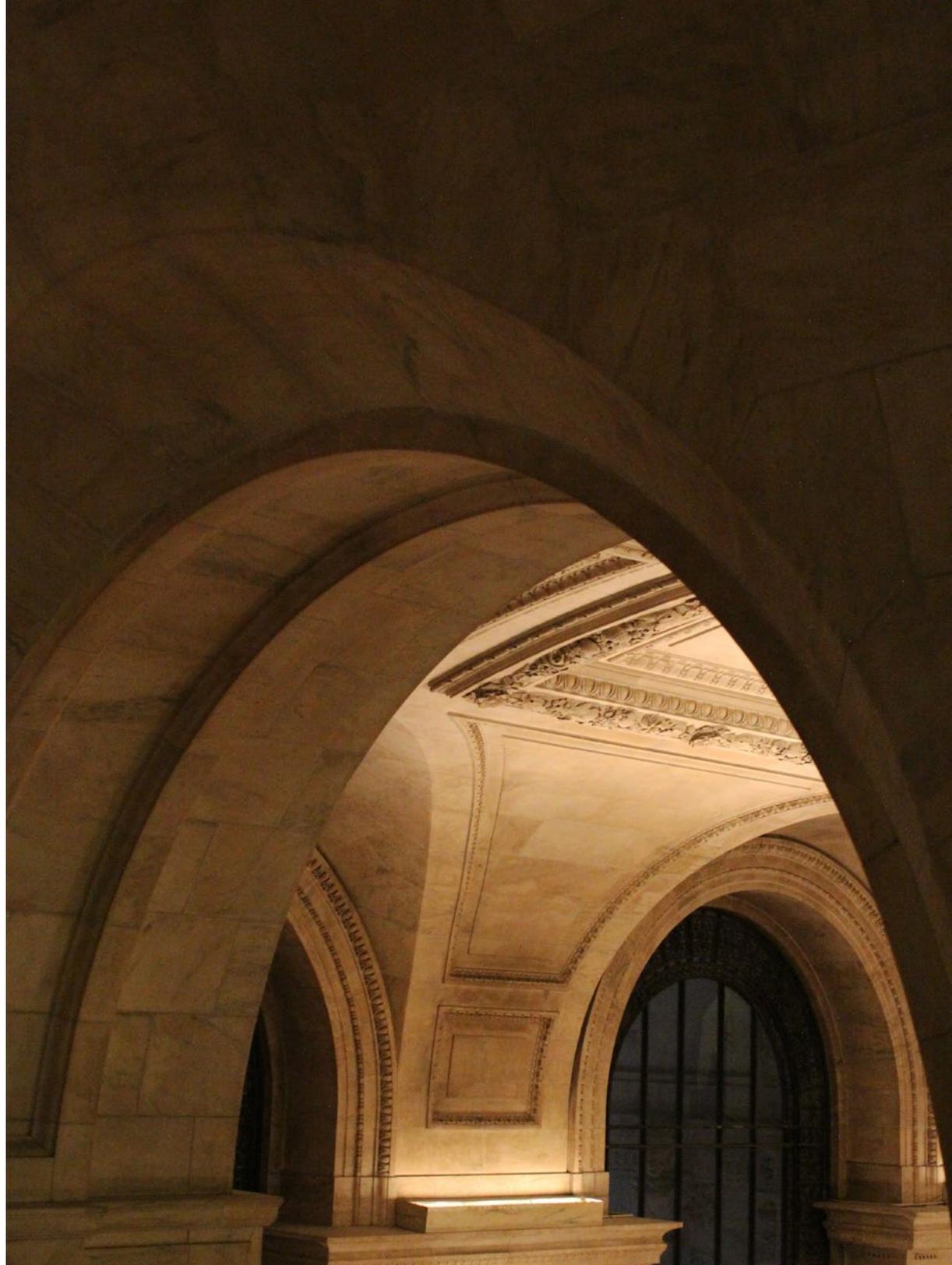
## Ghosts in the Shell

*"Finding interest in the everyday"*

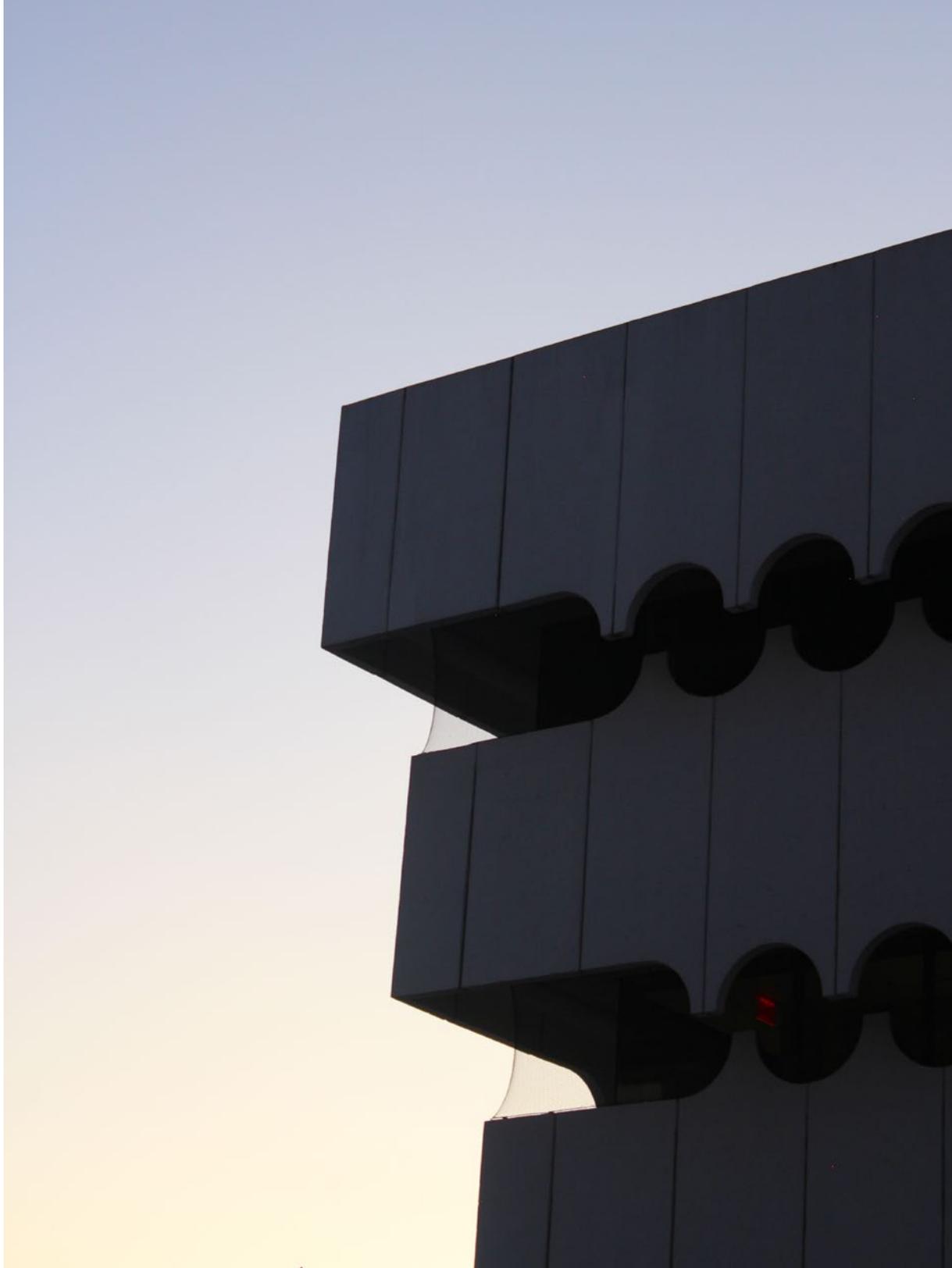
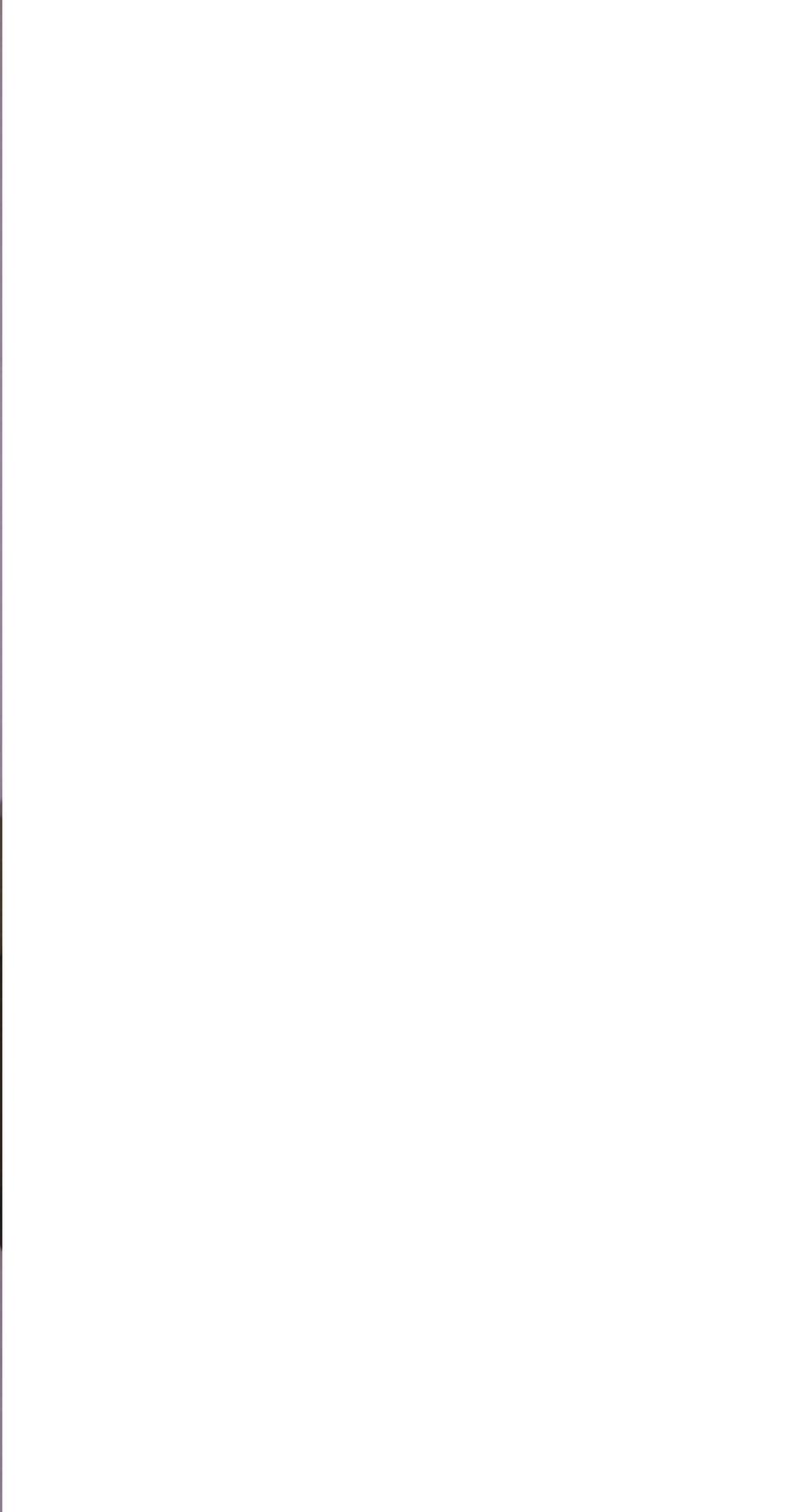
**NYC, New York**

Instructor: Michael Vahrenwald













06

SUMMER 2019

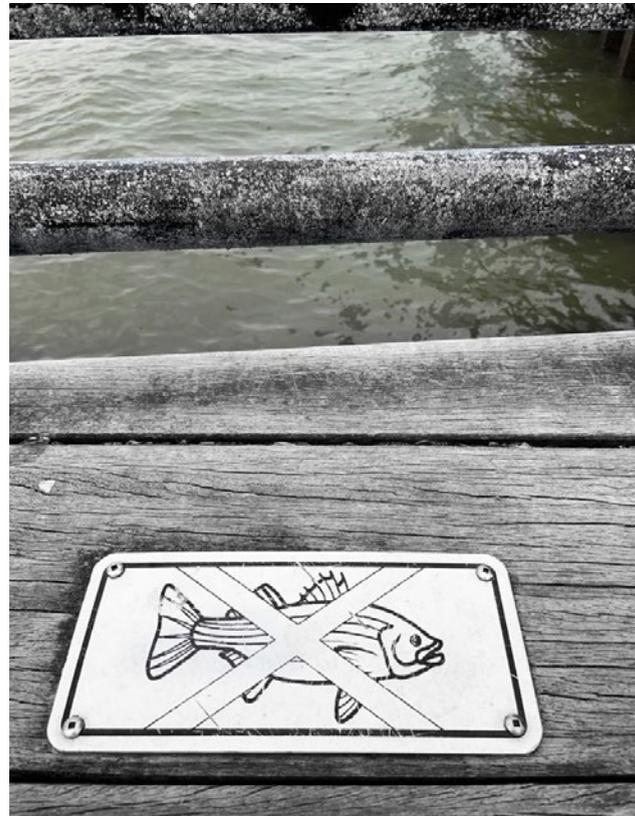
READING NEW YORK URBANISMS, RNYU

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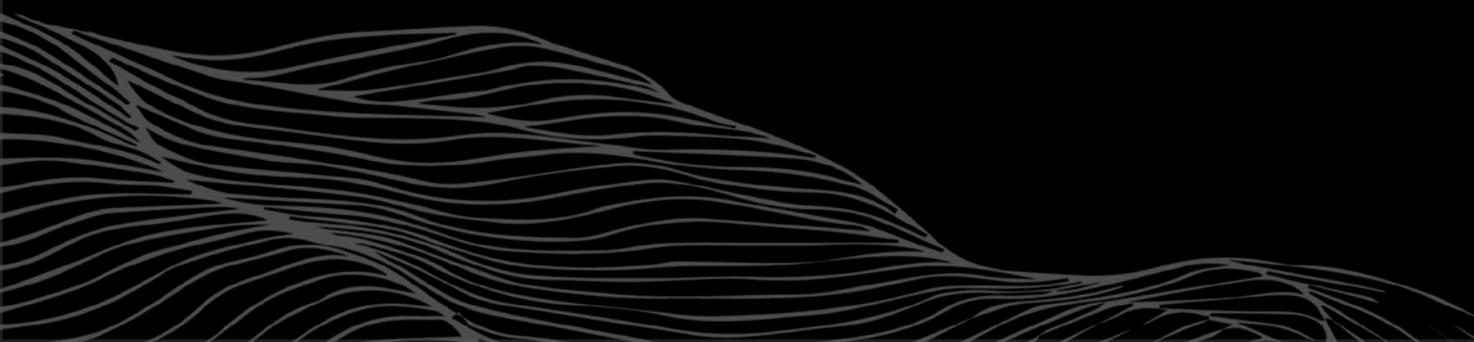
## Urban Derive

Jersey city, New Jersey

Instructor: Cassim Shepard







**Anai Perez Manrique**

Columbia University, GSAPP  
M.S. in Architecture and Urban Design

ap3888@columbia.edu  
347-207-2236

