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DANWEI PAN

LANDSCAPE ARCHITECTURE

+

URBAN DESIGN

SELECTED WORKS

2016—2020

The following collection of selected works is a reflection of my interest in the relationship between people and urban spaces. The success of a design is to make a positive impact on the ways of living, even beyond the boundary of the site. I explore spaces in various scales and forms, spotting potentials and possibilities within common objects, making interdisciplinary approaches between architecture, landscape, and urban fabric.

0 WELL-HOUSE RENAISSANCE
1 a wasteland transformation

Location: Shapira, Tel Aviv, Israel

Size: Neighborhood to city scale

Term: GSAPP, Spring 2020

Team: Danwei Pan,

Kuan-I Wu, Tian Hao, Zixuan Zhang

Coordinator: Kate Orff, Geeta Mehta, Thad Pawlowski,

Dilip Da Cunha, Lee Altman,

Adriana Chavez, Julia Watson

Tel Aviv is a coastal city experiencing constant urban heat and seasonal flooding, the southern neighborhoods are the most disadvantaged in the city. Shapira neighborhood is among the ones suffer the most, which exacerbates the chronic stresses of daily life, and makes commuting and outdoor activities more difficult. The neighborhood is also socially fragmented that we see it could benefit from additional social programs that help bring together old and new residents.

We recognized Well-Houses as a unique feature in Shapira during our field visit. Well-Houses and orange orchards are symbols of Jaffa's history. They catalyzed the agricultural production and enriched social life outside the city in the 19th century. They were elements in the historic landscape of Tel Aviv where water is pumped up and irrigated the famous Jaffa orange field. Later the landscape became urbanized around the orchards, layered up with modern developments. These well-houses became a forgotten landscape today. The 21st Century Well-House has the potential to become a new climate infrastructure, helping neighborhoods confront these issues. The project is about to reimagine the historical Well-House as the future climatic infrastructure for Tel Aviv.

A Landscape Suffering from Heat and Seasonal Flooding

Then



Now



- Severe Urban Heat
- Flooding
- ▲ Topography
- + Existing Well-House



They are very important. You can't identify it on any other place in the world.

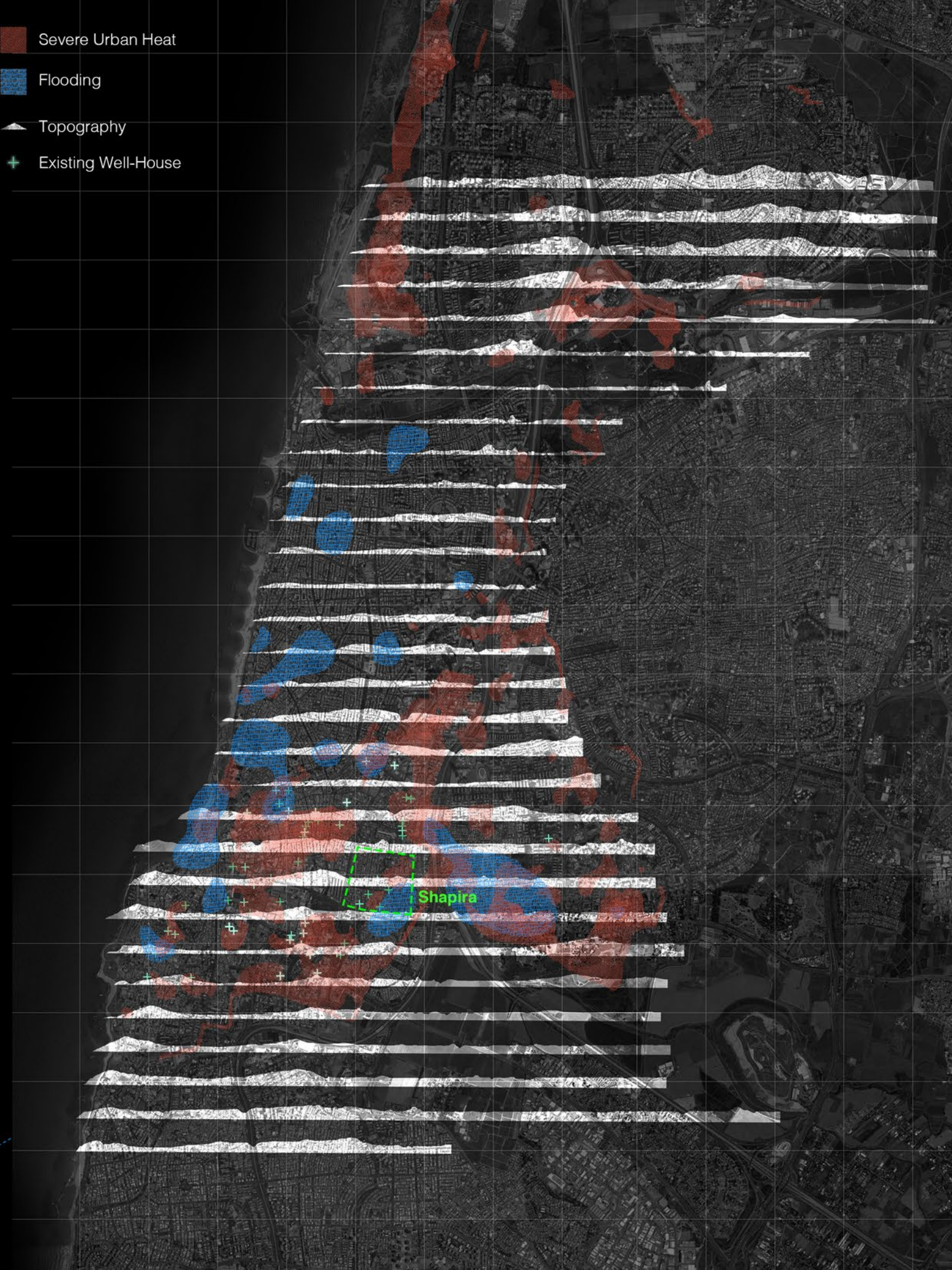
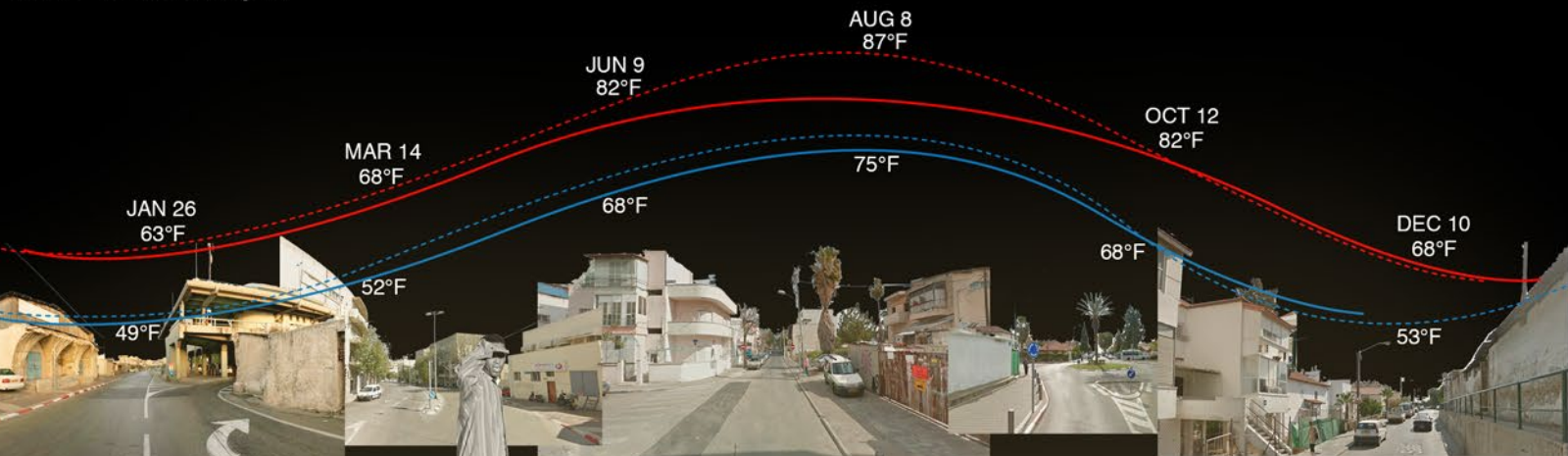
Prof. Amnon Bar Or
Tel Aviv University
Architect expert in the preservation and restoration of historic buildings and heritage sites.



Many people have no idea about those old buildings, but it would be great if they can protect and retrofit them.

Yonatan Shlomo
Local Tour Guides
15 years Resident in Shapira

Street View in Shapira

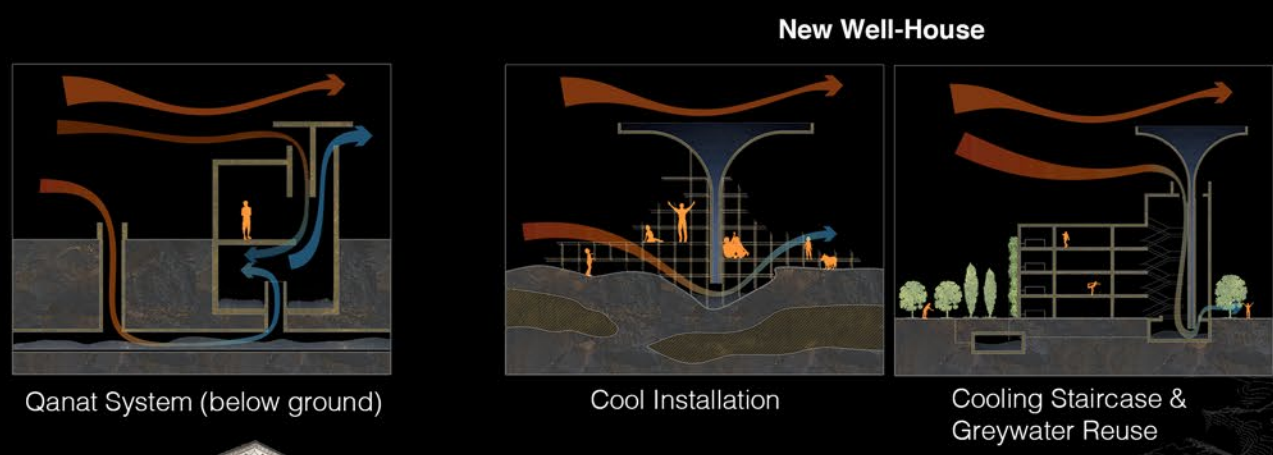
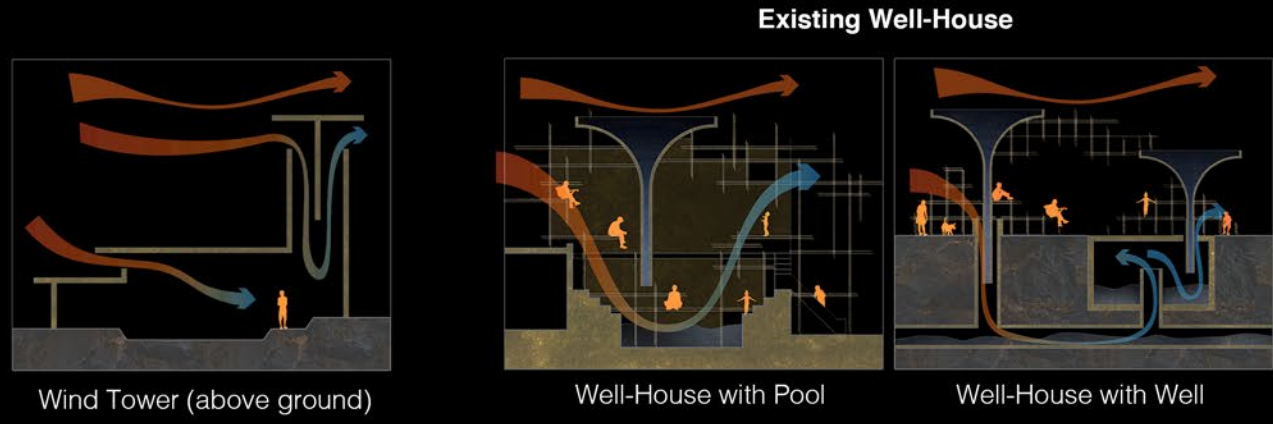


Historic Technology and Potential Future Adaptation

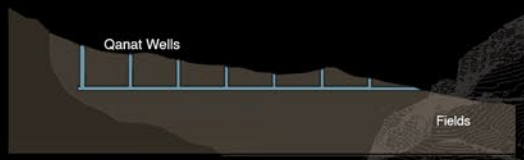
Well-houses were located on high points of topography, with wells reaching deep underground. We take advantage of the topography to incorporate other historic climatic technologies of Persian origin: Badgir (wind tower) and Qanat (underground irrigation channel) to direct water and wind. It is a new cooling strategy that has not been implemented in Tel Aviv before, to create a circulation system of wind and water.

The forgotten network of Jaffa orange routes will be envisioned as future green corridors, funneling sea breeze from the Mediterranean into the neighborhoods and channeling water to lower grounds to recharge the aquifer. The green corridors also provide habitat for migratory birds.

- + Well-house / Good Condition
- + Well-house / Medium Condition
- + Well-house / Bad Condition
- ← Wind Path



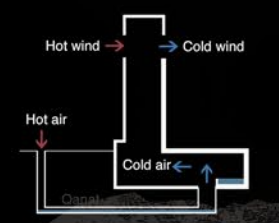
Ancient Badgir



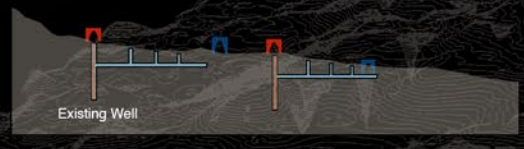
Ancient Qanat



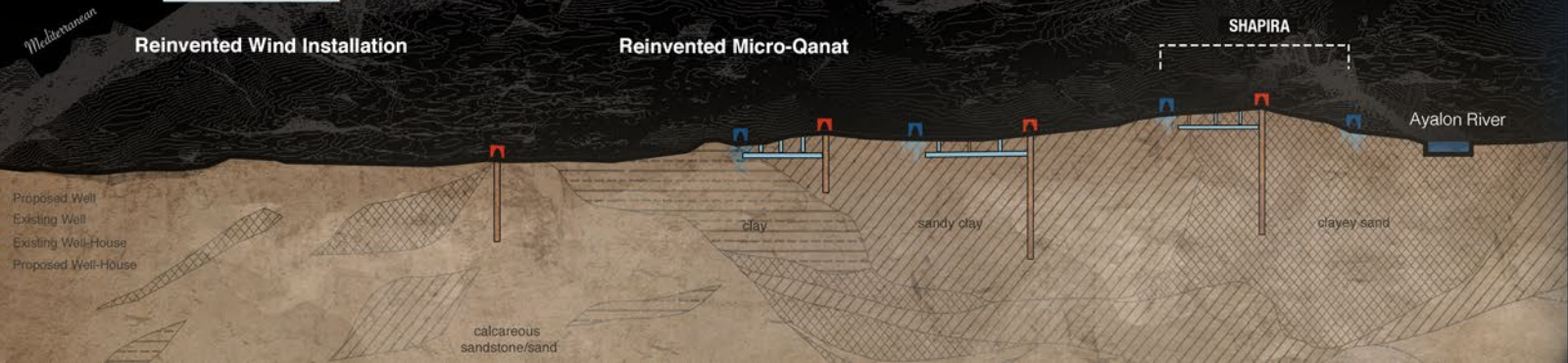
Existing Well-House



Reinvented Wind Installation



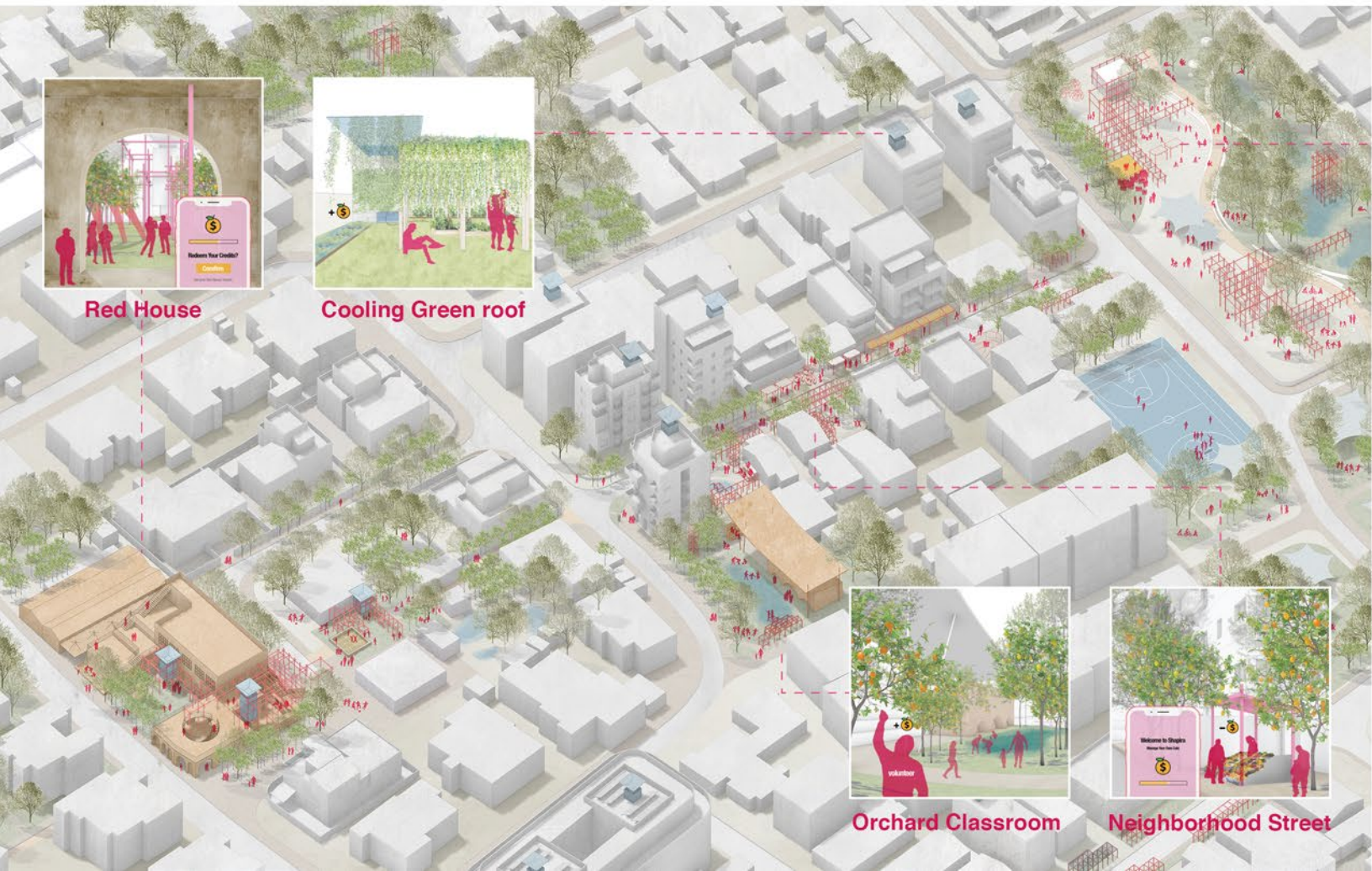
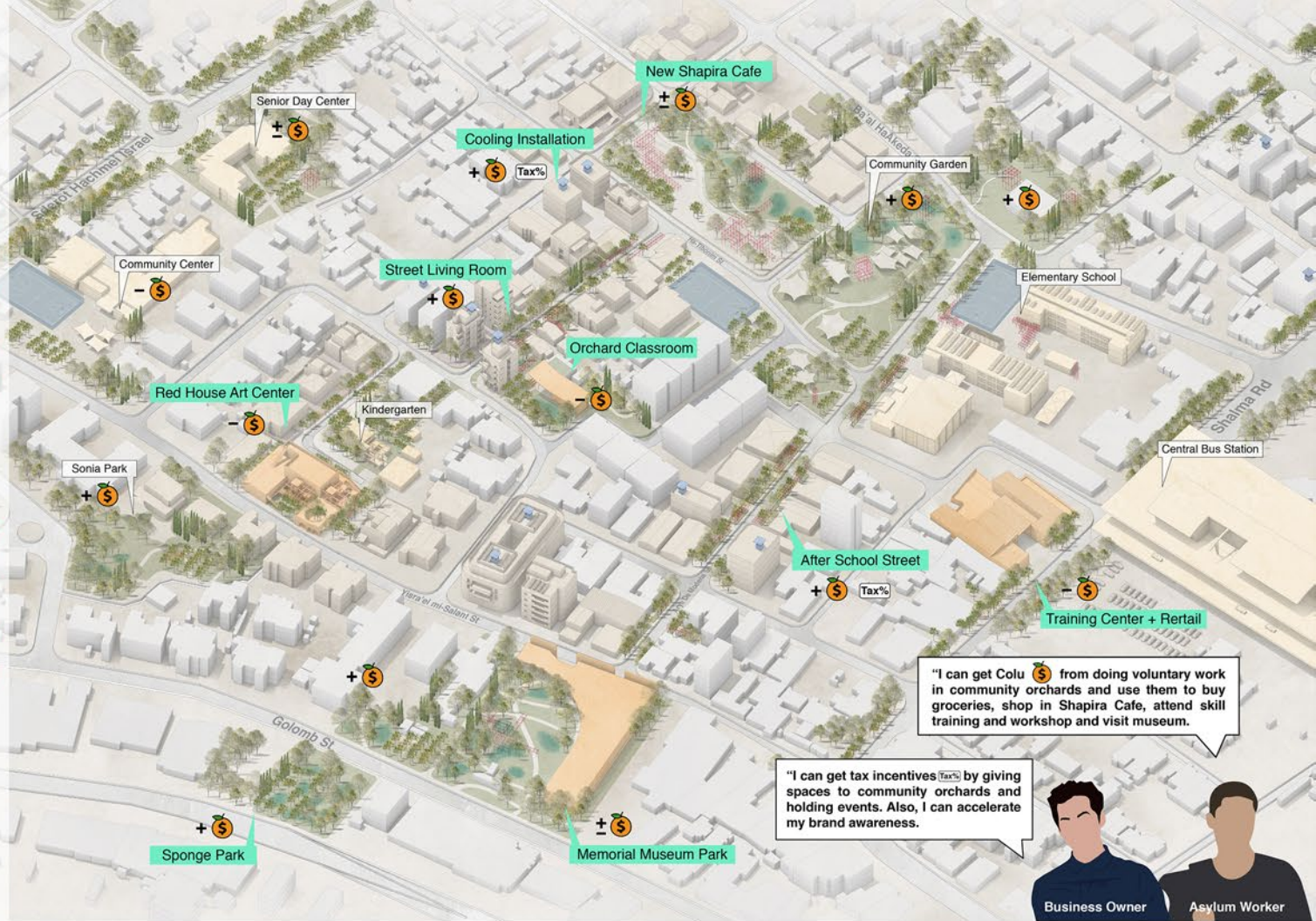
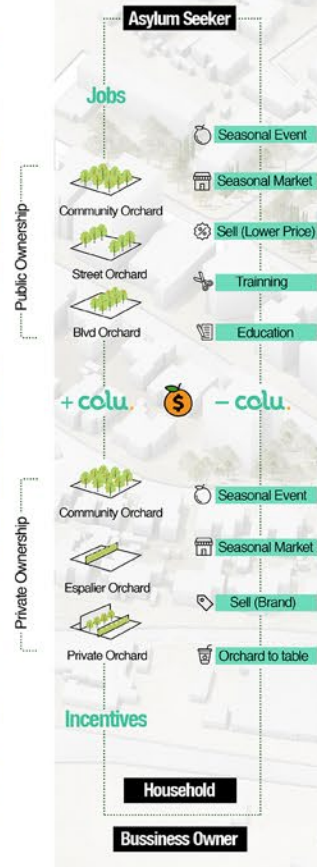
Reinvented Micro-Qanat



- + Proposed Well
- + Existing Well
- + Existing Well-House
- + Proposed Well-House



A New Neighborhood Fabric



New Shapira Cafe



A Micro Cooling System

A transect cut from the Red House (an existing Well House) to Shapira Cafe demonstrates the water collection strategy and use of the micro Qanat to activate wind flow. Greywater is the constant water source for irrigation and filling the micro Qanat.

Impervious surfaces are replaced with permeable materials to reduce runoff contamination increase infiltration, supporting wildlife habitat in the long term.

Residential greywater will be the constant water supply for the micro qanat, the greywater will be treated and filtered before release into the micro qanat. Also seasonal rainwater will be collected through the installation on the building. Once the qanat is filled up, hot air will be drawn from the surface and goes through the qanat, turning into a cooling breeze and sending it back to the surface that enables a microclimate cooling ventilation cycle.



The Well-House Renaissance

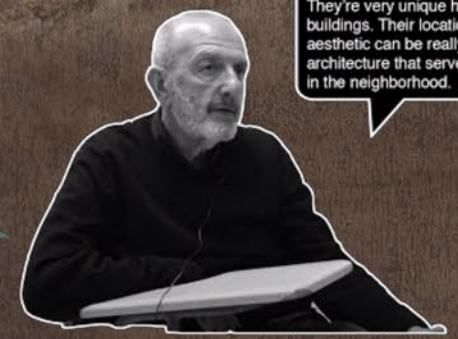
The historic value of the Red House is emphasized by new programming and the introduction of an orchard landscape within the urban fabric.

The new Red House will become a multidisciplinary art and community center, connecting the neighborhood's different populations through culture and art.

The existing architecture facades of Red House open up, allowing ventilation between indoor and outdoor spaces, providing interactive spaces for visitors. In the open spaces, bringing the sense of orchard back to the community, allowing orchards to grow in the urban fabric with new forms. We see the 21st century well-house as a nesting place where both culture and social can thrive, that benefit everyone in the community. It is a period of Well-House renaissance and a period of climate resilience for the next generation.



They're very unique historical buildings. Their location, history, aesthetic can be really successful architecture that serve everybody in the neighborhood.



Prof. Amnon Bar Or
Tel Aviv University
Architect expert in the preservation and restoration of historic buildings and heritage sites.

Cool Air Shaft

Irrigation Shaft

Hot Air Shaft

0 GREEN IT, CLEAN IT!
2 a wasteland transformation

Location: IBM, Kingston, NY
Size: 200 acres
Term: GSAPP, Fall 2019
Team: Anai Perez, Danwei Pan,
Pratibha Singh, Zixuan Zhang
Coordinator: Kaja Kühl

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.

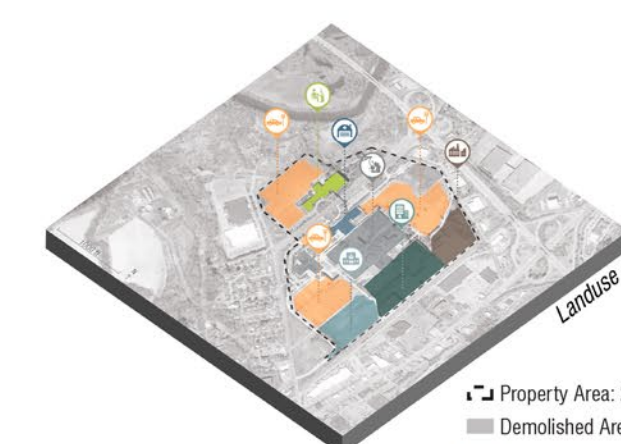
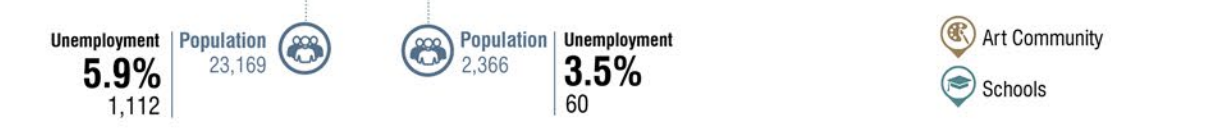
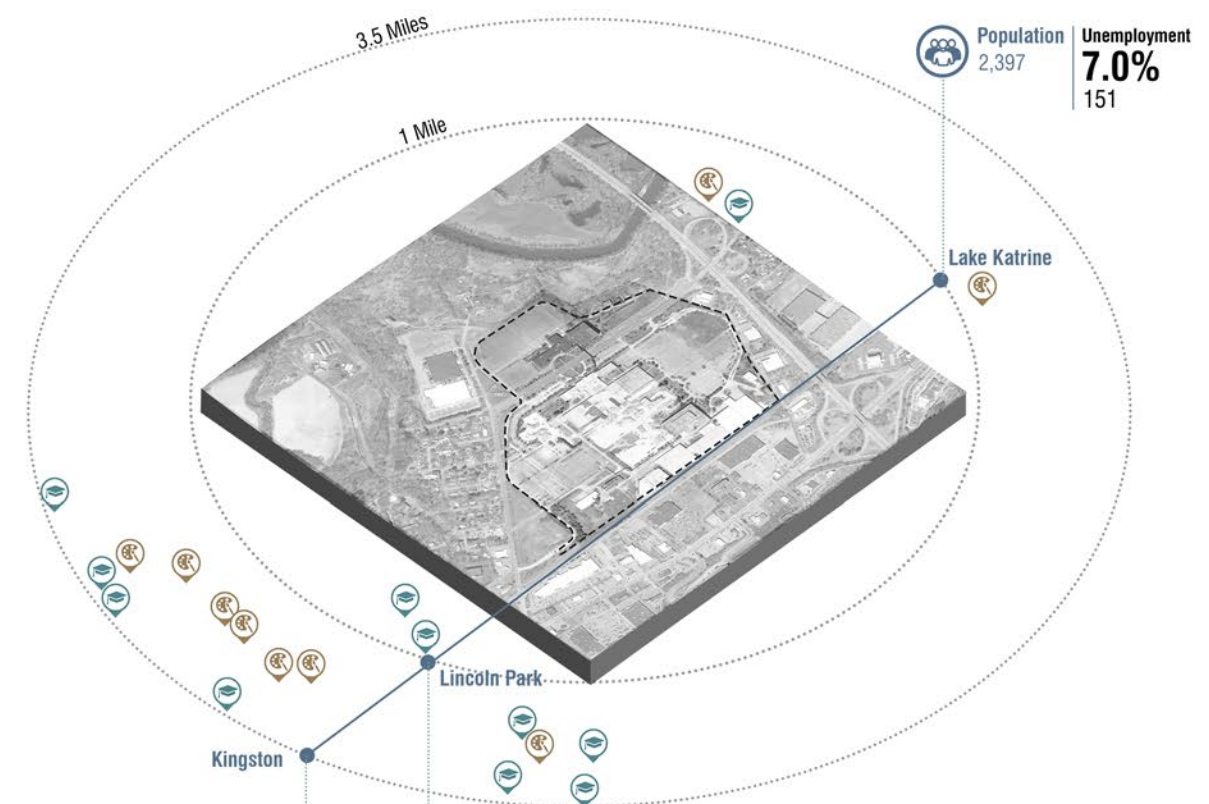
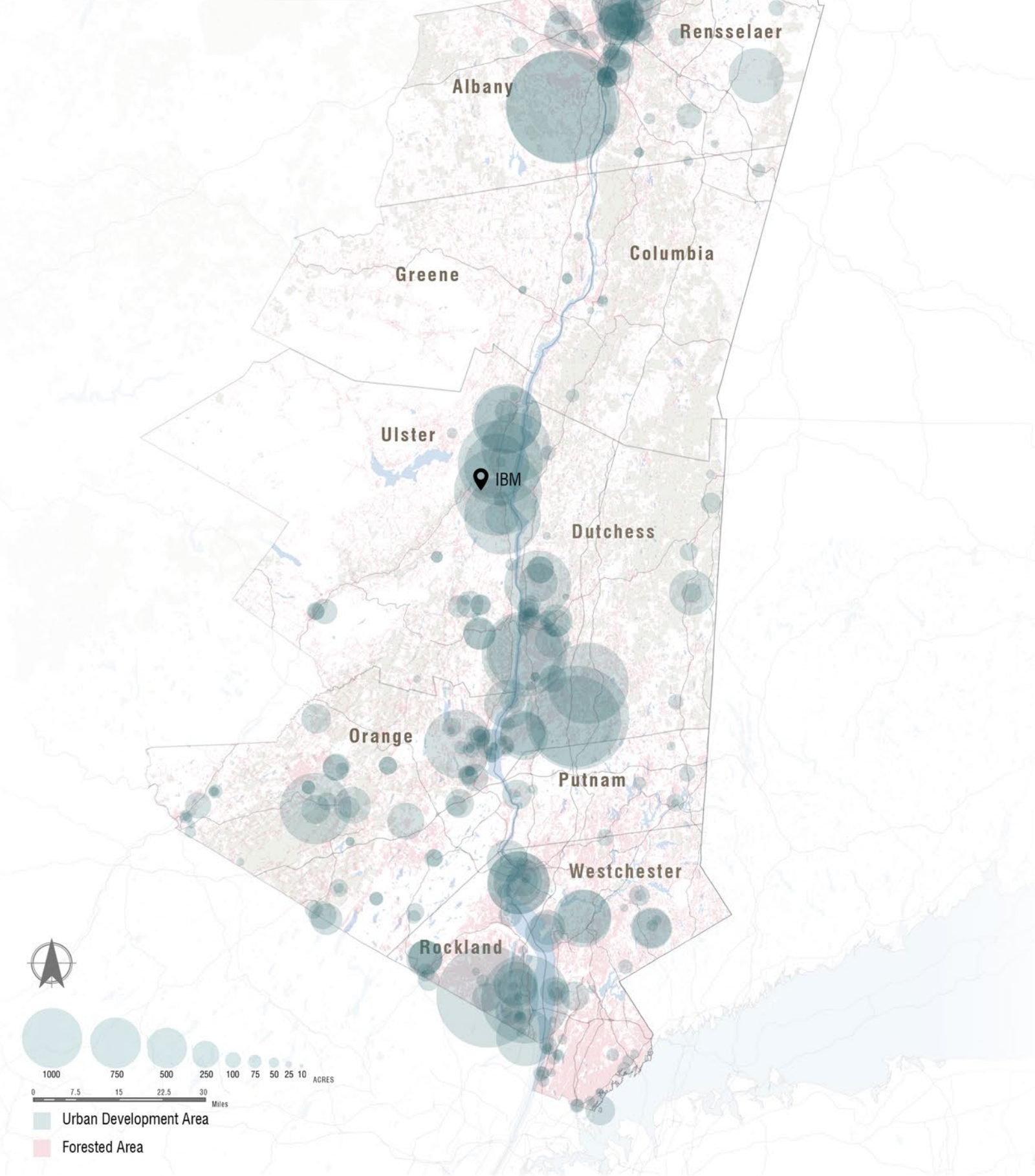
The former IBM manufacturing site north of Kingston was abandoned in 1992. Once an economic engine for Ulster County, the site is now an economic and environmental liability.

The proposed programs will 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.

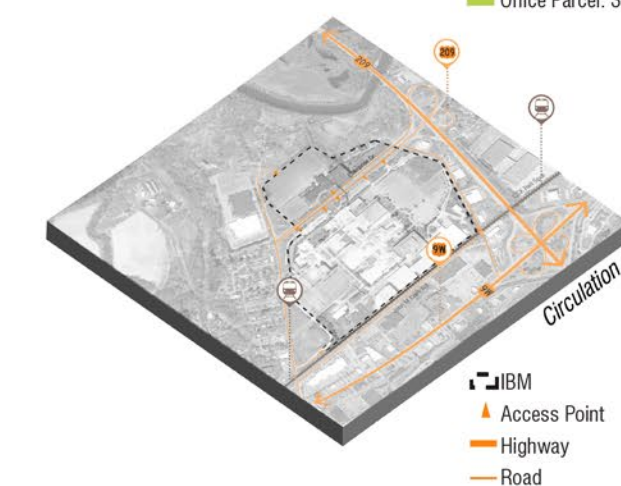
Video: <https://vimeo.com/380158487>

Contaminated Sites in Hudson Valley

130,000 acres of land are waiting for cleaning up existing hazardous waste and look for solution to reuse the abandoned sites, ensuring economic development and sustainability.



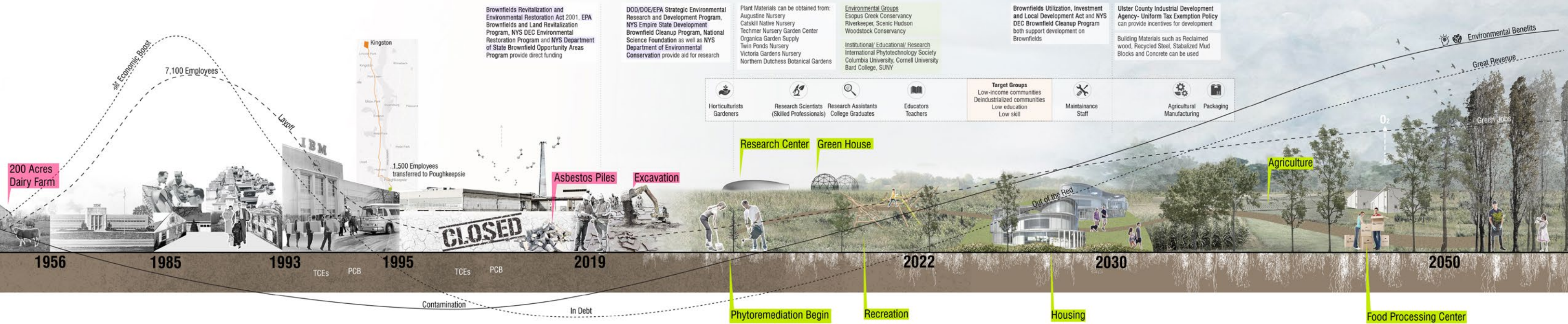
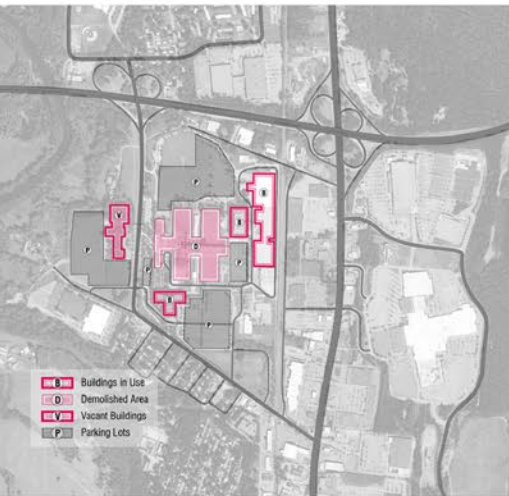
- Property Area: 258 Acres
- Demolished Area: 19 Acres
- Industrial Parcel: 20 Acres
- Data center/ Industrial Parcel: 16 Acres
- Mixed Use Parcel: 10 Acres
- Parking Parcel: 39 Acres
- Office Parcel: 3 Acres



- IBM
- Access Point
- Highway
- Road

Concept & 100 Year Timeline

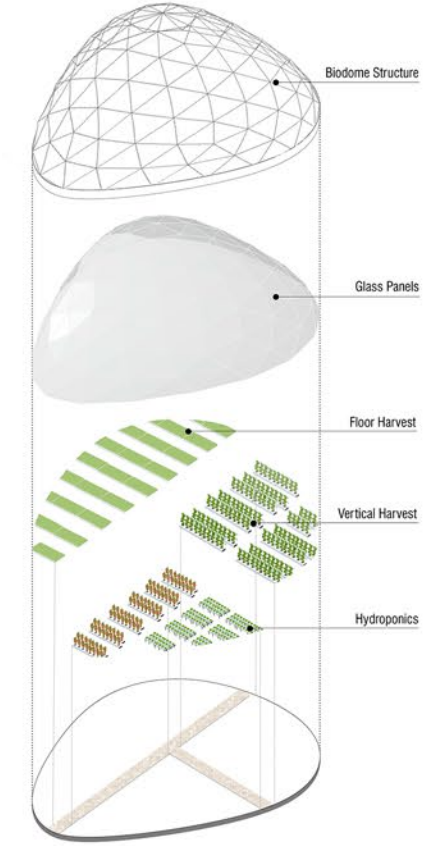
The original layout of IBM had an isolated structure in the center, surrounded by parking lots, cutting down the relationship with the neighboring lands. The project concept is to create an inversion of a central piece of landscape, bridging the adjacent land use with its extended corridors. It acts as an armature to hold potential programs and clean up the polluted area at the same time.



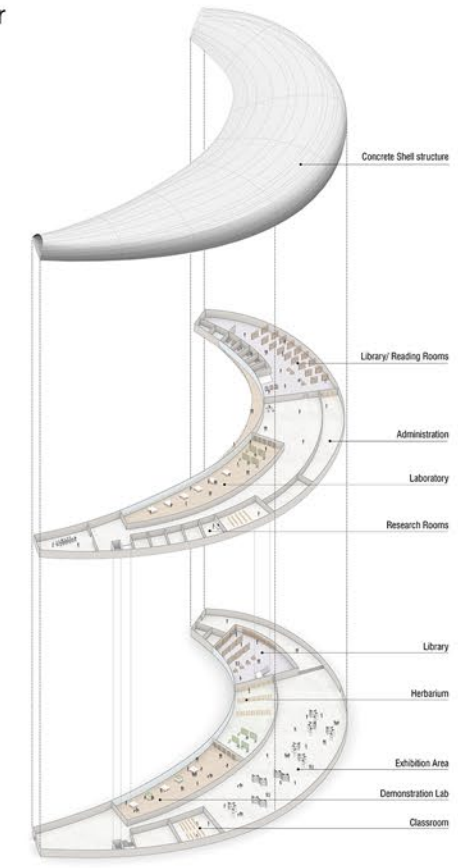


- LEGEND**
- 1 - Research Center
 - 2 - Phytoremediation Garden
 - 3 - Winter Garden
 - 4 - Pollinator Garden
 - 5 - Greenhouse
 - 6 - Farm to Table Copackers
 - 7 - Food Processing Center
 - 8 - Indoor soccer fields
 - 9 - Affordable Housing
 - 10 - Incubators
 - 11 - Playfields
 - 12 - Playground
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

Greenhouse



Research Center



- Plume
- Armature Space

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

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

- Phase 1
- Phase 2
- Phase 3



Tree	Shrub	Perennial	Tree	Shrub	Perennial	Tree	Shrub	Perennial
Canadian Serviceberry <i>Amelanchier canadensis</i>	Red Maple <i>Acer rubrum</i>	White Birch <i>Betula populifolia</i>	Eastern Red Cedar <i>Juniperus virginiana</i>	Green Hawthorn <i>Crataegus viridis</i>	American Holly <i>Ilex opaca</i>	Willow <i>Salix spp.</i>	Red Mulberry <i>Morus rubra</i>	Loblolly Pine <i>Pinus taeda</i>
Wild Rhododendron <i>Rhododendron maximum</i>	Sweet Viburnum <i>Viburnum lentago</i>	Lowbush Blueberry <i>Vaccinium angustifolium</i>	Felix Cypress <i>Chamaecyparis obtusa</i>	Hiberry <i>Ilex glabra</i>	Jolly Red® Winterberry <i>Ilex verticillata</i>	Alfalfa <i>Medicago sativa</i>	Bermuda grass <i>Cynodon dactylon</i>	Eastern cottonwoods <i>Populus deltoides</i>
Marsh Blazing Star <i>Liatris scariosa</i>	Black-eyed Susan <i>Rudbeckia hirta</i>	Butterfly Milkweed <i>Asclepias tuberosa</i>	Eastern Blazing Star <i>Liatris scariosa</i>	Switchgrass <i>Panicum virgatum</i>		Hairy Goldenrod <i>Solidago nemoralis</i>		Hybrid Poplar <i>Populus L x Populus deltoides</i>



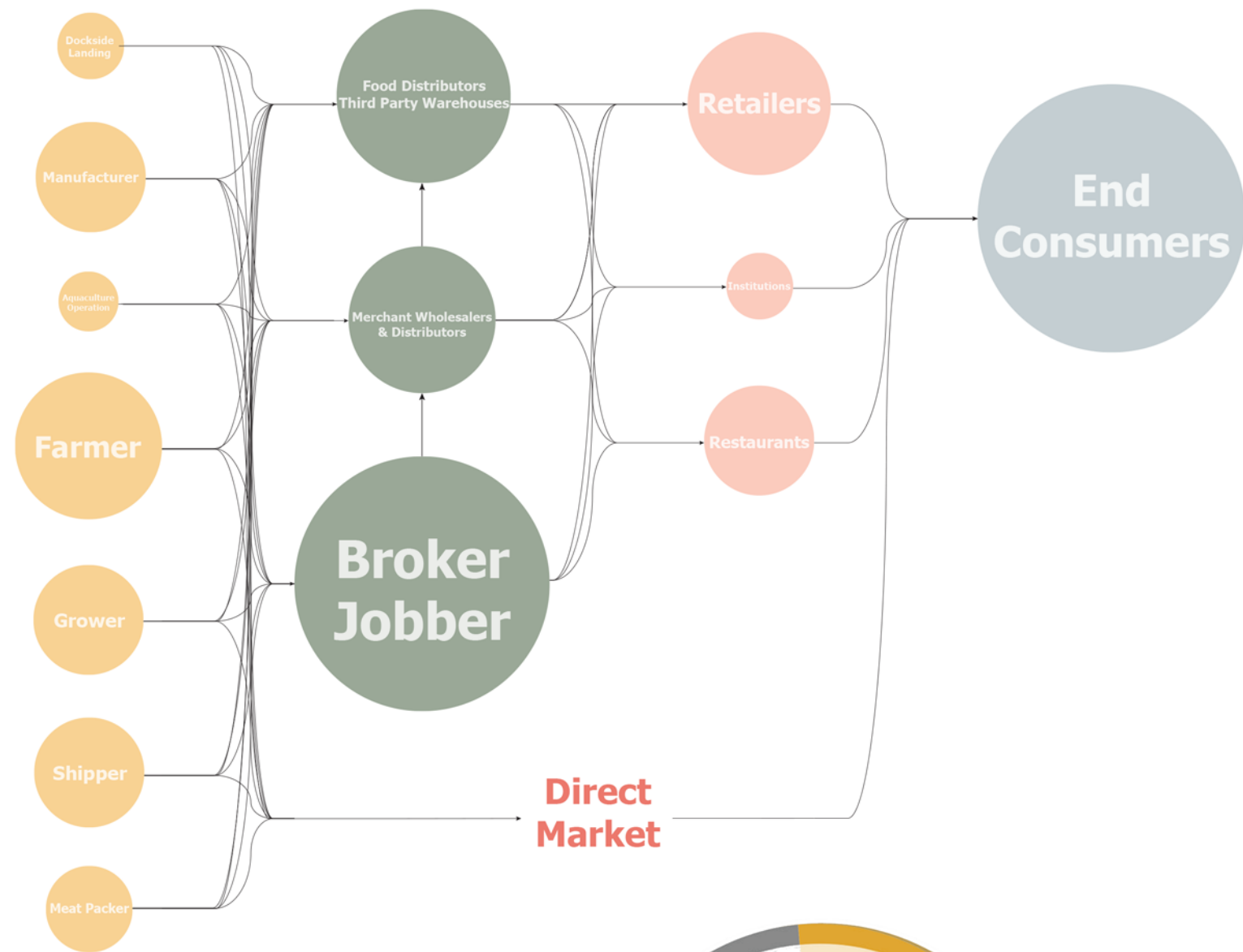
0 SUNSET BAZAAR
3 a sustainable healthy food market

Location: Brooklyn, NY
Size: 3 acres
Term: GSAPP, Summer 2019
Team: Danwei Pan Hugo Bovea,
Sharvari Raje, Yuan Qin
Coordinator: Nans Voron, Tricia Martin, Sagi Golan

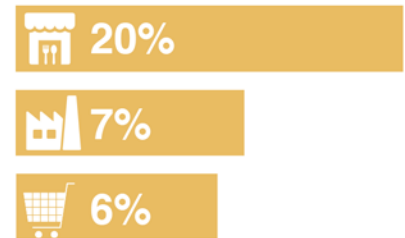
Sunset Bazaar is a proposal to introduce a new system within the existing food network in Sunset Park, NY. A startling 30% of the population is facing food insecurity and receiving SNAP benefits, and 92% don't have a healthy diet. This proposal seeks to create a secondary network to bring affordable fresh food to the neighborhood and a food hub for social engagement. The food is brought directly from using the existing railroad infrastructure and fresh unsold food is also sourced from local suppliers at a lower price. The Market is located under the Gowanus Expressway, where all the food is collected, processed, sold and distributed. The market builds up as a different experience that binds grocery shopping with socially interactive spaces, creating a platform for people to exchange and share, building a collective sense of security and erasing the stigma of receiving food stamps.

Food System & Sunset Park

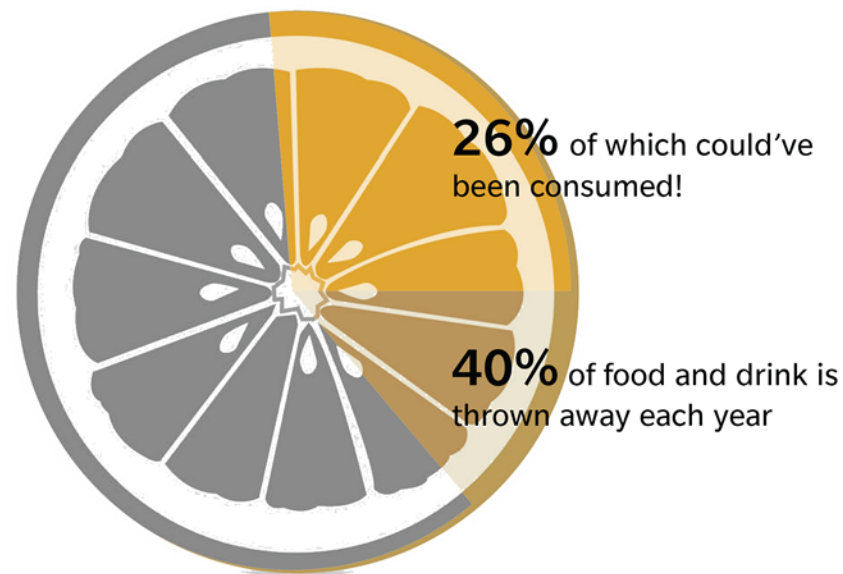
The Supplemental Nutrition Assistance Program (SNAP), or food stamps, helps people with limited income buy food. However, the quotas of SNAP that families receive in Brooklyn are not enough to meet the monthly needs that push them away from a healthy diet. There is a need for creating a direct food market to reduce the cost of fresh food.



Estimate Food Waste by Sectors



Edible Food Waste by Category



30%
Food Insecurity



8%
Citywide

29%
Below Poverty Level



22%
Citywide

46%
Below High School Degree



20%
Citywide

Cost of food

in Brooklyn
\$ 1,395/ Month

SNAP allowance

in Brooklyn
\$ 649/ Month



60.1% of Household have children

36% don't have access to food within walking distance



process food is preferred it lasts longer and it's cheaper



92% in Sunset Park don't have a healthy diet

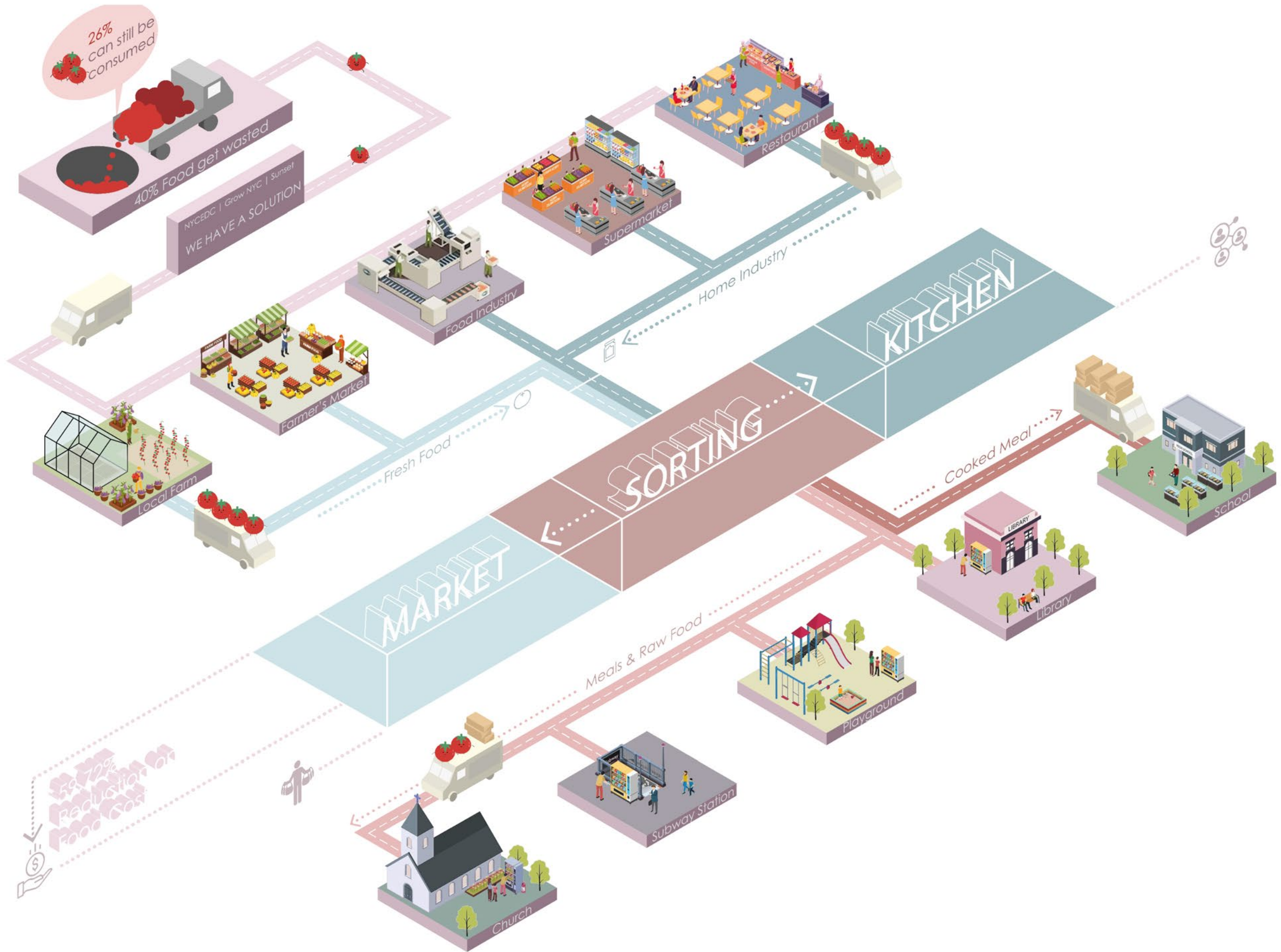


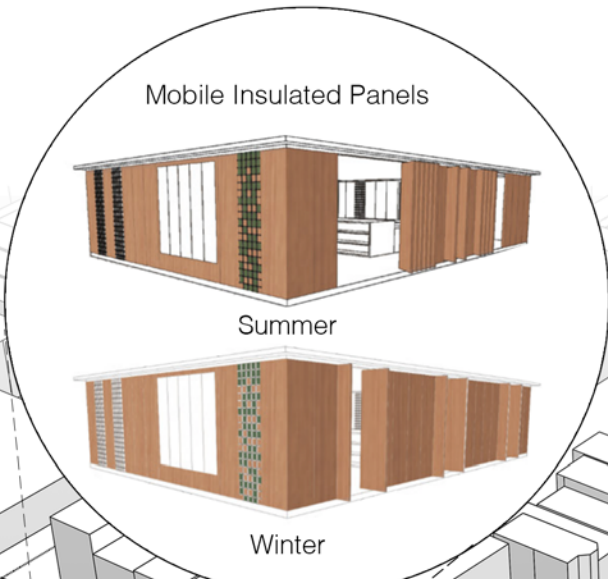
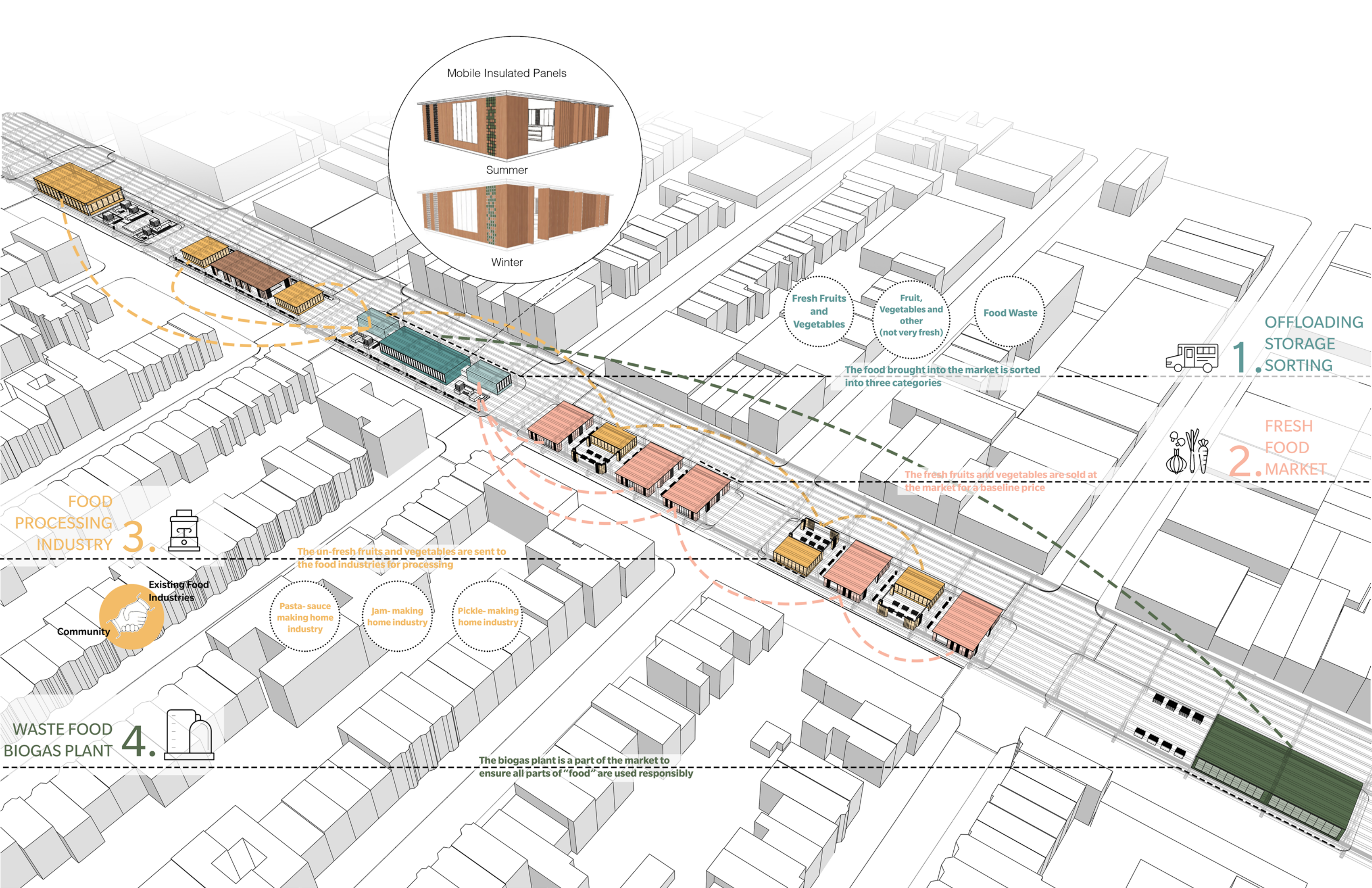
a stigma of shame attached to use SNAP cards



A Need for Healthier Diet

Supply & Distribution Network





Fresh Fruits and Vegetables

Fruit, Vegetables and other (not very fresh)

Food Waste

The food brought into the market is sorted into three categories



1. OFFLOADING STORAGE SORTING



2. FRESH FOOD MARKET

The fresh fruits and vegetables are sold at the market for a baseline price

3. FOOD PROCESSING INDUSTRY



The un-fresh fruits and vegetables are sent to the food industries for processing

Existing Food Industries



Community

Pasta-sauce making home industry

Jam-making home industry

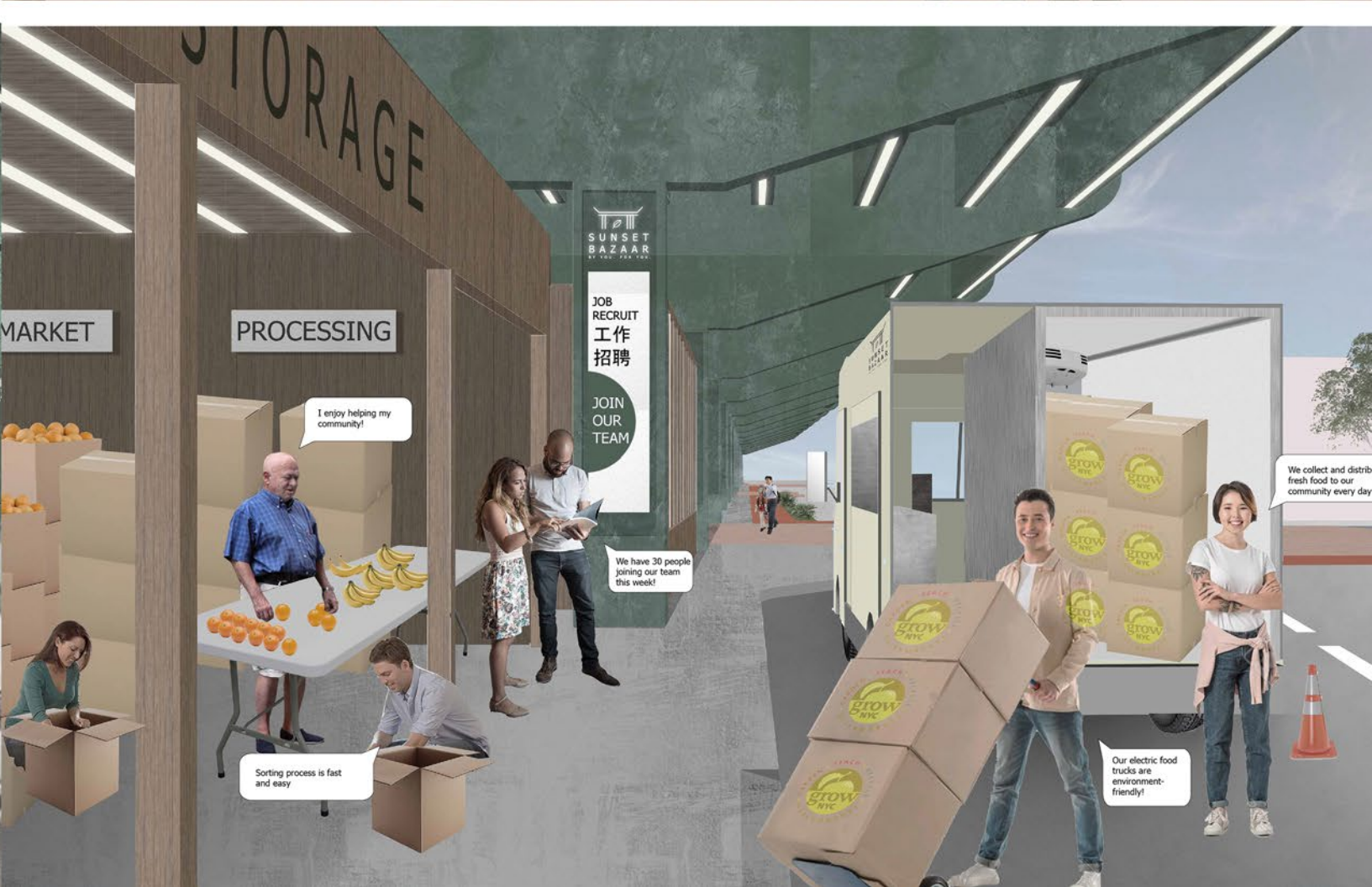
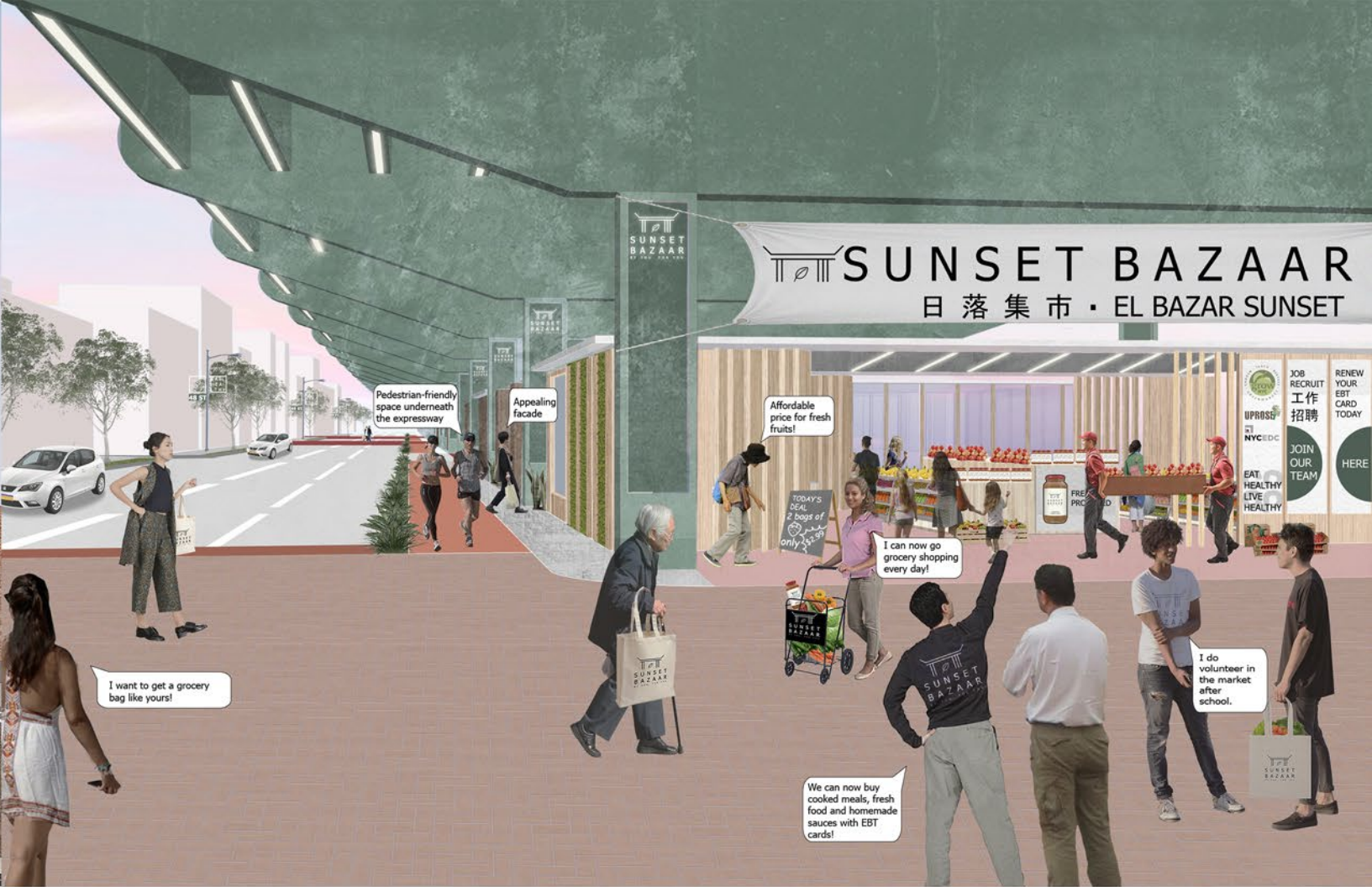
Pickle-making home industry

4. WASTE FOOD BIOGAS PLANT



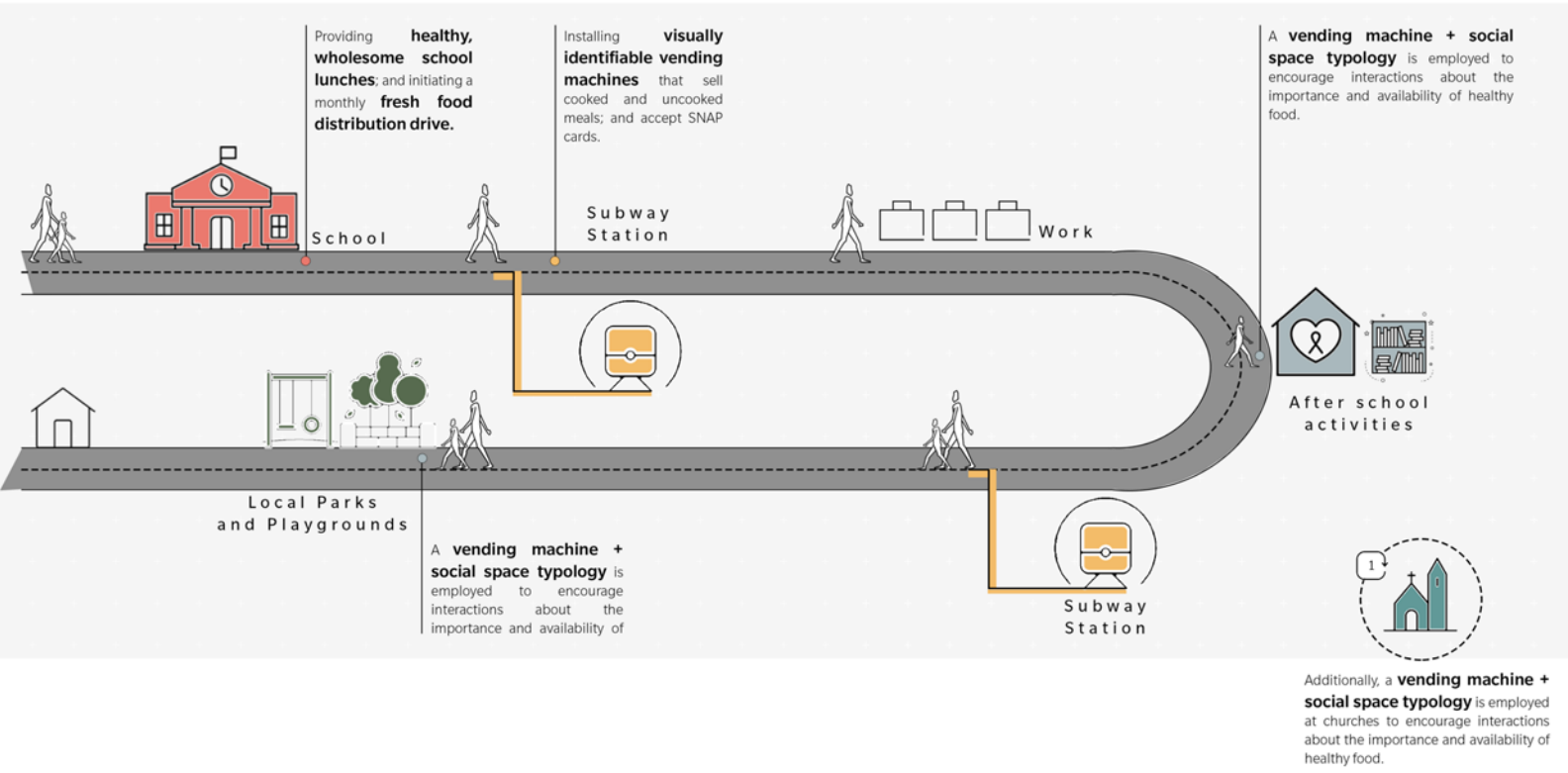
The biogas plant is a part of the market to ensure all parts of "food" are used responsibly

A Social Space under the Expressway

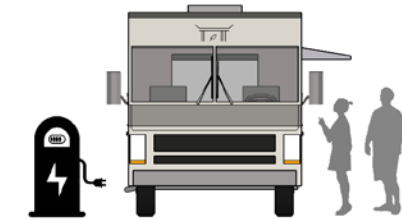
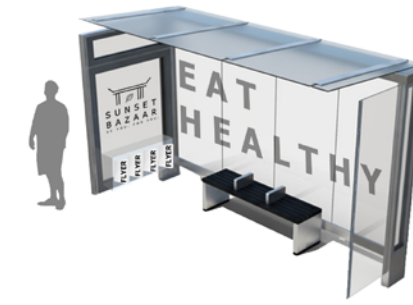


Extending the Consumer Network & Branding

Sunset Bazaar consists not only the market, but also incorporate various ways to make healthy food and meals more accessible in the neighborhood. To increase healthy food diet and customer reach, we design branding for the market.



SUNSET
BAZAAR
BY YOU. FOR YOU.



Preface

In 1852, the New York Daily Times commissioned a 31-year-old Frederick Law Olmsted to conduct an immersive research journey through the Southern slave states. The country was headed toward civil war, and the paper dispatched young Olmsted for his ability to reveal the cultural and environmental qualities of landscape in a narrative voice. Today, landscape architecture, urban design, and planning—disciplines Olmsted helped to shape—continue to grapple with the economic, political, and ecological conditions rooted in systems he documented so vividly 165 years ago. This seminar investigates the relationship between major contemporary issues in urban discourses with the documented conditions of cities in Olmsted's 1861 book, *Journeys and Explorations in the Cotton Kingdom*. The seminar positions Olmsted's journey not only as source material but also as methodological proposition, in reflection on the significance and methods of research and representation in design practice.

0 A Romanticized Landscape 4 Uncovering the truth of enslaved history

Location: St. Charles Parish, Louisiana
Size: 1,200 Acres
Term: GSAPP, Spring 2020
Team: Danwei Pan, Menghan Zhang
Coordinator: Sara Zewde

The sugar plantations exhibit a landscape complex of distinctive visual settlement features. Long, straight ditches divide the fields, laying perpendicularly to the Mississippi River. Olmsted introduces Fashion Plantation as a romanticizing version of the slave plantation, making light of the condition of forced, enslaved life.

Today, many parishes along the river still reflect how the plantation influenced the landscapes and the economy. What remained on these lands were largely replaced with suburban real estate development. People prefer not to show the cultivation activities and slavery are central to this history. The master mansions remaining today are used for tourist attractions. The architecture of the suburban homes is also modeled after the master's mansions. The parishes were only adding signages that only document the name of the plantation and plantation owner if the plantation no longer exists. Memories can't be traced and the collective memory of the enslaved workers once living on these lands is missing. The methods of remembrance were homogeneous and were fantasizing about the landscape. Real estate shouldn't be developed at the expense of covering up the history and wiping out diversified memory, but instead, finding a juxtaposition between the past and current that makes the memory of this place last.

**ADDITIONAL MONEY
DURING CHRISTMAS**
1 Dollar/hogshead of sugar



Extra flour

EXTRA RATIONS
During the grinding season



Hot coffee



GOOD CLOTH



WELL-MADE COTTAGE
with broad galleries



BACON & MEAL



TOBACCO

I'd rather be free! If I was free, I'd have all my time to myself! I'd rather work for myself! And I wouldn't get poor, I would get rich!

SYRUP & MOLASSES



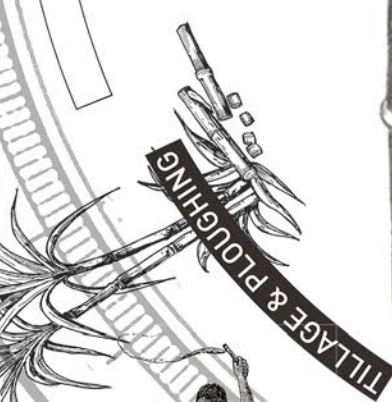
SYRUP & MOLASSES



**ENSLAVED WORKERS
SEEK FOR FREEDOM**
Flower in master's backyard



CHICKEN THIEF BOAT
Sell parts to floating vendors



TILLAGE & PLOWING

CLEAN FURROW FOR DRAINAGE



SUGAR-MANUFACTURING



GRINDING SEASON

GRINDING SEASON



January

February

March

April

May

June

July

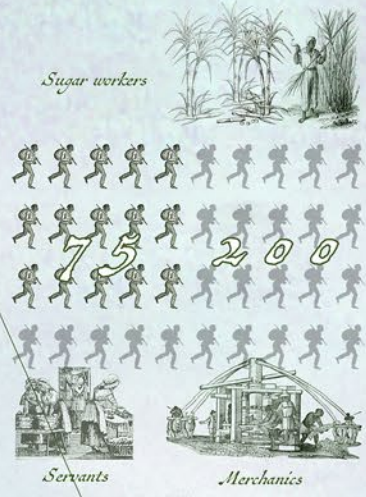
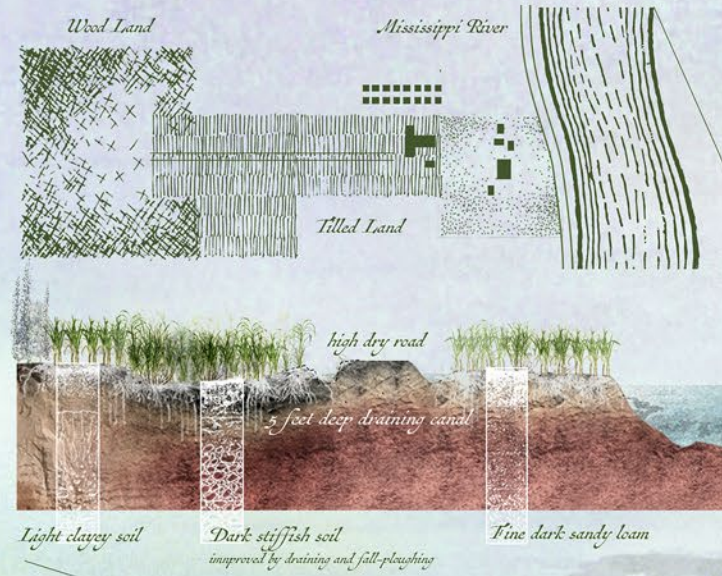
August

September

October

November

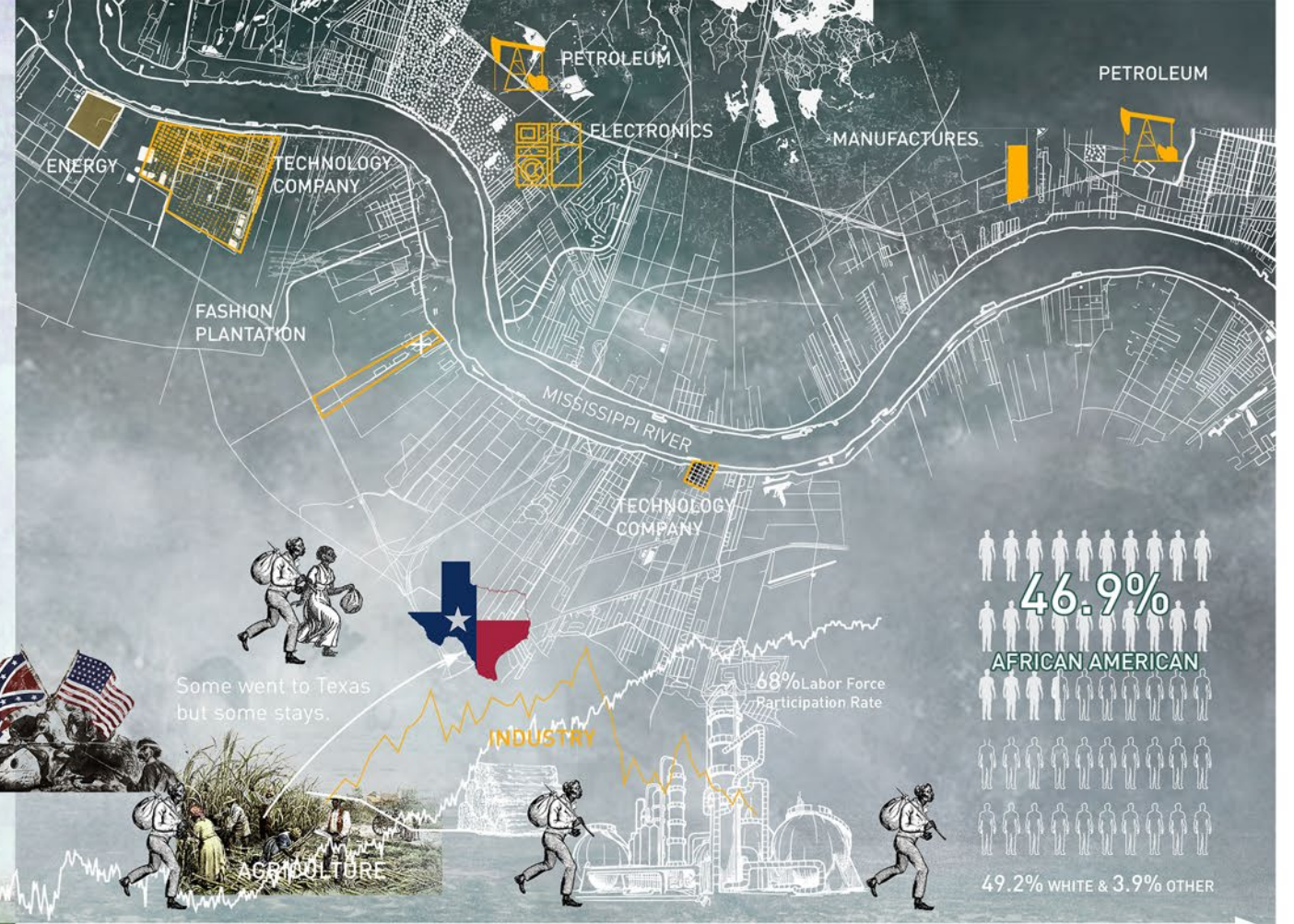
December



1743 Along the flat German Coast, the first serious attempts at levee building began.

St. Charles Parish, St. James Parish, and St. John the Baptist Parish made up an historical area.

1795 ~ 1860
Growth of Louisiana Sugar Industry



1865 After Civil War, former slaves suffered most to make a living. They returned to the plantations and work for a wage or a share of crop or given land.

1900 The industry occupied farm. Oil was discovered and petroleum industry came in, which was money source for people who remain.





RIVER PARISHES TOURIST COMMISSION

Assets exceeded its liabilities by **\$1,144,786**
\$58,911 Revenues per year
\$507,882 Received & disbursed Parish taxes
\$210,000 State appropriation funding

DOWN PAYMENT

3 & 4 BAD CROP WILL RUIN

BORROW MONEY OF JEWS IN NEW ORLEANS
NO LESS THAN 25%

\$150,000

IF FIRST CROP BAD

IF FIRST CROP GOOD

6 ANNUAL INSTALMENTS
10% INTEREST PER YEAR



Bankers in new orleans encouraged people to borrow money to invest sugar plantation

NEW ORLEANS



NOTTOWAY PLANTATION



HOUMAS HOUSE PLANTATION



WHITNEY PLANTATION



SAN FRANCISCO PLANTATION

PALO ALTO PLANTATION

BATTLE OF KOCK'S PLANTATION

ST EMMA PLANTATION



JUDGE FELIX POCHÉ PLANTATION

LAURA PLANTATION

OAK ALLEY PLANTATION

DESIRE PLANTATION

EMILIE PLANTATION

EVERGREEN PLANTATION

ORMOND PLANTATION

DESTREHAN PLANTATION



FIELD SLAVERY WAS BAD BUT HOUSEHOLD WAS PRETTY ALL RIGHT IF NOT AN OUTRIGHT SWEET DEAL...

BLACK WORKERS WERE STRONGER WITH THICKER SKIN THAN WHITE AND THUS DID NOT REQUIRE AS MUCH FOOD OR REST, TOLERATED PHYSICAL PUNISHMENT.

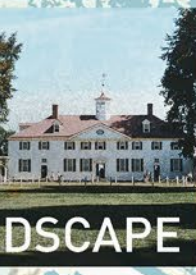
SLAVEHOLDERS "TOOK CARE" OF THEIR SLAVES OUT OF GOODNESS OF THEIR HEARTS, RATHER THAN ECONOMIC INTEREST.

"LOYALTY" IS A FAIR TERM TO APPLY TO PEOPLE HELD IN BONDAGE SINCE THEY WERE GIVEN FOOD.

POOR WHITE PEOPLE HAD IT JUST AS BAD AS SLAVES DID.

LISTEN, I JUST WANT TO SAY THAT DRAGGING ALL THIS SLAVERY STUFF UP AGAIN IS BRINGING DOWN AMERICA!

YOU WON'T BELIEVE THE QUESTIONS I GOT ABOUT SLAVERY WHEN LEADING TOURS AT PLANTATIONS.



FANTASIZING LANDSCAPE

0 PHOTOGRAPHY
5 light, people and space

Location: Manhattan, New York
Term: GSAPP, Fall 2019
Team: Individual
Instructor: Michael Vahrenwald

The series of photographs document my use of light or color to elevate the subjects of photography, from adding significance to the un-significant, making the everyday monumental, to highlighting one aspect of a place over another. Both the exterior and interior of space will influence the way people interact with it, my job is to capture these tiny moments.

Light

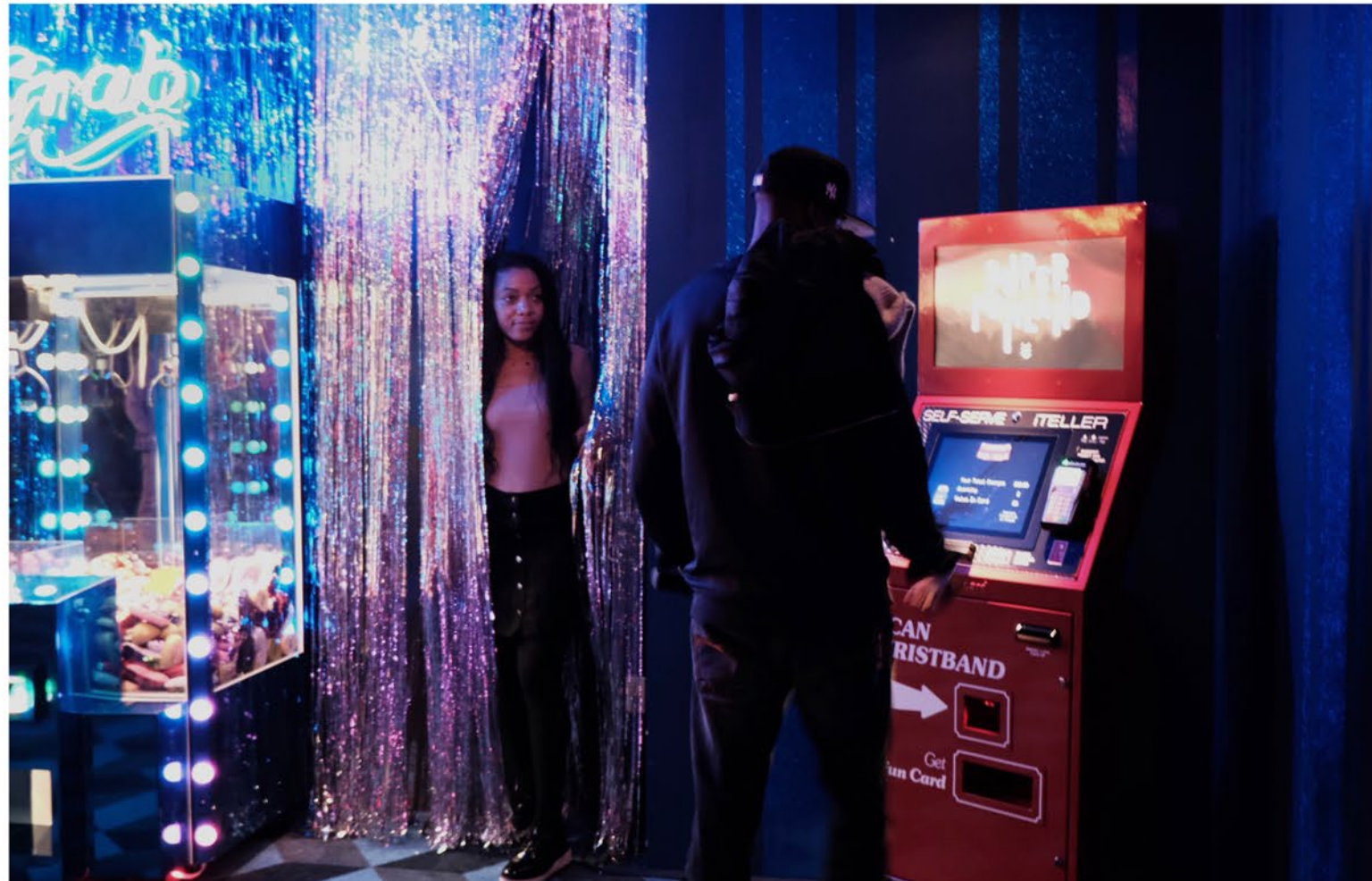
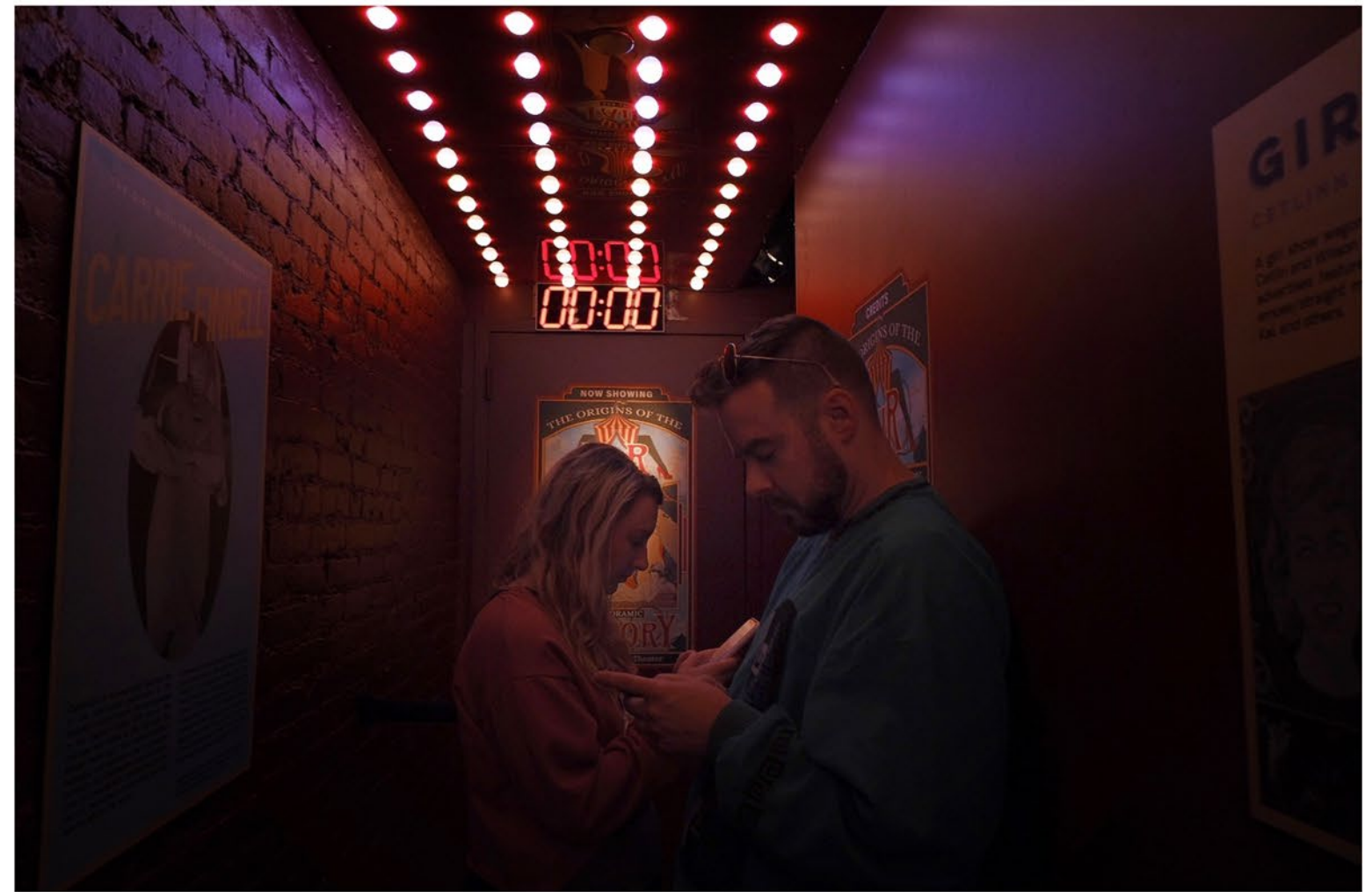
The spaces between architectural form are the manmade crevice which allowing transformation to happen, from light to shadows, from warmth to coldness, going back and forth.





People

A creative space is where people who inhabit it to change the way they behave.



Space

The natural and manmade spaces are closely related to each other. Designing a shared space for both is a goal.

