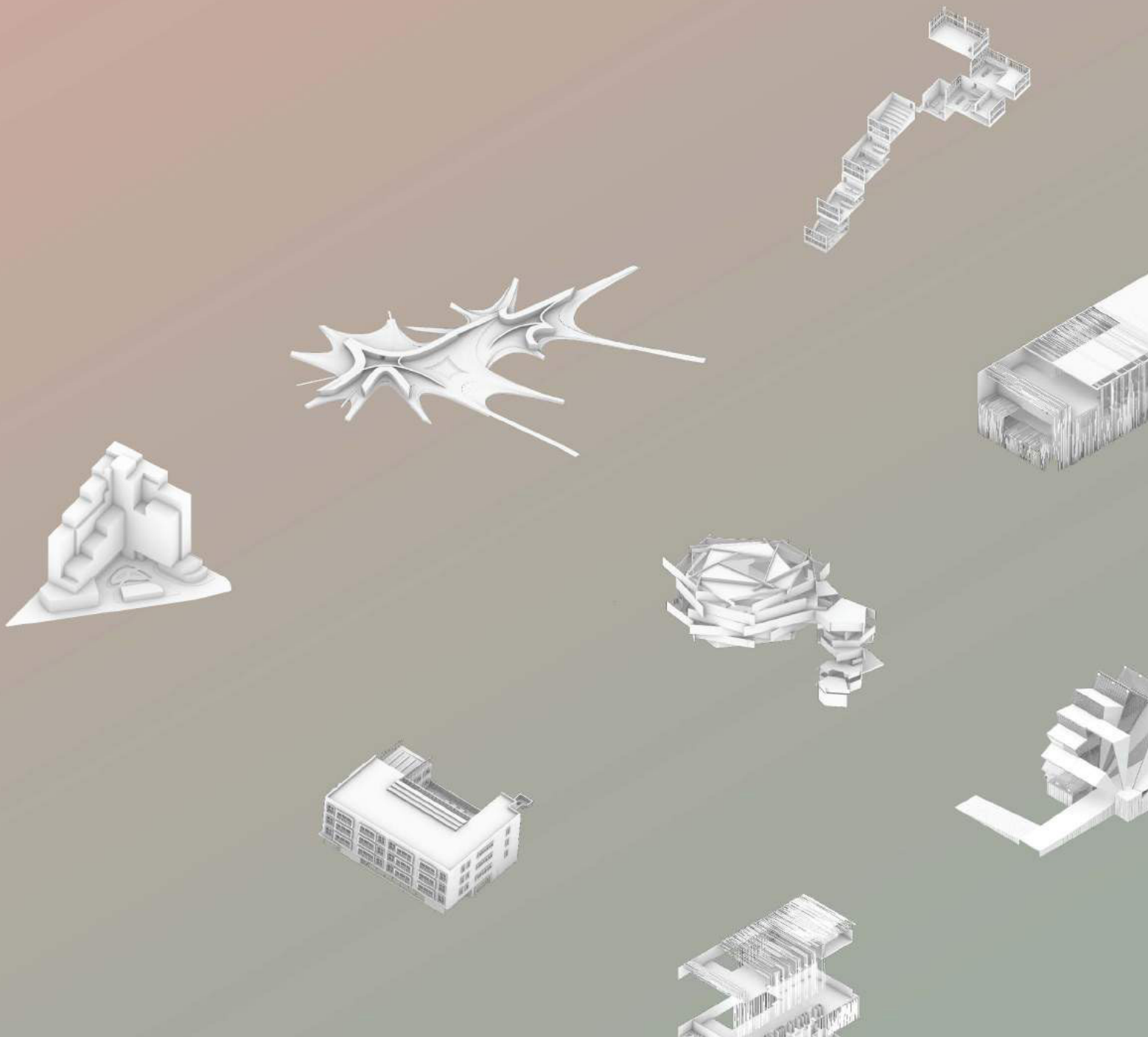


JUNFAN CHEN

PORTFOLIO OF SELECTED WORK

[COLUMBIA UNIVERSITY GSAPP 2021 - 2022]





The Community Express 7

7 Line as Spatial Agency for Community

Flushing, New York | Summer 2021

GSAPP urban design studio

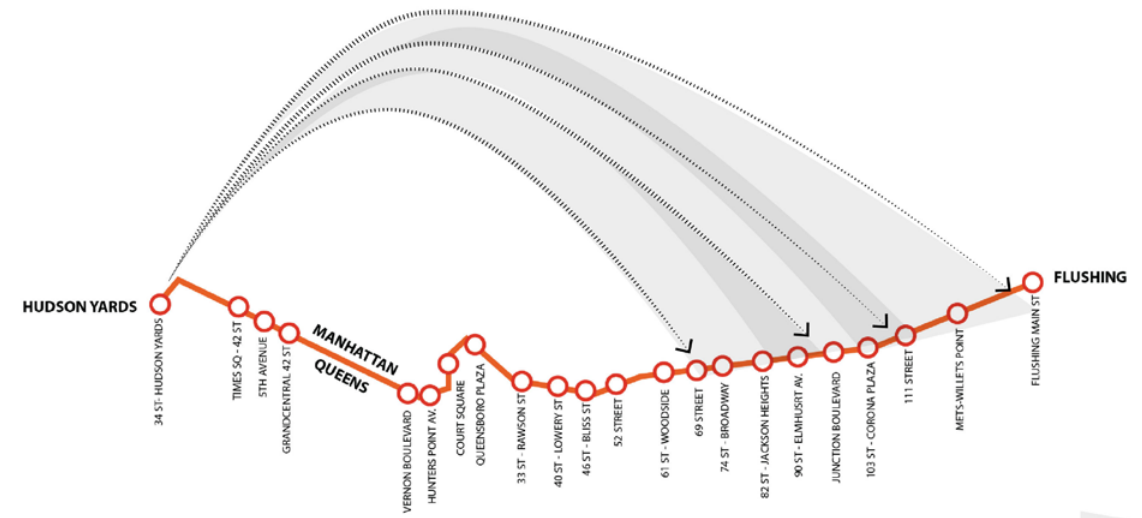
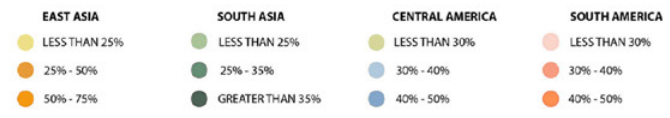
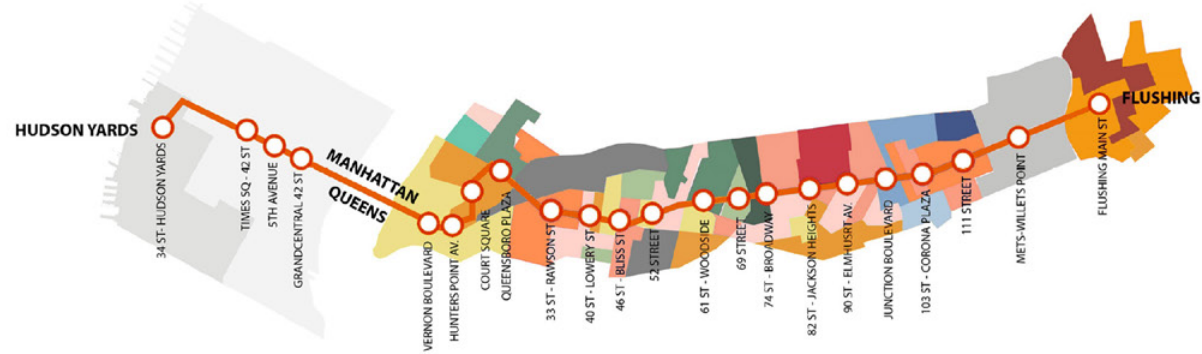
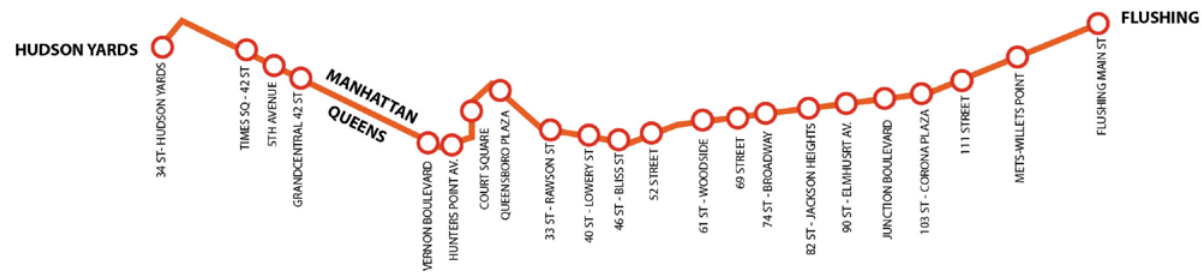
instructors: Nans Voron, Sagi Golan, Tami Banh, Austin Sakong, Jae Shin,
Galen Pardee, Sean Gallagher, Candelaria Mas Pohmajevic

partners: Giulia Chagas, Galina Novikova, Jie Kong

The Seven Line subway connects the most ethnically diverse neighborhoods in the world. 47% of Queens population is Foreign-born immigrants. While the seven line is a large connector of different cultures, it also reveals the inequitable income patterns along neighborhoods within the city.

“What does it mean when several communities join together to form a collective power and purchase a piece of infrastructure or Right of Way?” We aim to protect this community with a framework capable of providing spatial agency, we celebrate local culture, support an entrepreneurial coalition and strengthen a sense of place and belonging for the immigrant community.

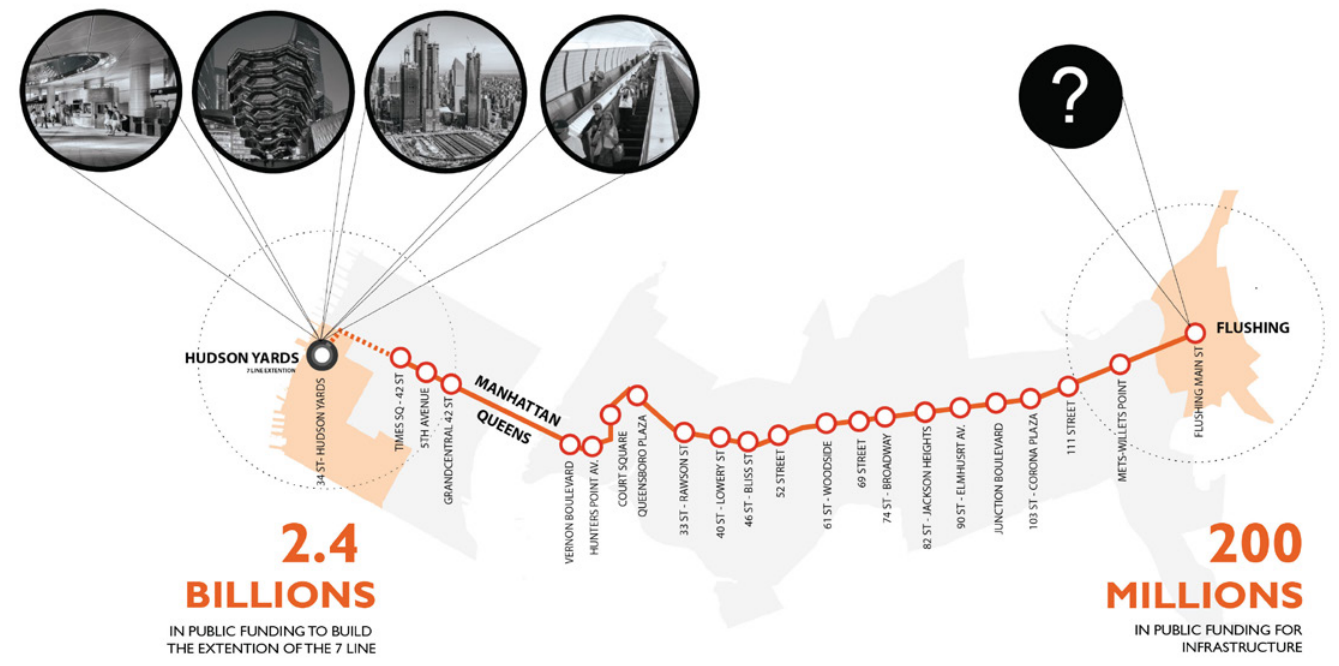
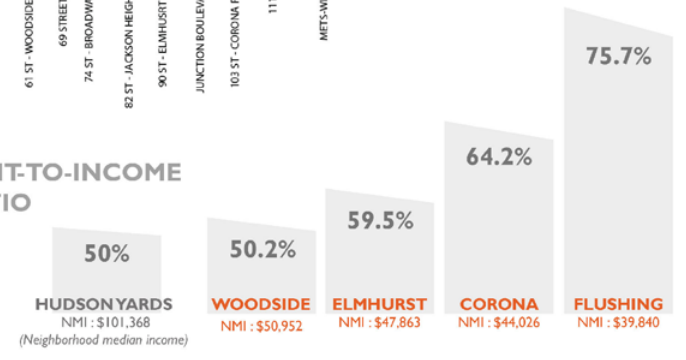
along the 7 line



AUTHORITY for Community Investment

The difference between public infrastructure and income pattern highlights the sum of inequity in NYC. This authority aims for supporting the diverse community and serving needs from the neighborhoods by redistribution of tax revenue along the 7 line.

RENT-TO-INCOME RATIO



Looking at the 7 line, an inequitable income patterns along neighborhoods within the city is significant. As an example, on one end is Hudson Yards, a wealthy district recently developed for over 20 billion dollars, while Flushing and Corona have remained bustling immigrant communities facing displacement and poverty.

people along the 7 line

I rarely go to the big park because I am always working. It would be good if I can go there and relax.



- Vendors occupies roadways spaces, makes them exposed in a danger environment

Displacement

- Gentrification makes low-income population **HOMELESS**

I am living in a very small room which cost \$800 per month, which is a lot for me. I have no roommate.

Displacement



- Shop rents have increased and vendors occupy streets

Gentrification

It was very hard to start my business when I first came here in Flushing. During COVID we were impacted a lot and the rent keeps increasing.

Communication with customers is challenging for me. My English is not good as an immigrant workers but I don't have time or money to go to a language class.

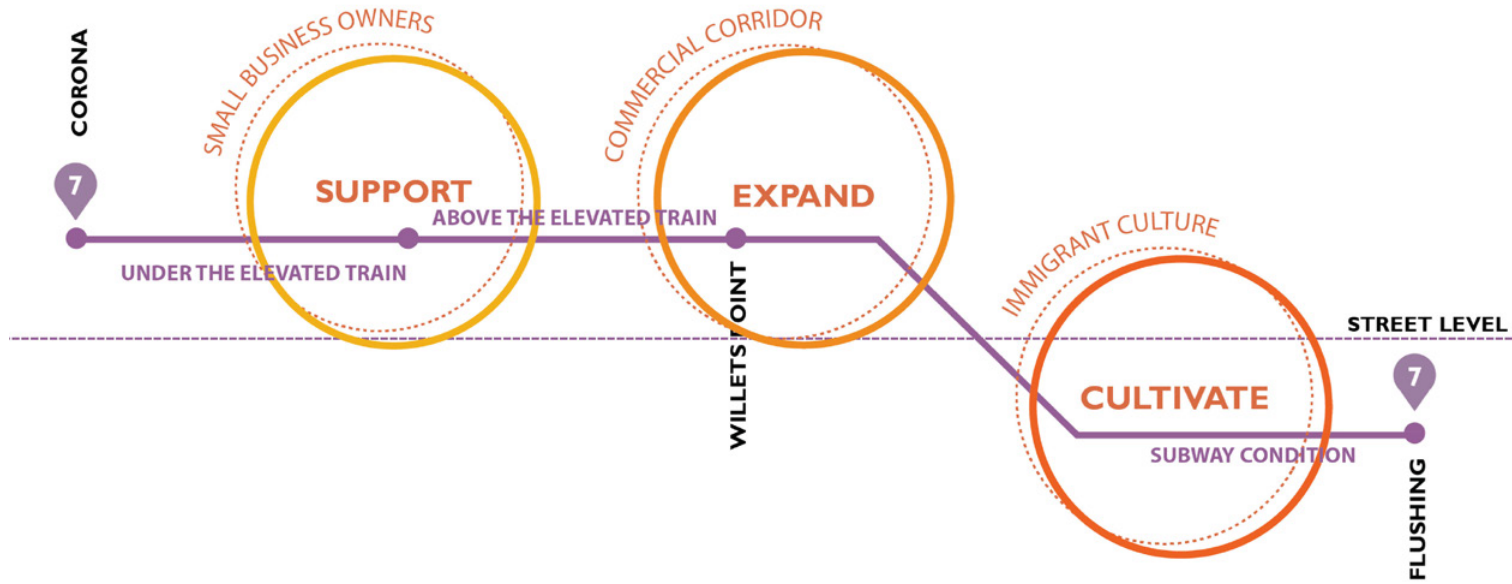


- High-rise and trendy construction attracts tourists and high-income residents

The streets feel wider and more spacious than other parts in New York. The Highline makes getting downtown super accessible by walking! I love living in Hudson Yards.

After doing our research, we have reached out to the local community to better understand their stories. After conducting the interviews, we got a better understanding of the community needs. One of the main issues such communities are facing is displacement. New developments are moving into the neighborhood which has increased commercial rents rendering this unaffordable for local immigrant owned businesses. At the other end of the 7 Line, both Corona and Flushing fall below the Poverty line and reflect a common reality of economic insecurity.

the community express 7 with authority for community investment



We propose a new community land trust model, utilizing underdeveloped and vacant lands along the 7 line to provide agency to small business owners and to further mitigate financial struggle. Partnering with mta and dot, we propose a new community owned R.O.W framework.

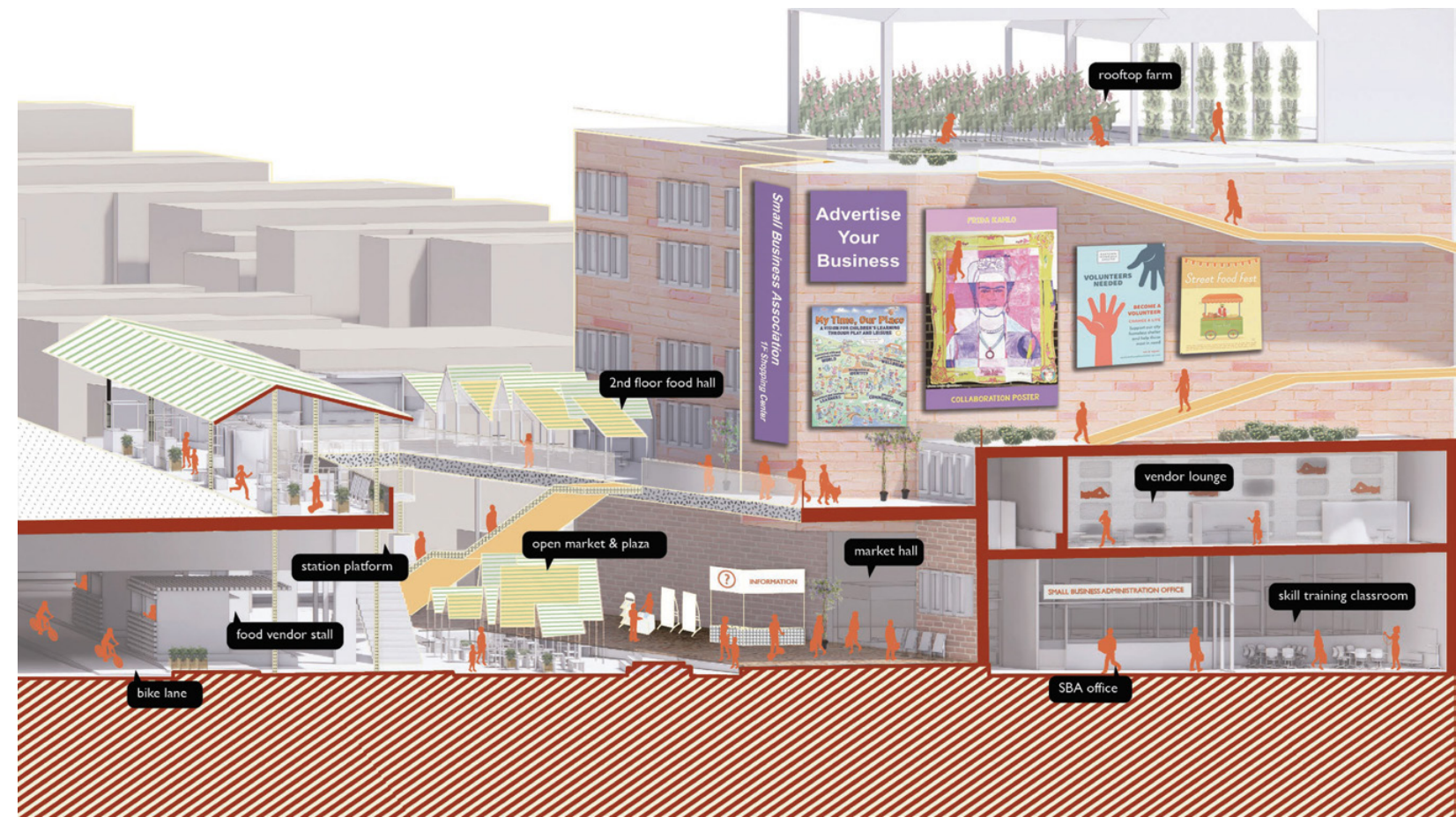
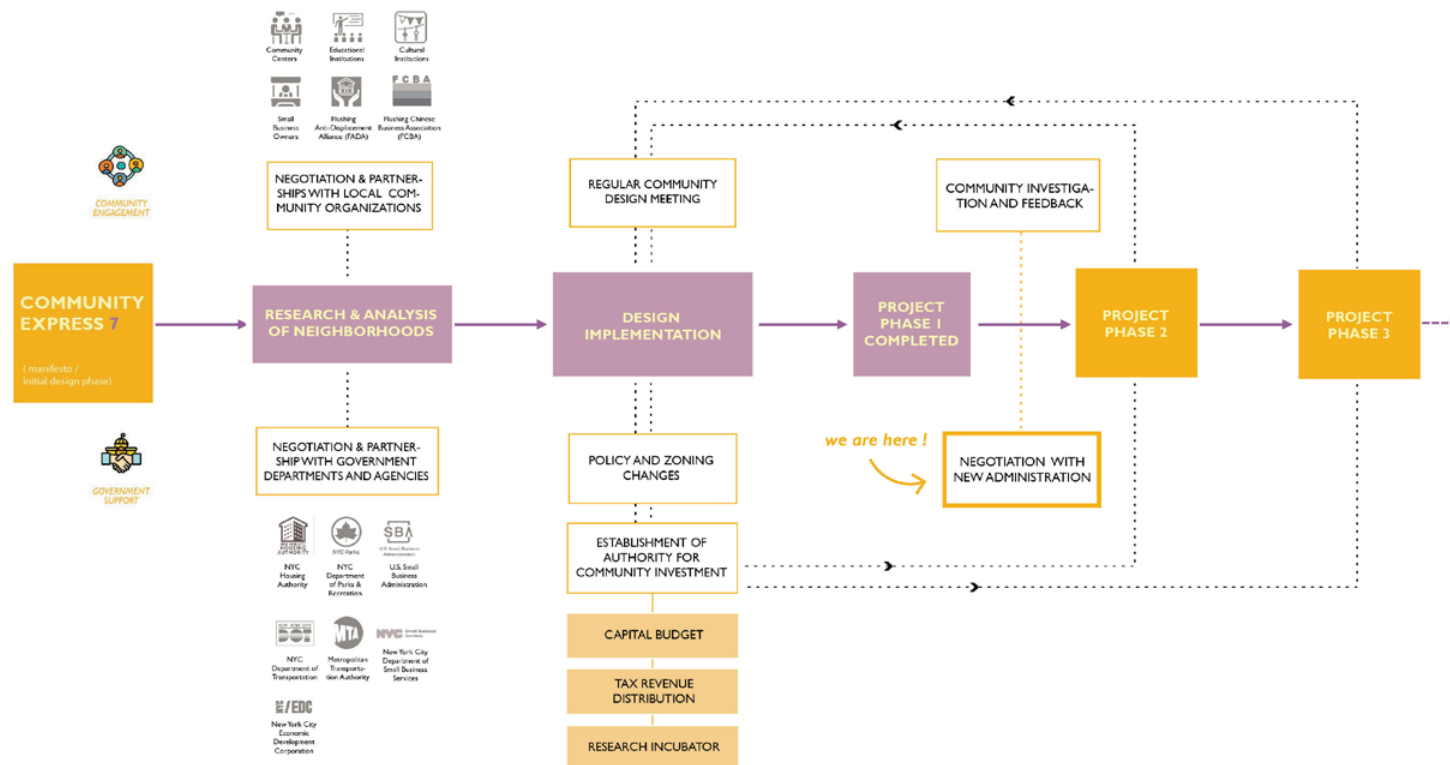
These spaces acquired by CLT are designated for small business owners, providing public amenities, business opportunities and community resources.

Along the 7th line, our concept is to create a social-economic system using the underdeveloped spaces as well as the existing infrastructural system. Three larger system anchor points are located at the intersections between the 7 line and the waterfront, the Flushing Meadows Corona Park, and the open spaces at the neighborhood edge of Corona. Smaller-scaled interventions are dispersed along the 7 line. Each anchor points have different emphasises, while together serving as a supportive network for the immigrant-owned small businesses for their economic development and wellbeing to form a stronger sense of community and ownership.



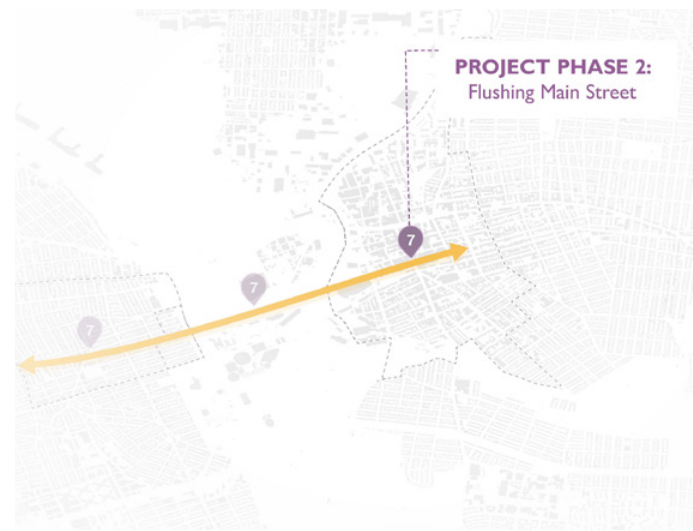
project phase 1: corona plaza

Relating back to the physical context of the site, the first anchor point aims to create better commercial spaces for local small business owners and vendors, forming a community center for the small business owner, including programs such as language and skill training, relaxation spaces for their wellbeing, as well as community support groups.

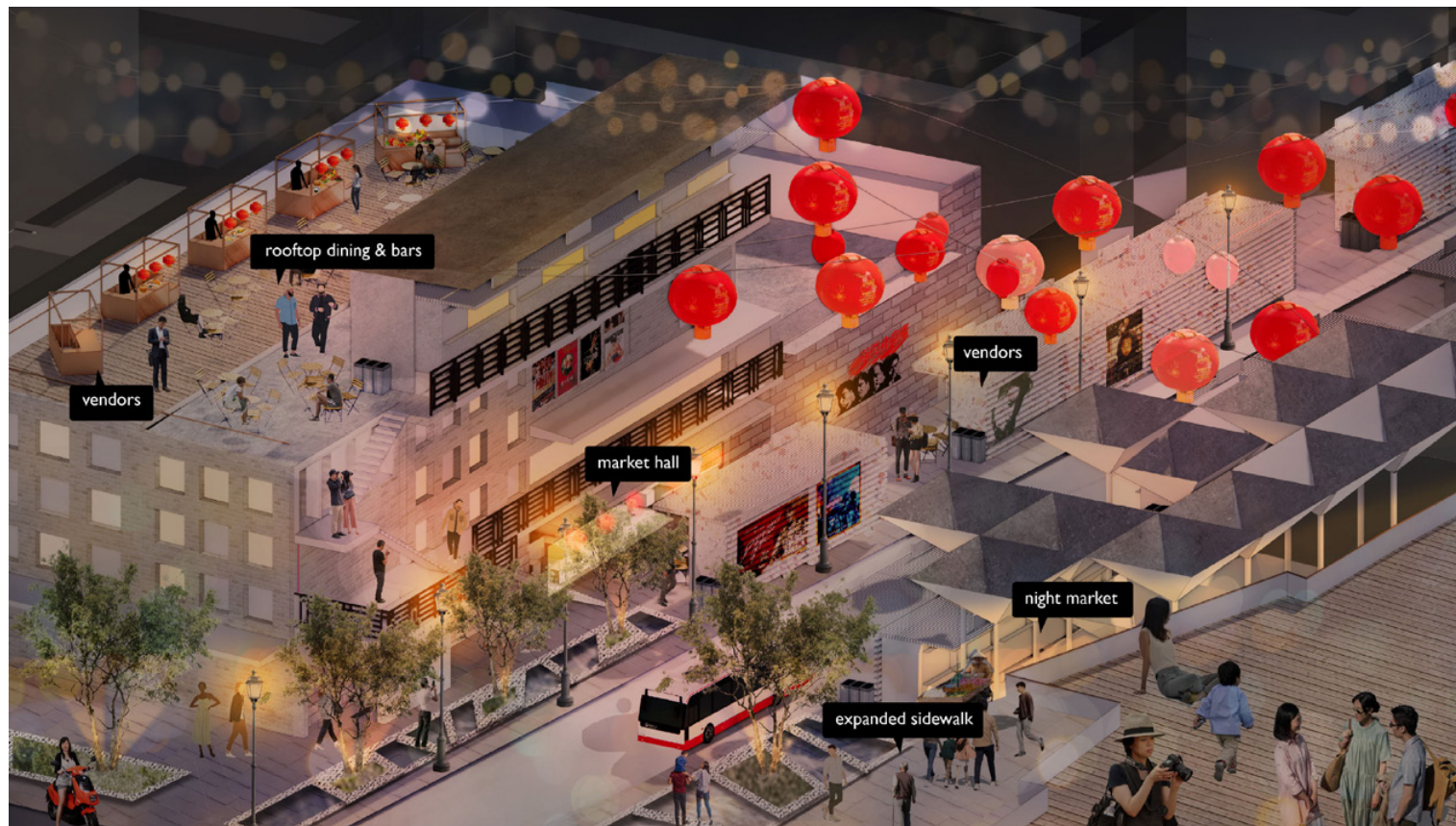
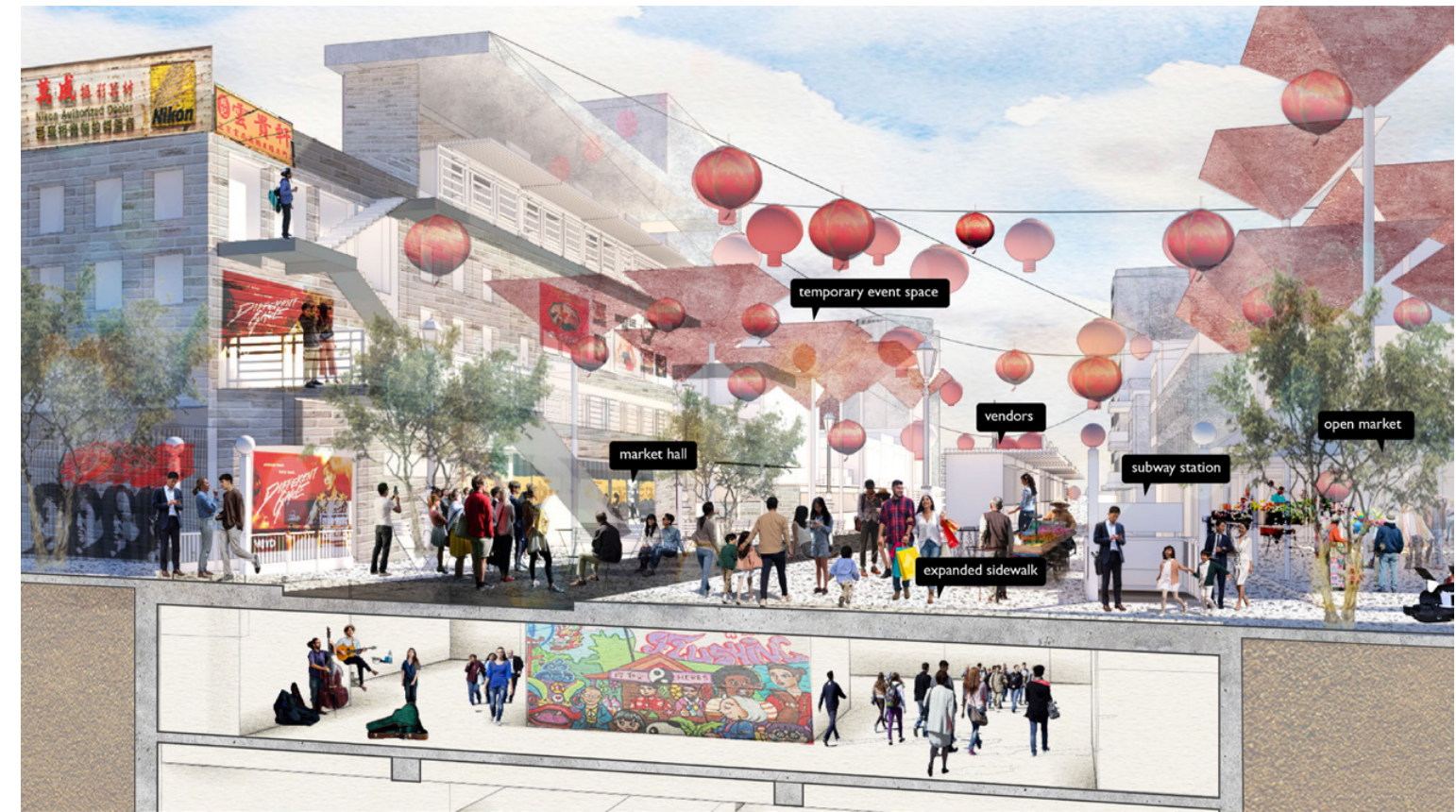




project phase 2: flushing main street



At Flushing, the sidewalk is expanded and streetscape is improved to attract more people to come both in the day and night. The open rooftop dining spaces are going to benefit some of the food vendors and small local restaurants as well. In night time there are still many activities going on on the street. Night market and many traditional festival can happen here, keeping the community members engaging in public events and also attracting people from other part of the city to enjoy the cultural exchange here.

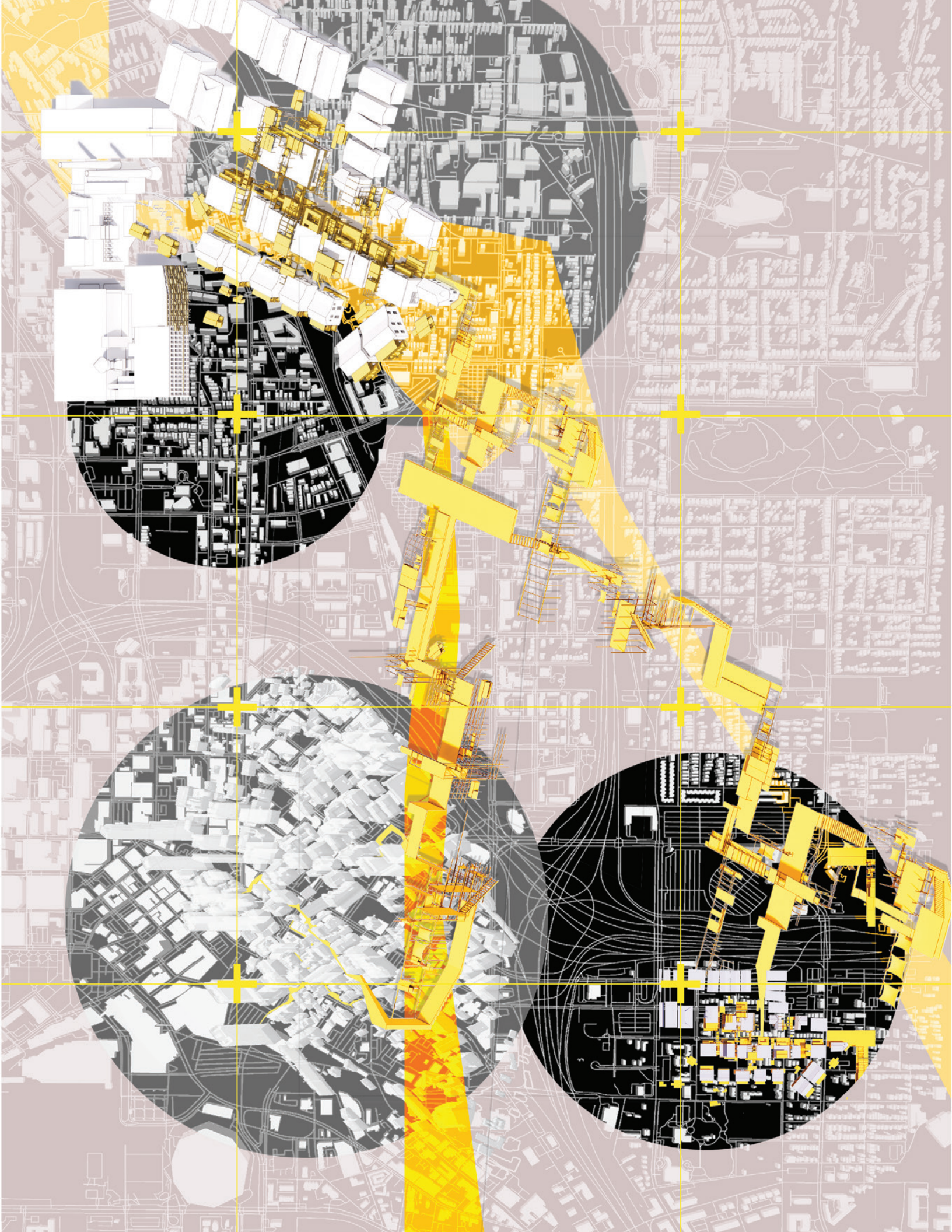


project phase 3: flushing main street



The diverse ethnic identity is what we, the community board always want to preserve and celebrate. The affordable housing are customizable and flexible with the base architecture provided by the designers and the neighborhood can actually customize their house base on their needs and cultures. The diverse cultural identities being preserved and expressed from the architecture and the flexibility that it provide to accommodate the residents' needs.





Community Through Domesticity

Cabbagetown: Atlanta After Property

Cabbagetown, Atlanta, Georgia | Spring 2022
GSAPP urban design studio
instructors : Emanuel Admassu, Nina Cooke John,
Chat Travieso, Lexi Tsien
partners: Jie Kong, Jake Tiernan, Sdynee Sampson

Cabbagetown is an artsy neighborhood with cozy eateries in Atlanta nowadays while it used to be a mill village established by the mill workers in 1886. However, as the mill shutdown, owners sold many of the factory homes out from under residents. Investors seeking to make Cabbagetown a “Gingerbread Village” bought up properties, which then sat vacant due to speculation and transforming the homes into AirBNBs.

We envision a future for Cabbagetown where property is not the central pillar of domesticity. Legacy residents can return, while also inviting those who need it. Semi-nomadic occupation of houses will expand domesticity beyond property and blood relations to the community at large.



The **Cherokee family structure** was matrilineal, meaning children joined their mother's clan and rarely saw their fathers. Domestic relations were based on communal ties rather than household ones, with extended family and clan members flowing freely between houses as needed.

Europeans introduced more **rigid domesticity**, with women expected to stay home and provide childcare while men work. The domestic became grounded to the property one inhabits and immediate blood relations rather than communal ties.

The **mill** was constructed in Cabbagetown in 1886, and further expanded on European domesticity. **Single-family housing** was created and rented to workers, with many including multiple generations under one roof.

However, as the mill shutdown, owners sold many of the factory homes out from under residents. Investors seeking to make Cabbagetown a **"Gingerbread Village"** bought up properties, which then sat vacant due to speculation and transforming the homes into **AirBNBs**.

from Cherokee to a speculative industry



Whereas the Cherokee lived in an arrangement where the domestic flowed throughout the community, domesticity in Cabbagetown was confined to the walls of mill housing. This reliance on property as the central pillar of domesticity erased territorial and extended family ties, all while allowing the domestic sphere to become a speculative industry. Extra beds, rooms, and even houses became commodities to leverage rather than spaces to share.

geometries of resistance

the porch and its variations



encourage the stop-and-chat culture and interaction between neighbors



community backyard

flexible shared space for people to meet and children to play



general store as organizational spaces

The general stores, grocery stores, barber shops and more further give each street its own identity



geometries of the enemy

double porches were removed



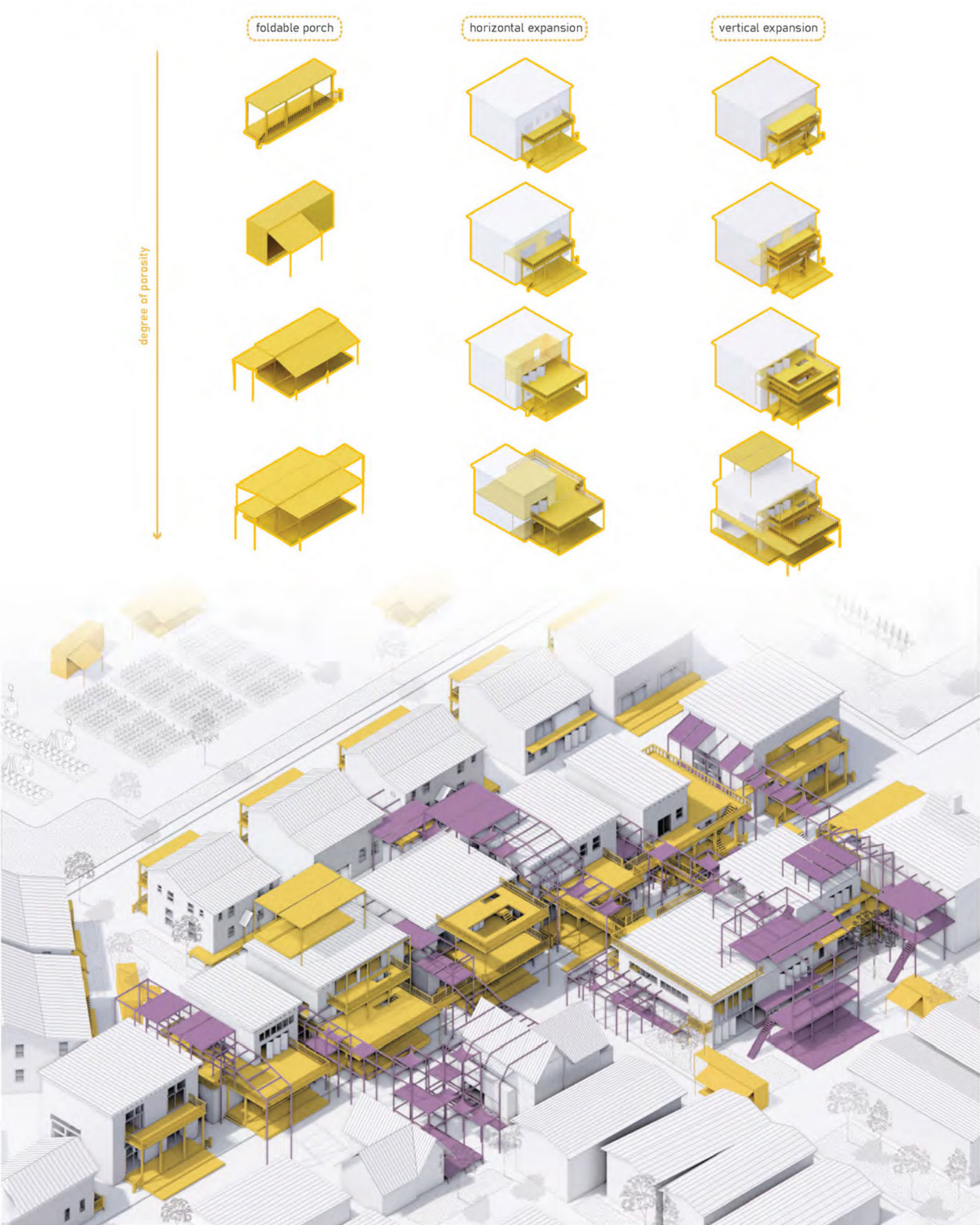
the porches were taken out for street parking and restaurants. Shrubs and trees are planted in front of the porches to stop the interaction between people in the neighborhood.



community backyard was replaced by parking

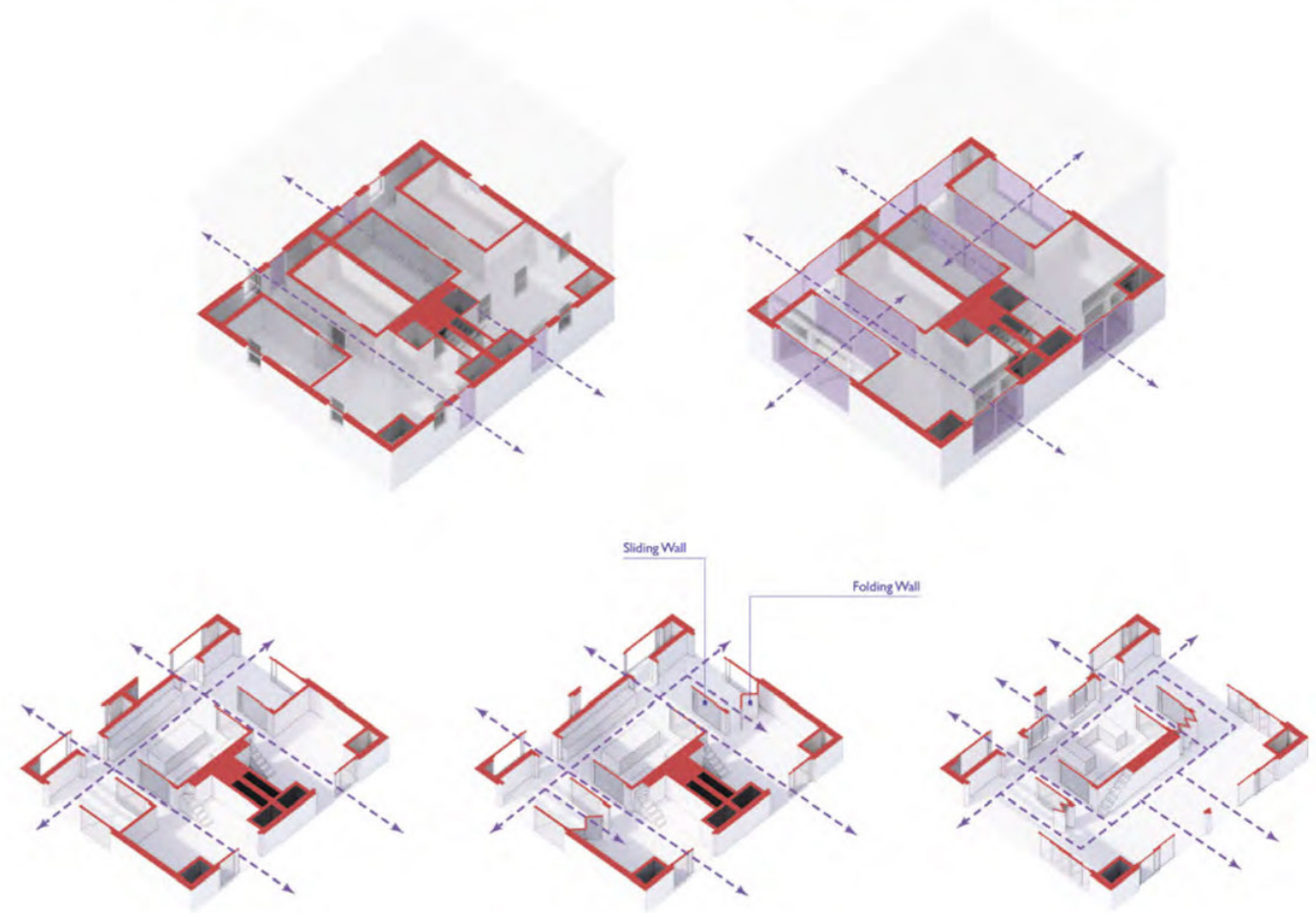
backyard was no longer a shared playground for the community





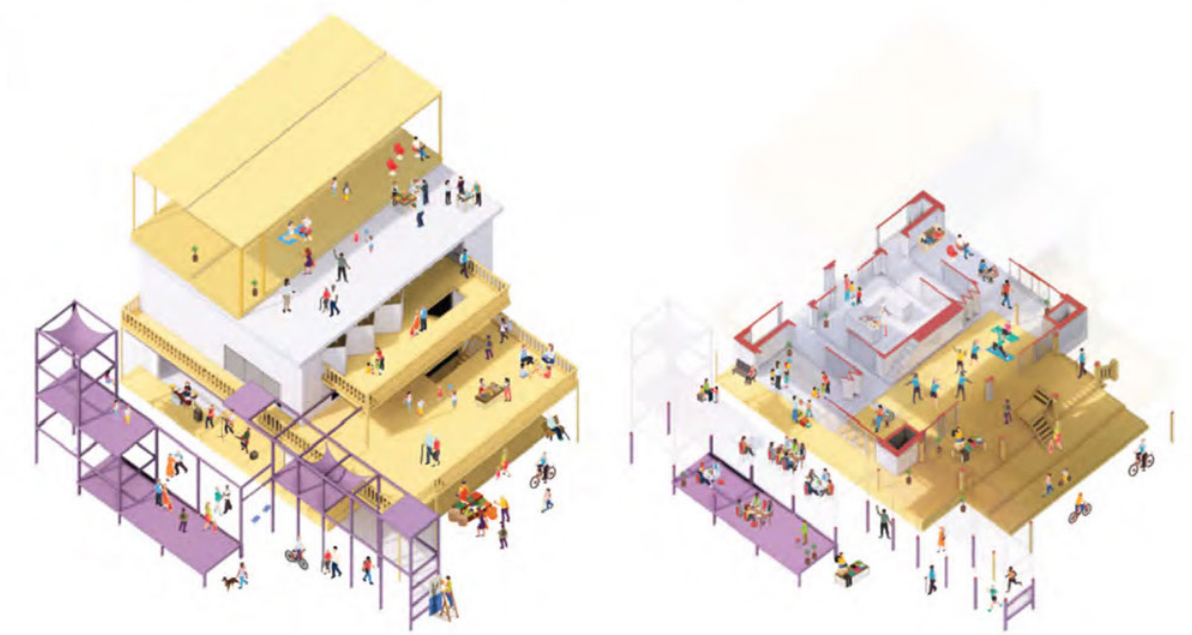
typical shotgun houses floor plan

flexible spaces with sliding walls



domestic sphere as a shared resource for the community

Adaptation and transformation of the typical shotgun house floor plan allow different uses of the space and various degrees of openness. With sliding doors placed at the facade and interior wall, a fluid circulation can be created from front to the back, from alley to alley. The flexible interior organization created by the sliding and folding walls generate different degrees of porosity, and these interior arrangements can be determined by the spatial needs for the occupants.





stage 01



stage 02



stage 03



stage 04



extended double porches



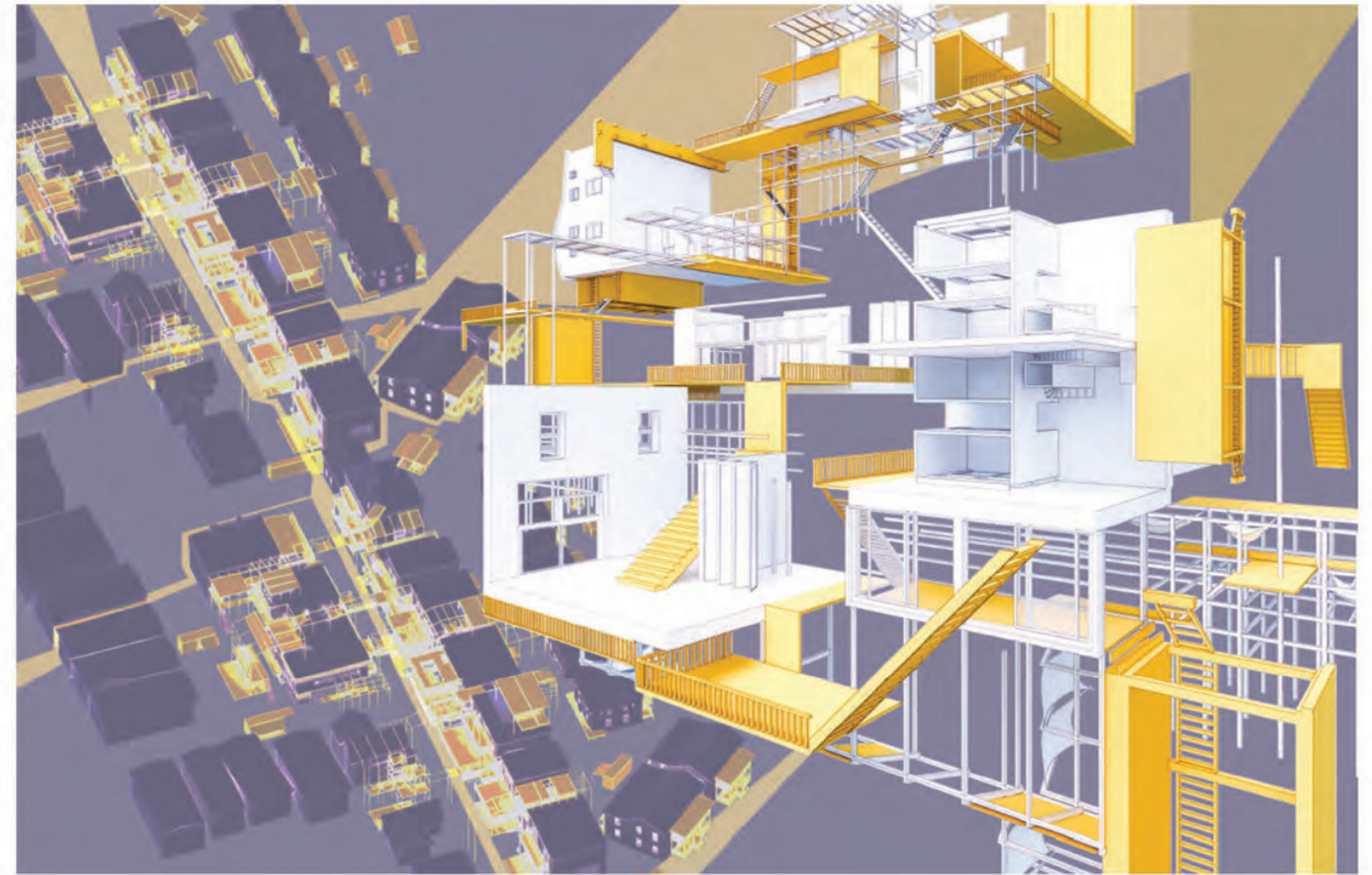
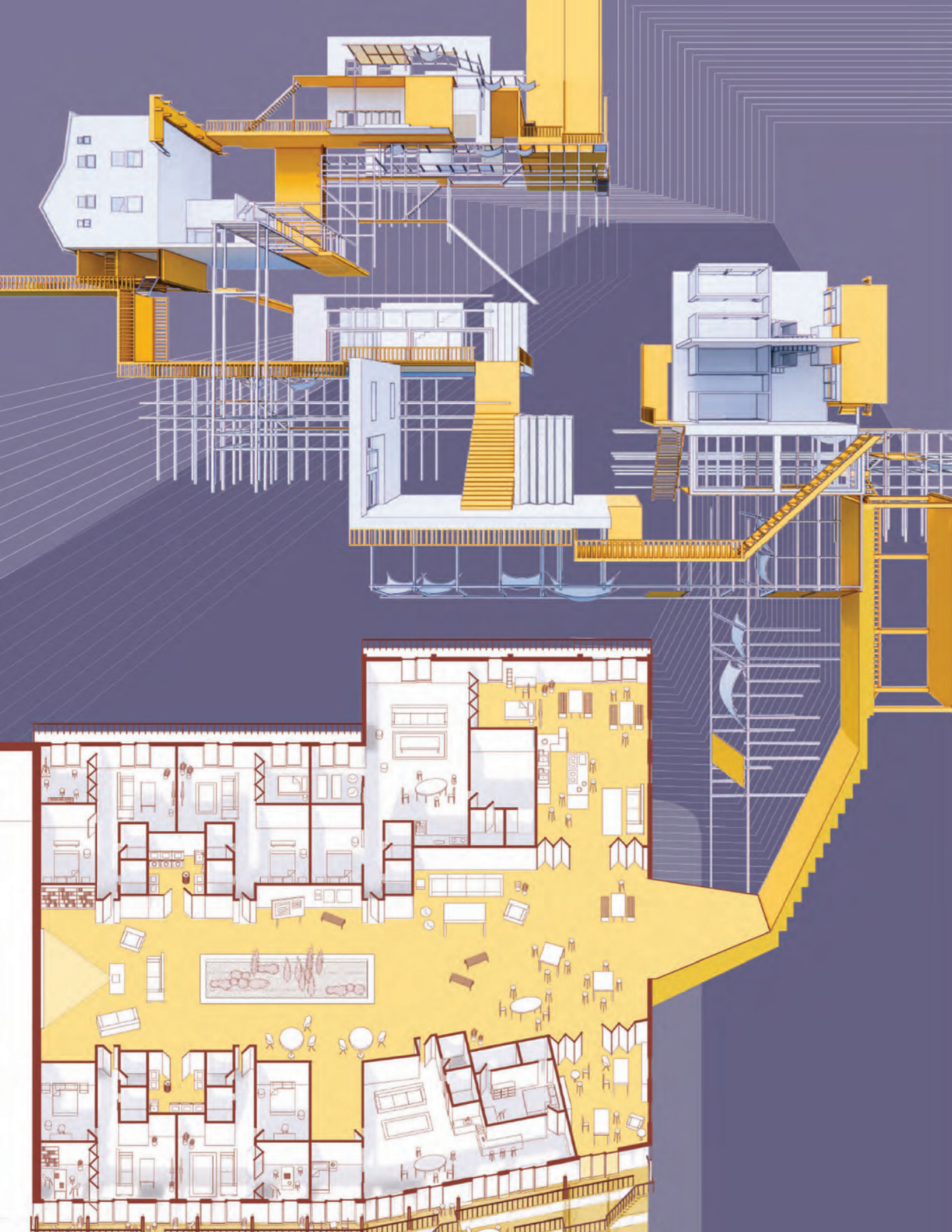
community backyard & shared alley

The extension of the domestic beyond the bounds of the house encourages new familial structures, in which relations are based on community ties rather than blood.

The new extended family can occupy this space differently, flowing freely between the house and the landscape as they gather, share meals, and celebrate Cabbagetown. The Cabbagetown family also provide for one another wherever needed, be it food, services, or childcare.



multi-functional interior space - childcare



unfolding the neighborhood

The notion of the street and porch continues to evolve inside the mill. Balconies on the mill become like the porch, while the hallways become the backyards. The folding and sliding walls at each floor also give the space flexibility that breaks the traditional apartment floor layout to create fluidity that allows for single resident occupation or production.

This new domestic structure unfolds the neighborhood, where the interior can be turned into exterior, backyards become front porches, and streets can be used for group activities or production, etc. The distinction between and the definition of spaces become ambiguous, and a semi-nomadic lifestyle arises.

At the end, we imagine this semi-nomadic lifestyle in Cabbagetown is going to thrive and spread out to other communities in Atlanta...



Seine Bight Water Rangers

Watershed Management / Development Strategy

Seine Bight, Belize | Fall 2022

GSAPP urban design studio

instructors: Kate Orff, Geeta Mehta, E Thaddeus Pawlowski, Johanna R Lovecchio, Adriana Chavez, Victoria E. Vuono

partners: Howie Jiang, Changbin Kim, Minsung Kim

Industries and development in Belize has heavy reliance on its natural bio-riches. However, due to lack of regulations and enforcement, natural resources are being exploited and rapidly deteriorating.

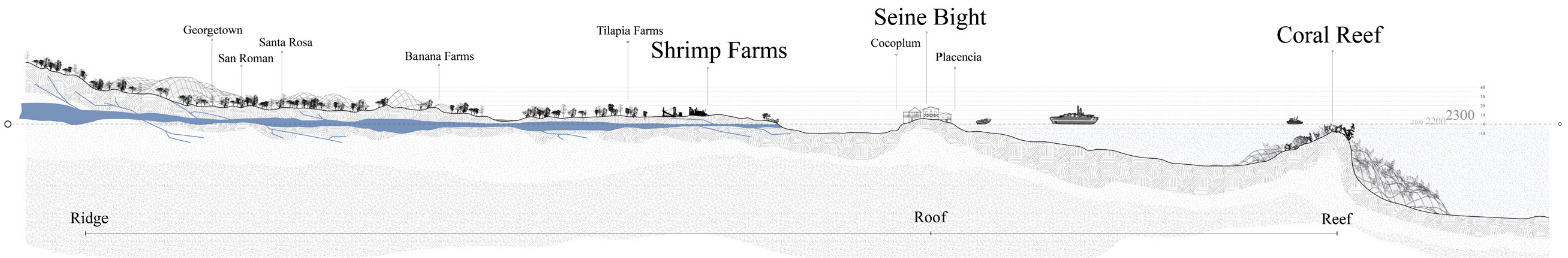
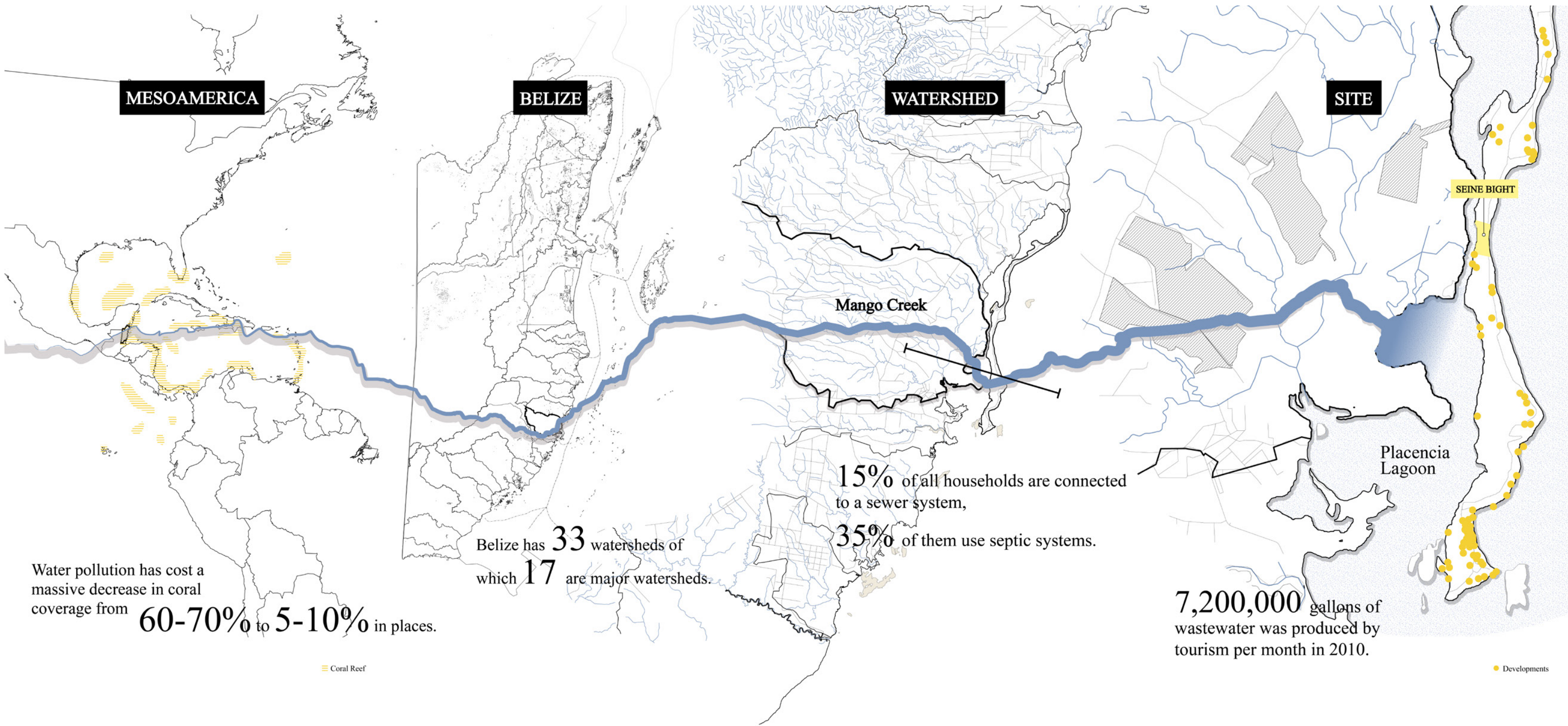
ICZM (Integrated Coastal Zone Management)

"Coastal planning is the process used to make better decisions about the use of the coastal zone. It allows for consideration of many different uses of the coastal zone at once which allows for better decisions about uses and reduces potential conflicts that may arise from overlapping sectors."

Water Rangers and IW/CZM

CZMAI's current coastal development strategy can be enhanced with the watershed management - the added layer of a development strategy in the context of the watershed rather than current district boundaries.

The new mission transforms to Integrated Watershed / Coastal Zone Management, IWCZM in short.





farming
80% domestic export

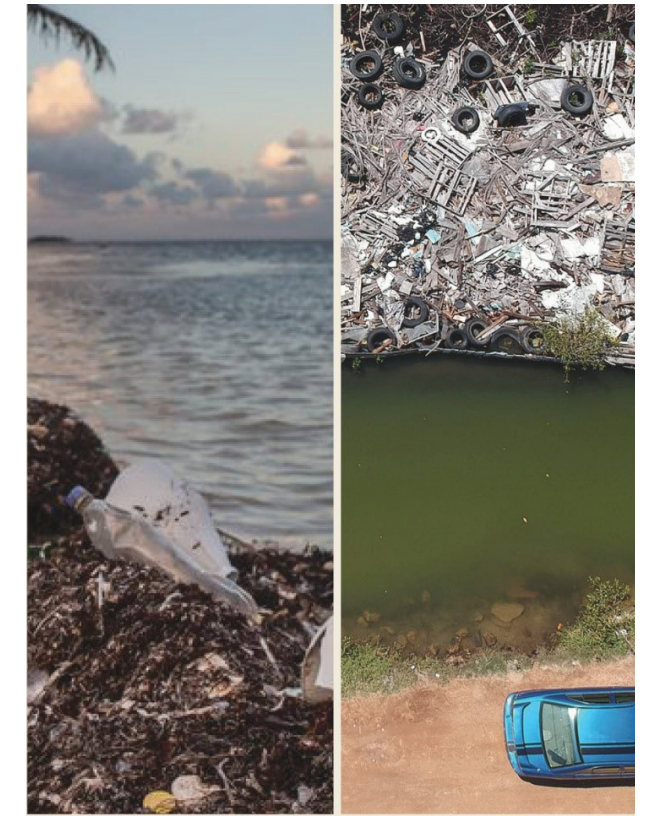
garifuna
17,000 garinagu

tourism
34% employed

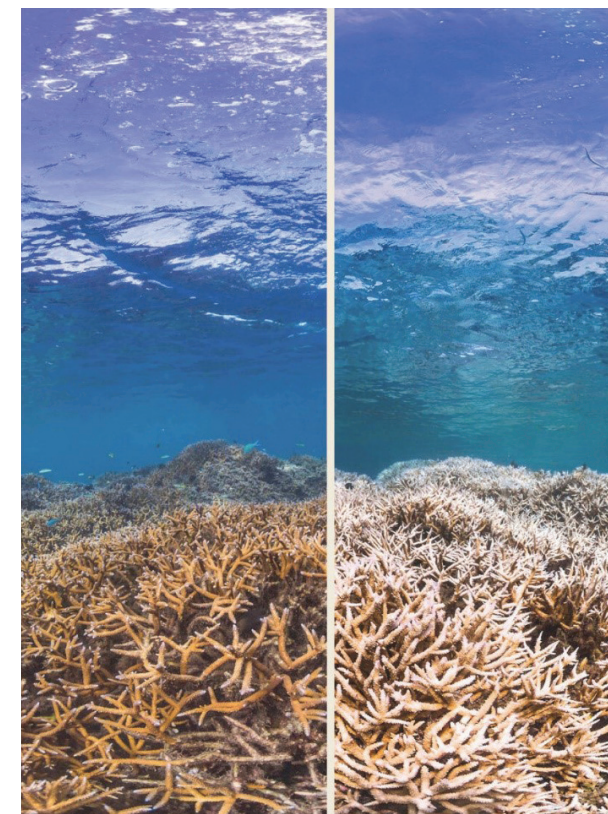
there are three distinctive sectors on our site. Ridge, corresponding to farming activities inland. Roof, indicating the Seine Bight community on the Placencia Paninsula, and Reef, relating to tourism activities which greatly impact environmental health.



housing
42% poverty rate



pollution
solid waste, farm waste, human waste

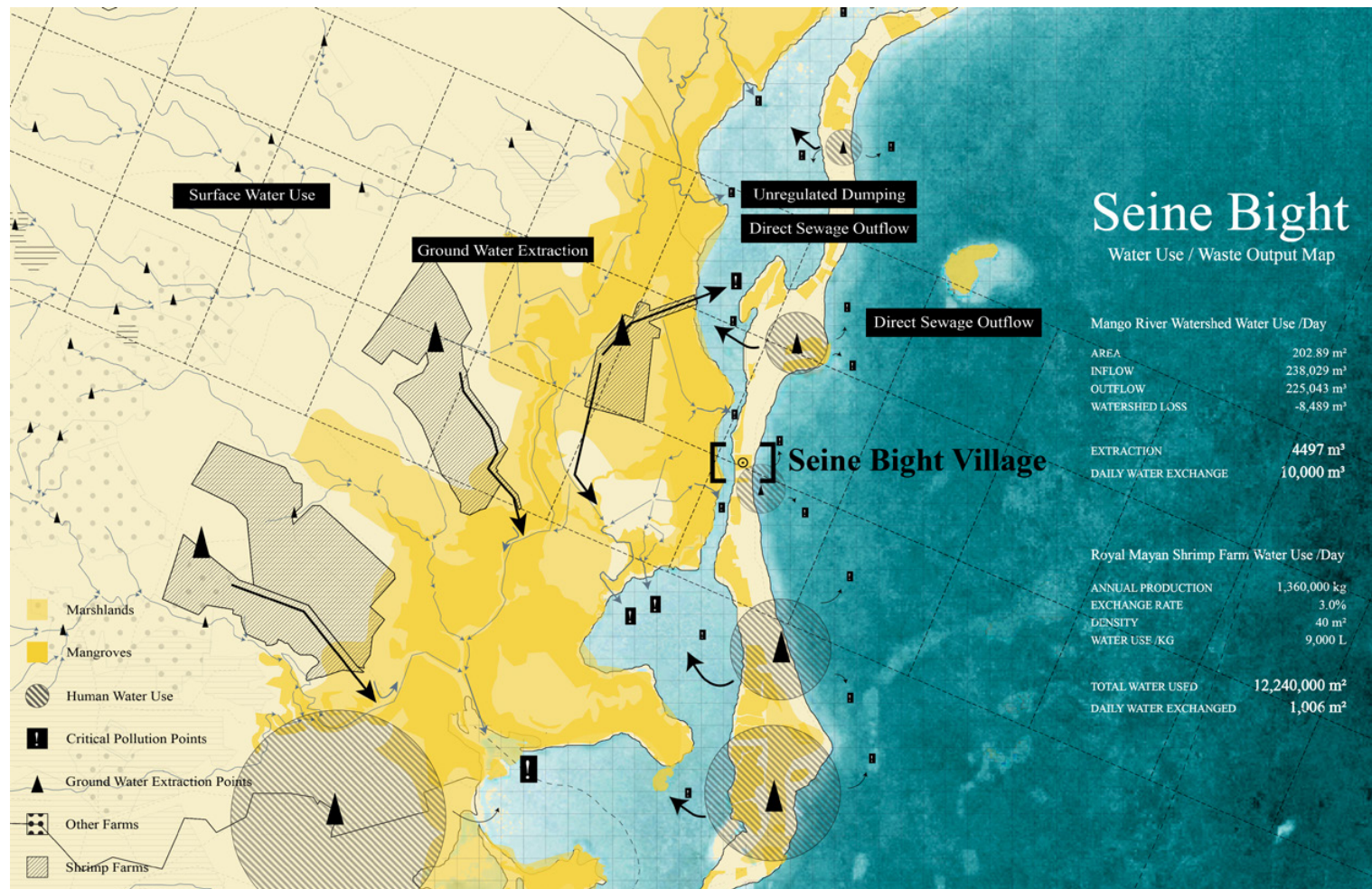


coral bleaching
40% damage from 1998

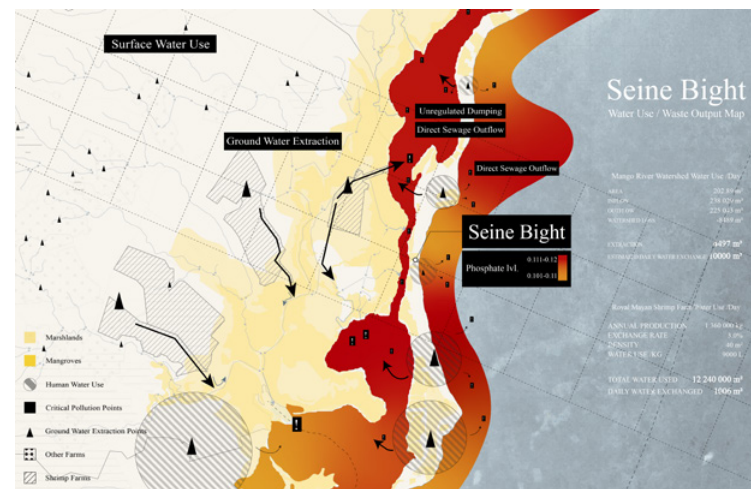
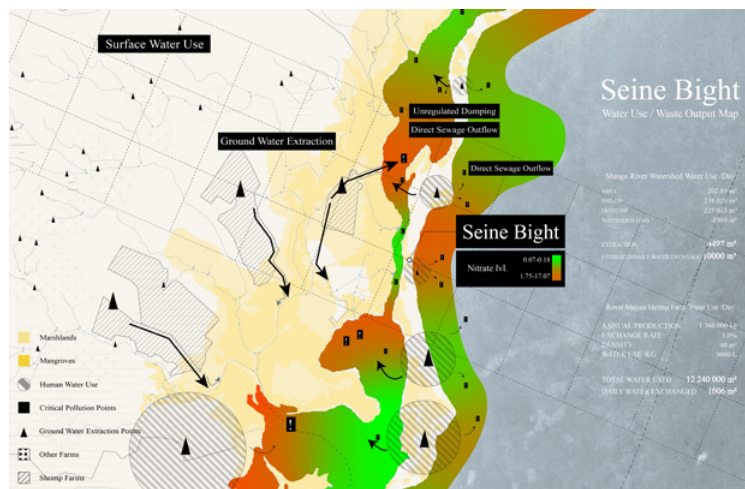


inequitable economy
-400% in GDP-DE growth ratio

impact of water

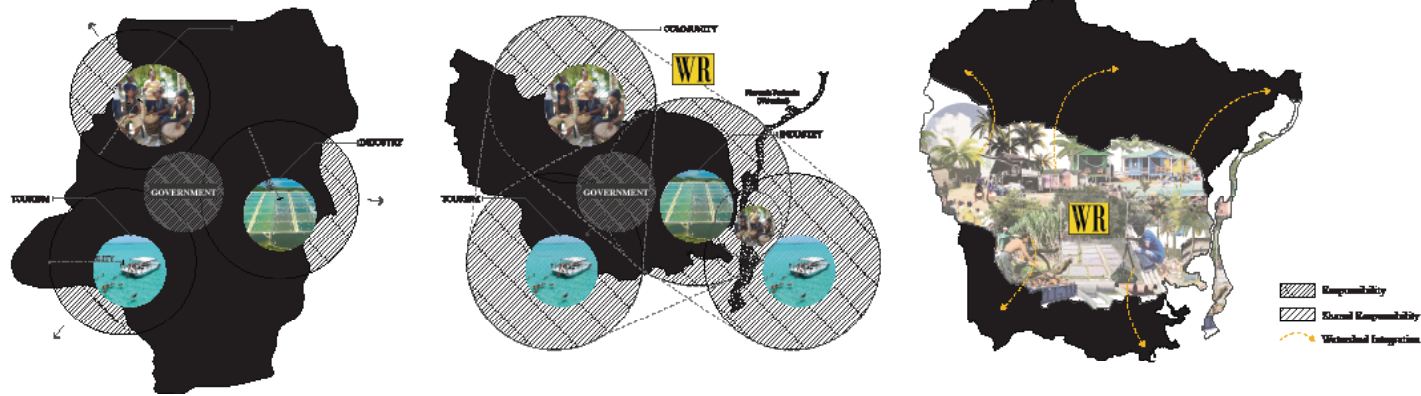


how do we support the system?



Our overall design strategies are to monitor and filter the current watershed and to mitigate for future threats of our site.

water rangers



Currently, each sector interacts with the government policies independently with little effort in developing congruently.

Water Ranger program developed alongside ICWZM provides a model for unifying the sectors with a coalition.

The Stann creek district boundary is slowly transforming into the watershed boundary as the root of solutions.

The Water Ranger program will be led by someone with ample knowledge, such as Mr. Pepe Garcia. We can foster a team made of local citizens, corporate representatives, volunteers, and local industry students to monitor pollution, develop plans for future watershed growth, and enforce existing water protection policies.



Jose (Pepe) Gaarcia
Water Ranger - Leader

"The major source of waste to the lagoon is human waste."

"Shrimp farm filtration system exist, but the head of the shrimp and the filters, where do they go?"



Kalene Eck
Water Ranger - Mitigation Officer
Resilience Officer

[Belize]
Belize Coastal Zone Management Authority & Institute (CZMAI)



John
Water Ranger - Volunteer Surveyor

[Seine Bight]
Belize University
Bachelor of Marine Biology



Josué Aké
Water Ranger - Quality Control

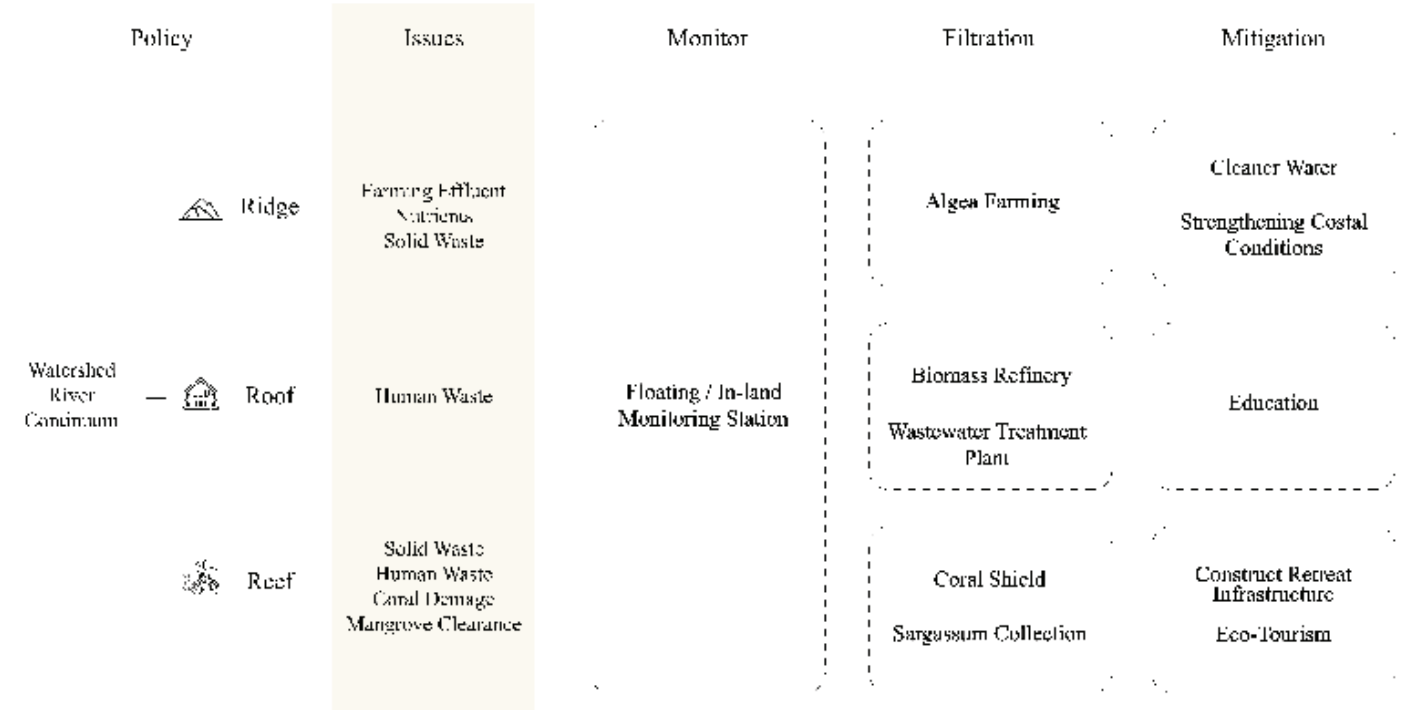
[Belize]
Science Department, Faculty of Science & Technology, University of Belize, Natural Resource Management Program



Theresa
Water Ranger - Compliance Officer

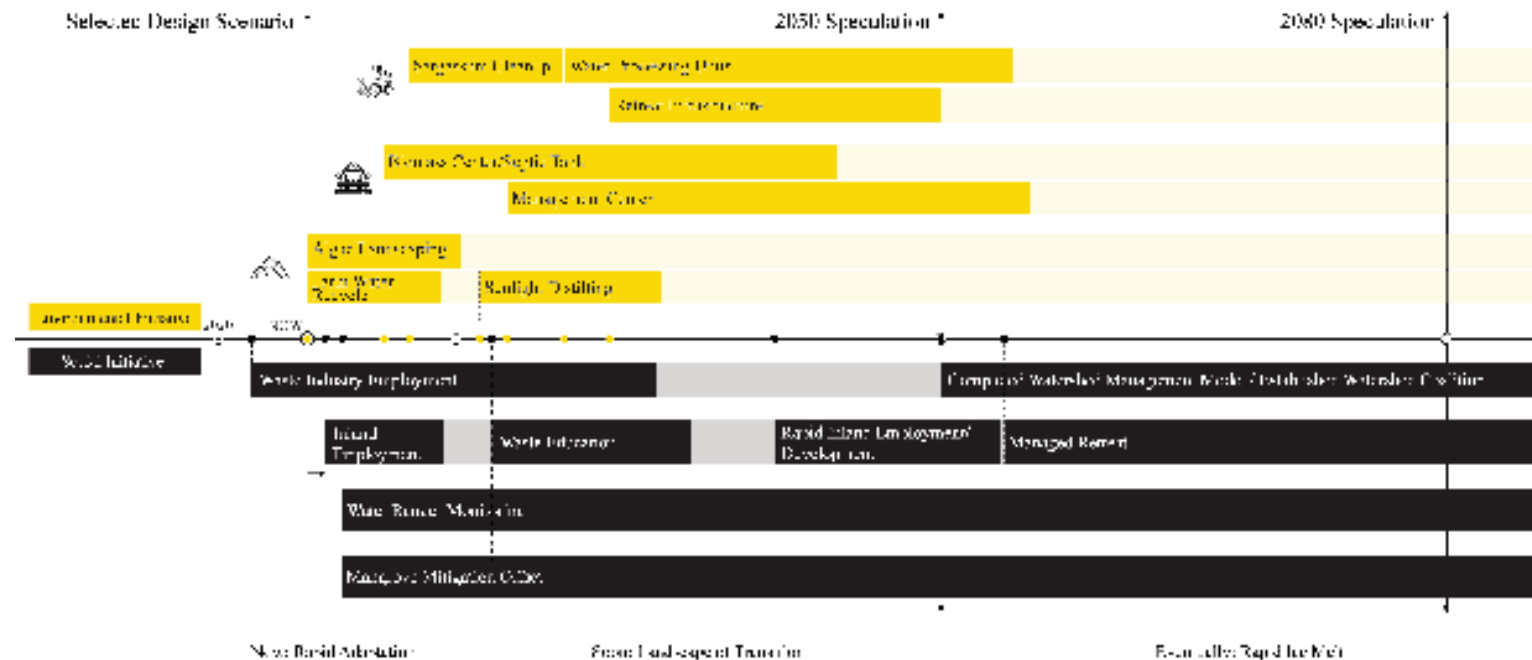
[Belmopan]
King Mayan Shrimp Farm Director

what are our actions?



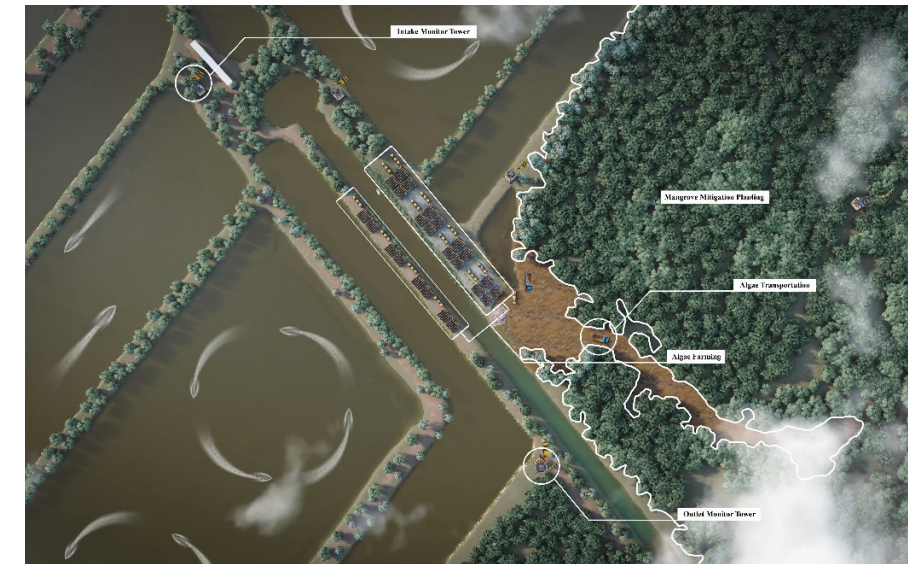
Our designed support structure splits into three parts, monitoring locates the source of the problem and enforces policy, filtration actively tries to solve the problem, and mitigation sets up infrastructure for future. The water rangers are integrated throughout the design applications, with specific personelles targeting each sectors.

how does it work long term?





design: ridge - roof - reef



01 Ridge - Shrimp Farm

An algae farm that filtrates nitrate and salinity issues created by fertilizer is introduced. Algae collected on-site will be transported to Seine Bight for bio-fuel.

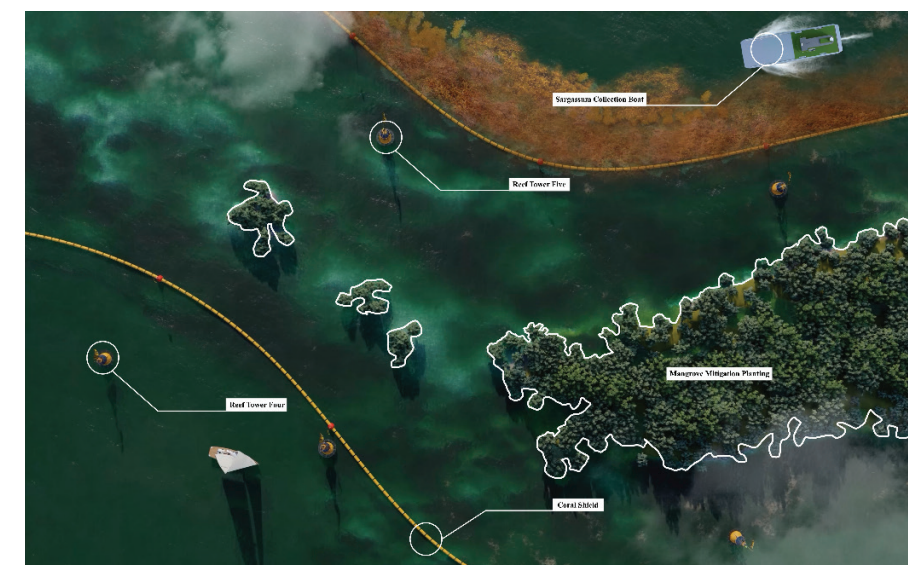
Monitoring towers will also be located at the inlet and outlet of the farm.



02 Roof - Seine Bight Community

The design intends to build biofuel facilities alongside continuous education for residents.

Locally, septic tanks are built connecting to biomass refinery. Wastewater treatment plant will integrate with the community and education center.



03 Reef - Coral Reef

The coral shield are installed to block sargassum.

Floating water monitoring stations indicate water contamination and alerts rangers.

01 Ridge - Shrimp Farm
Algae Farms & Monitoring Towers



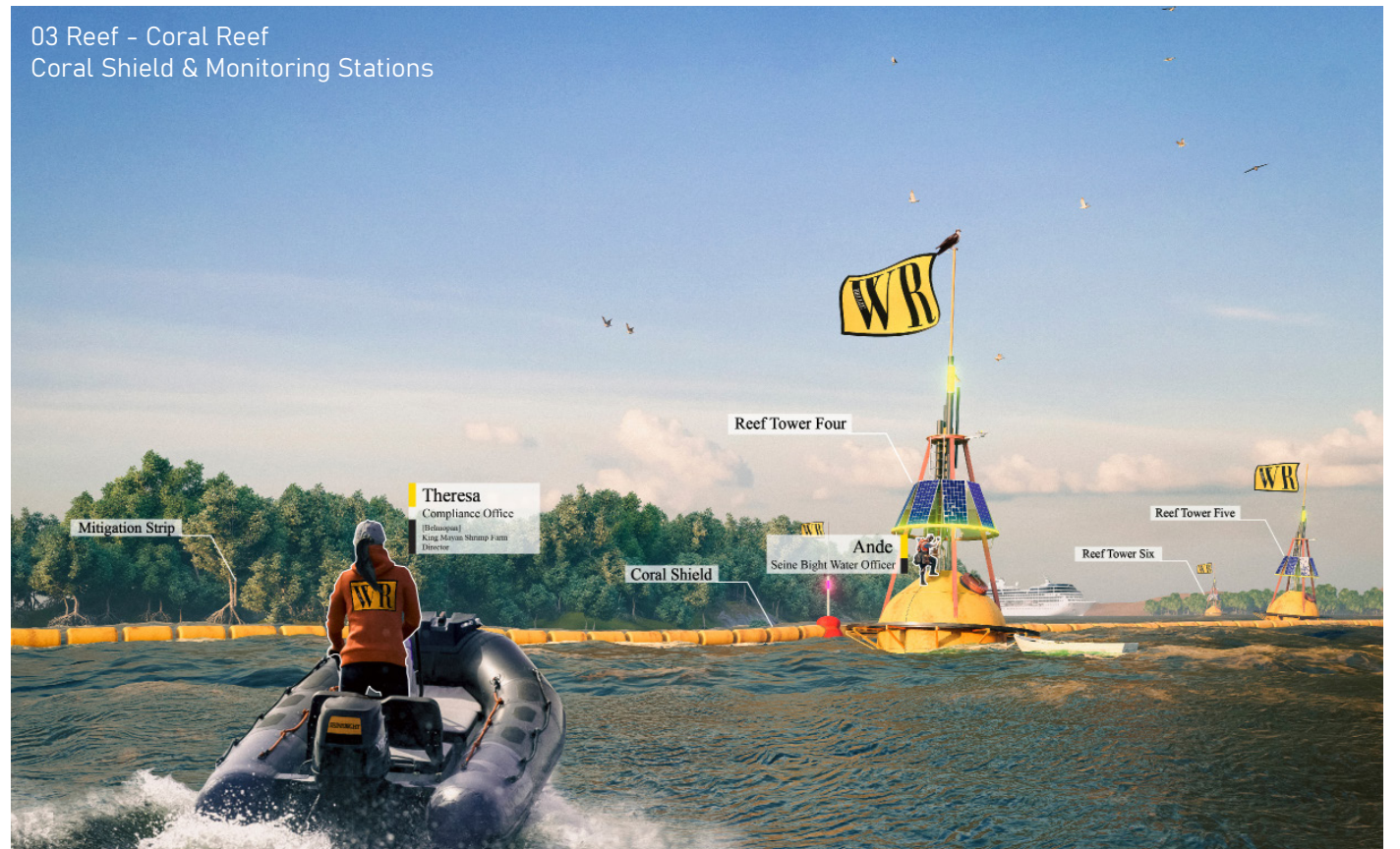
02 Roof - Seine Bight Community
Water Filtration & Community Center



02 Roof - Seine Bight Community
Biorefinery & Monitoring Center



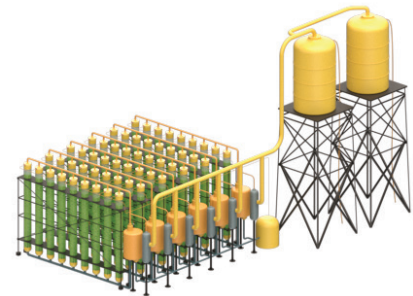
03 Reef - Coral Reef
Coral Shield & Monitoring Stations



what are the components?



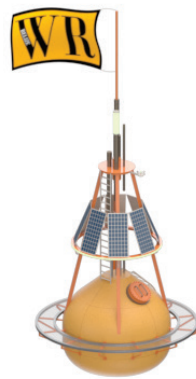
Monitoring Tower (Land)
collects water samples from the watersheds



Algae Farm
Vertical algae farms absorb salinity of the water



Tetrapod
Water Ranger - Leader



Monitoring Tower (Water)
Water Ranger - Leader



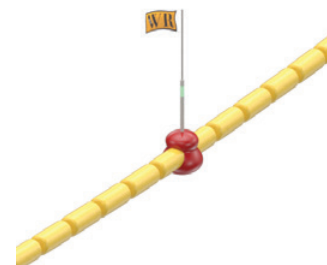
Biofuel, Education, and Monitoring Center
Water Ranger - Leader



Rectrapod
Water Ranger - Leader



Treatment Center and Community Center
Water Ranger - Leader



Coral Shield
Water Ranger - Leader

future of seine bight: 2030 / 2050 / 2080



Algae farming modules and monitoring towers are first implemented on our site. In 2050, as the community builds economic and social wealth, a long-term managed retreat can take place where housing plots are being prepared in conjunction with government plans. 2080, as the sea level rises and endangers the current seine bight village, the upland will grow together in residents, more incorporated tourism activities, and diversified job opportunities.



mango creek, 2050



mango creek, 2080