

P O R  
T F O  
L I O

YAOZEYU  
SELECTED WORKS GSAPP

M.S. Architecture & Urban Design



## Bring Back the Sabana: La Vaca Wetland: Network of Care and Water Visibility

2023 Spring Urban Design Studio

Location: Bogotá, Colombia

Team Work: Xu Cheng, Yaoze Yu,

Devanshi Gajjar, Rutwik Karra

Instructors: Kate Orff, Dilip da Cunha, Geeta Mehta

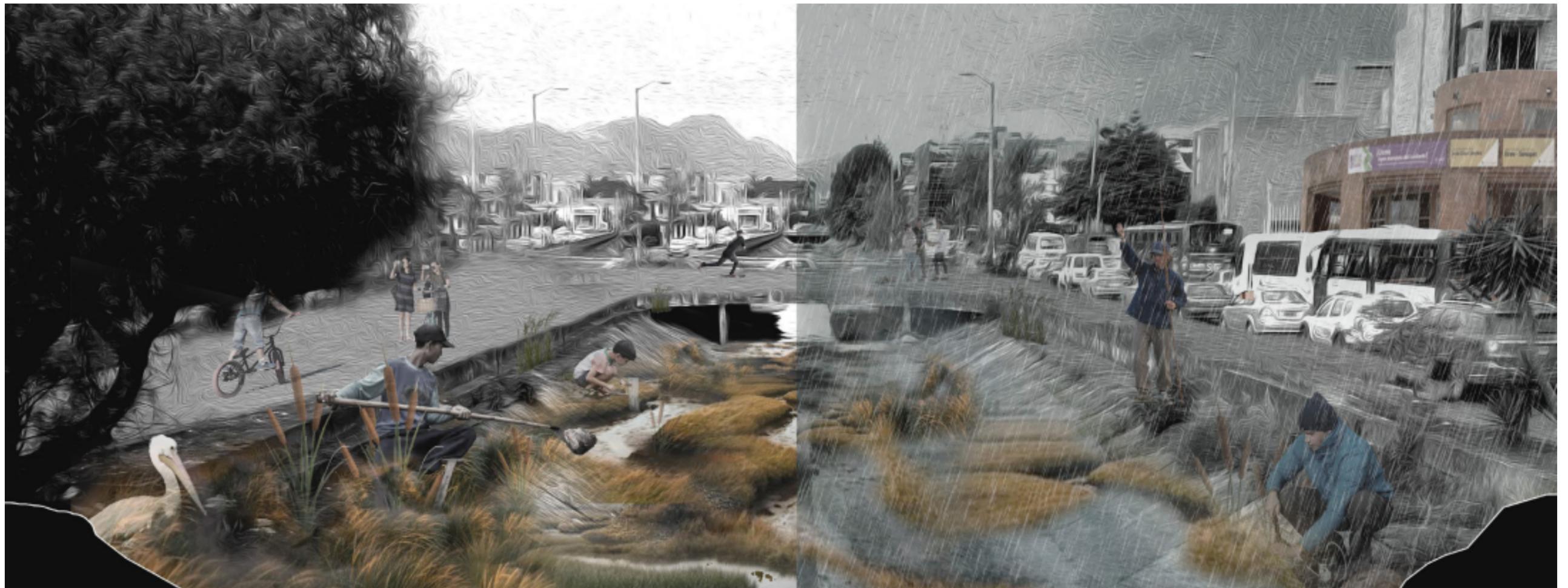
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An overflow of internally displaced people, illegal immigrants, both victims and perpetrators of armed conflict. An overflow of transit oriented development with the upcoming bogota metro in this already dense settlement. And most importantly, this is an impervious self-built settlement at the edge of overflowing water! Hardness seems to be everywhere. From streets to the community spaces, even the streams are concreted into a canal and the river is held behind a levee.

What is care, you all might wonder. On our trip to Bogota, we visited a Care-Block. Seated in an existing community building, Care block is the city's flagship social infrastructure project, that liberates care-givers, (which is the women in the household), from their care work, to provide them with free time. They are encouraged to learn new skills that can make them employable, building an interconnected social capital.



As we look into this historic map of the Savannah, we wonder, wasn't 'CARE' intrinsic to the lives and lifestyles of the indigenous Muisca? If we regard water in the shades of Blue and Green, Care was not only between the people, but it was also in the ways they lived with water. Our project celebrates care blocks and intends to extend care to water, and from a block to a Network of Care. To envision a city in stewardship of a Care Network in Water Visibility with a shift from Water Fear to Water Trust.

## Evolution of Care – 2070 Building a Water-Care Network



Anchored at the Kennedy Care block, the social capital is utilized to reclaim the ecological capital. Wetlands extend into the neighborhood, while canals and communities are de-hardened. Canals become ditches of biofiltering streams, and water is visible in a network of interconnected ditches, gardens, and pocket parks. The network seeds from 3 scales of existing care. Care for community, Care for Wetlands, and Care for Rio Bogota. Care for Community starts at the Care Block. Diego and Diana, who walked us through their neighborhood,

talked about how in a complex community, agriculture could be a meeting point of nature, culture and economic growth! Care for Wetlands, starts with the care work of Guardians of Wetlands. Dora talks about how indigenous people lived with the water and how women carry forward the legacy. Care for Rio Bogota begins with the aqueduct company's interest to revitalize the river capacity for flood mitigation.



Care for community-2070 Maintenance and Stewardship



Care for Wetlands - Habitat Creation and Holding Capacity



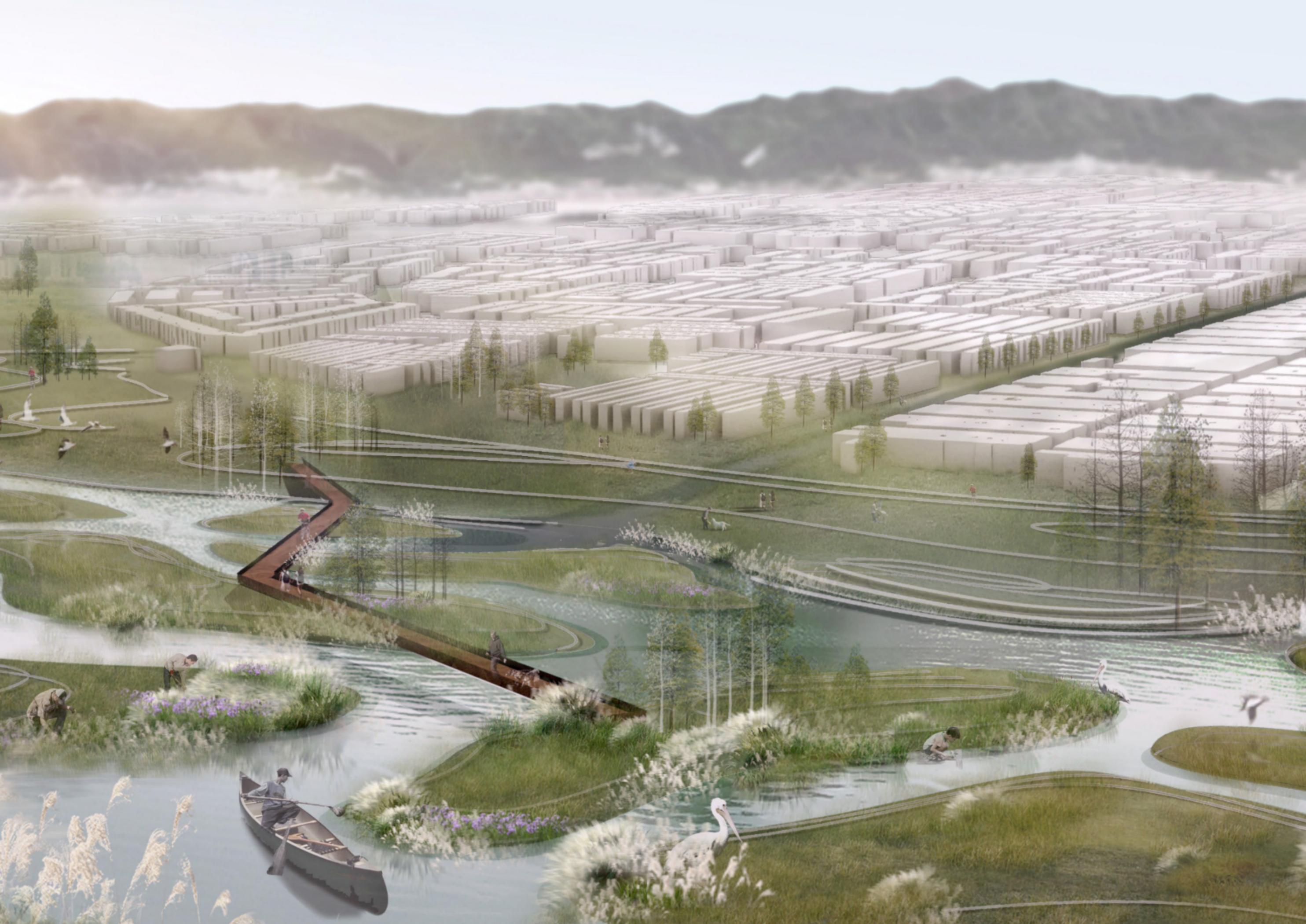
Co-existence - Future Lifestyle with Water



Development, transit and the influx of people can coexist with the water! A Green-Blue Bogota is imagined!

A typical avenue in this vision for Bogota is a modest network of various systems of transit, housing, and visible water. With walkways, cyclepaths, and a direct connection to water, a city is envisioned with water as its identity. With a Network of Care and social capital, ecology is reclaimed. An interdependent community thrives to live with water.

What's designed for Kennedy, can expand into the entire city! An Urban design shift of a regional identity from water fear, back to water trust!



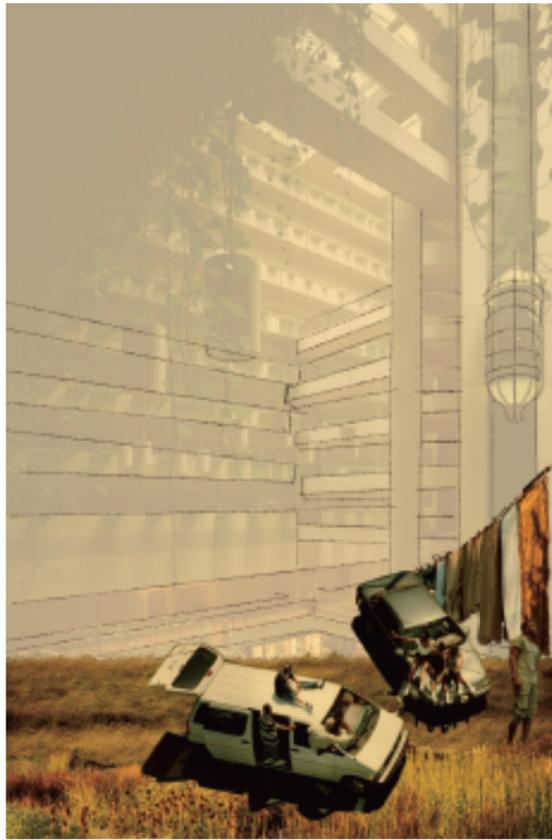


## Re-Wilding Downtown Peachtree

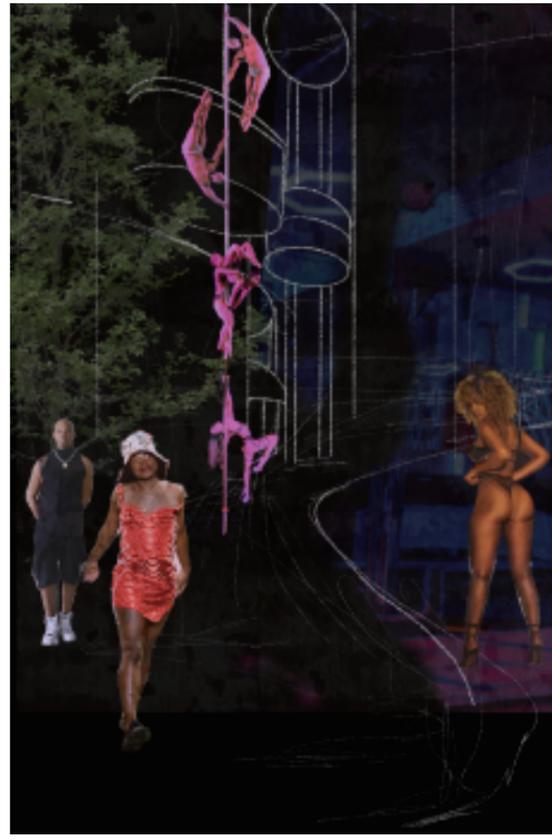
2022 Fall Urban Design Studio  
Location: Atlanta, United States  
Team Work: Heer Shah, Yaoze Yu,  
Tippi Huang, María Gabriela Flores

Instructors: Emanuel Admassu

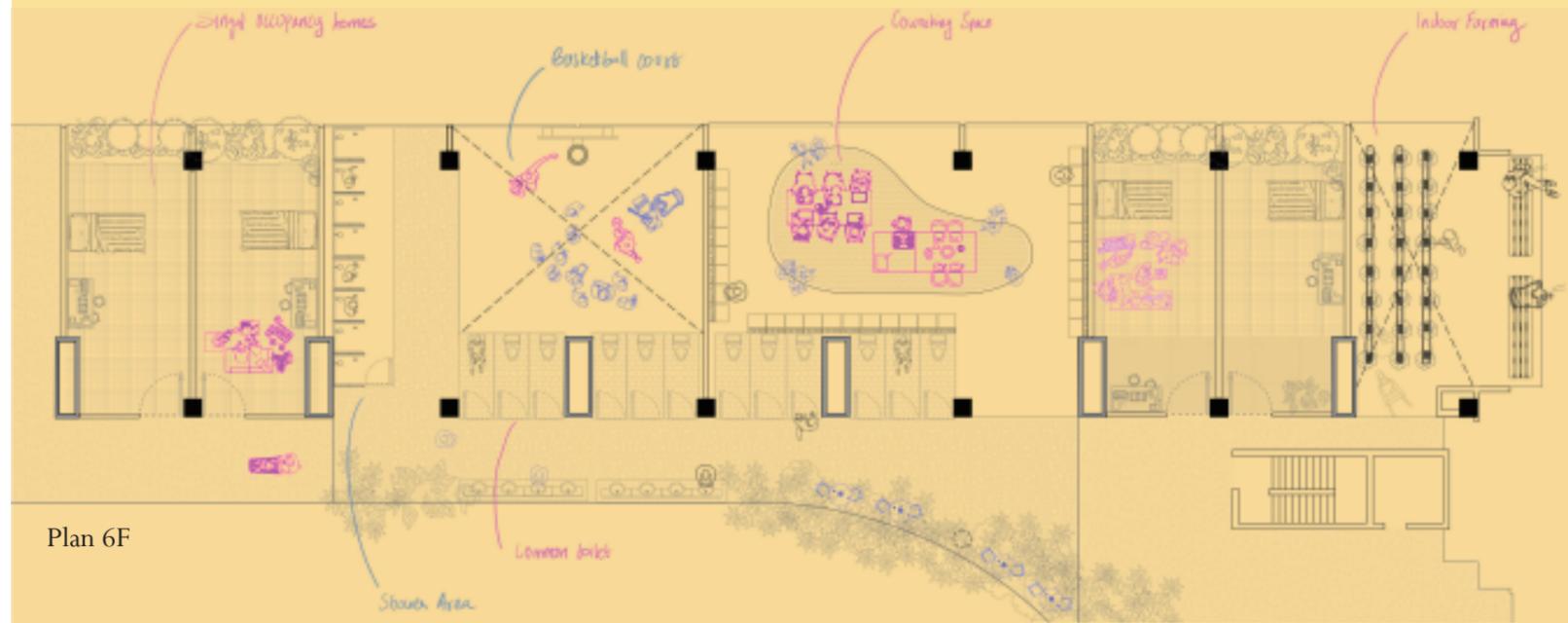
The Downtown Peachtree district sits at the heart of Downtown Atlanta. These large-scale division and dispossession/ of land alongside typologies of skyscrapers with internal atriums/ encapsulate the pervasive forms of property. The legacy of neoliberalism/ has left future generations with areas such as Downtown Peachtree/ which are emblematic of this regime of property, and manifest the relationship between architecture and politics, both involving architecture's role in the economy, as well as its role as a cultural object.



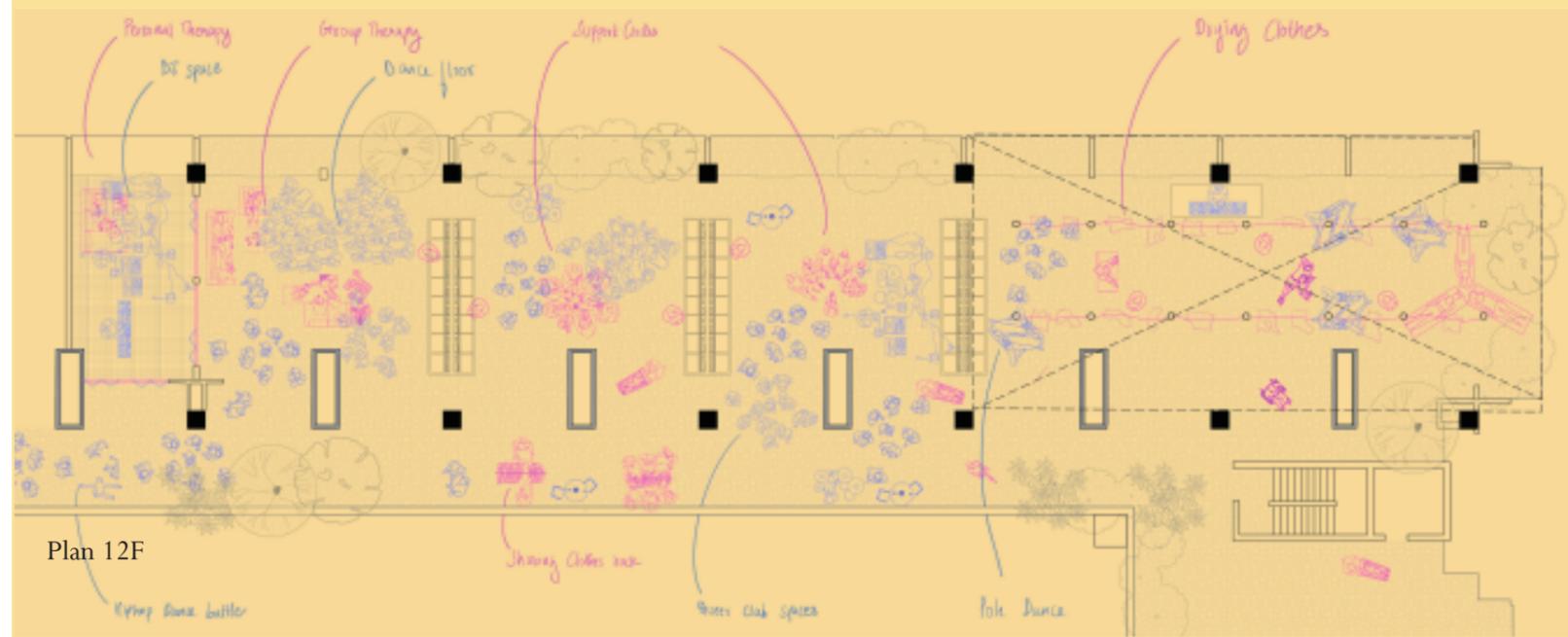
Vision of ecology in Portman's building



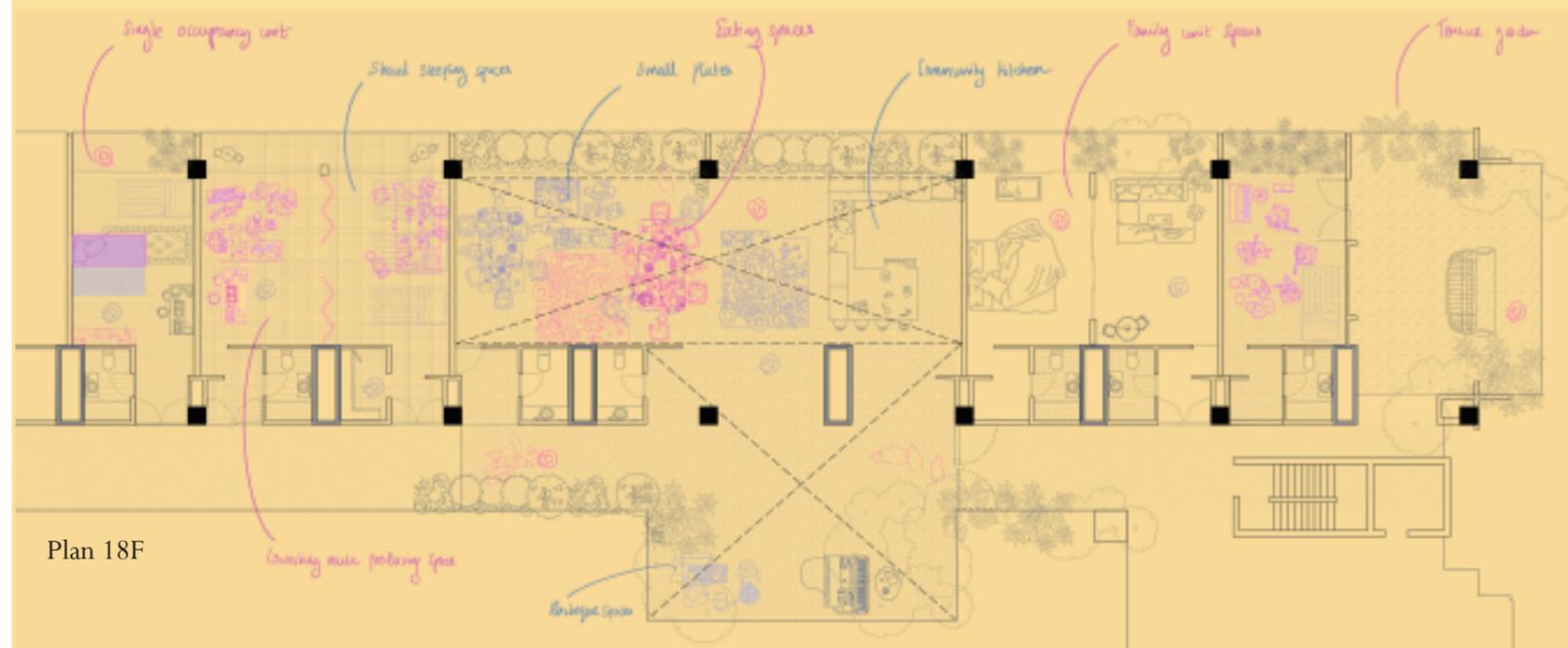
Scene at night in Portman's building



Plan 6F



Plan 12F



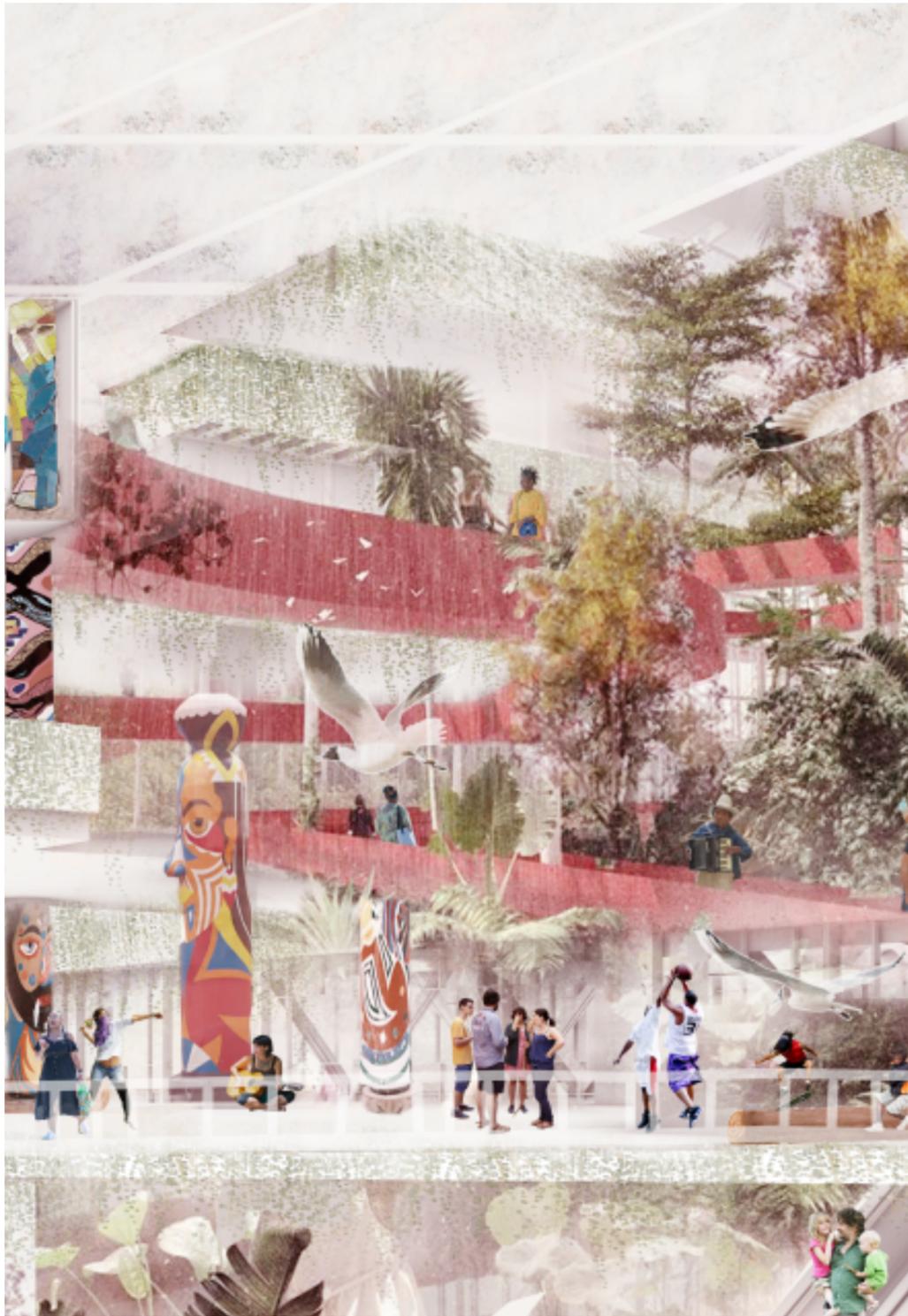
Plan 18F



Vision of collective care in Portman's



Diagram of Atlanta-based elements occupying Portman's building occupying Portman's building



Scenarios of atrium in Portman's building



To break this site's current enclosure, we have adopted the concept of foraging. We observe the natural existing conditions and like the foragers find possibility even in smallest of the things. We identify these elements from across Atlanta. These elements will be used in hotel buildings and exterior street spaces to form new social ecosystems.

We envision the after property of the hotel district through turning off the air conditioner and making it open to the city. For the atrium, we intervened with the ramp and vegetation. Ramp can clearly guide the series public space directions, vegetation can make it a natural place with high living-quality.



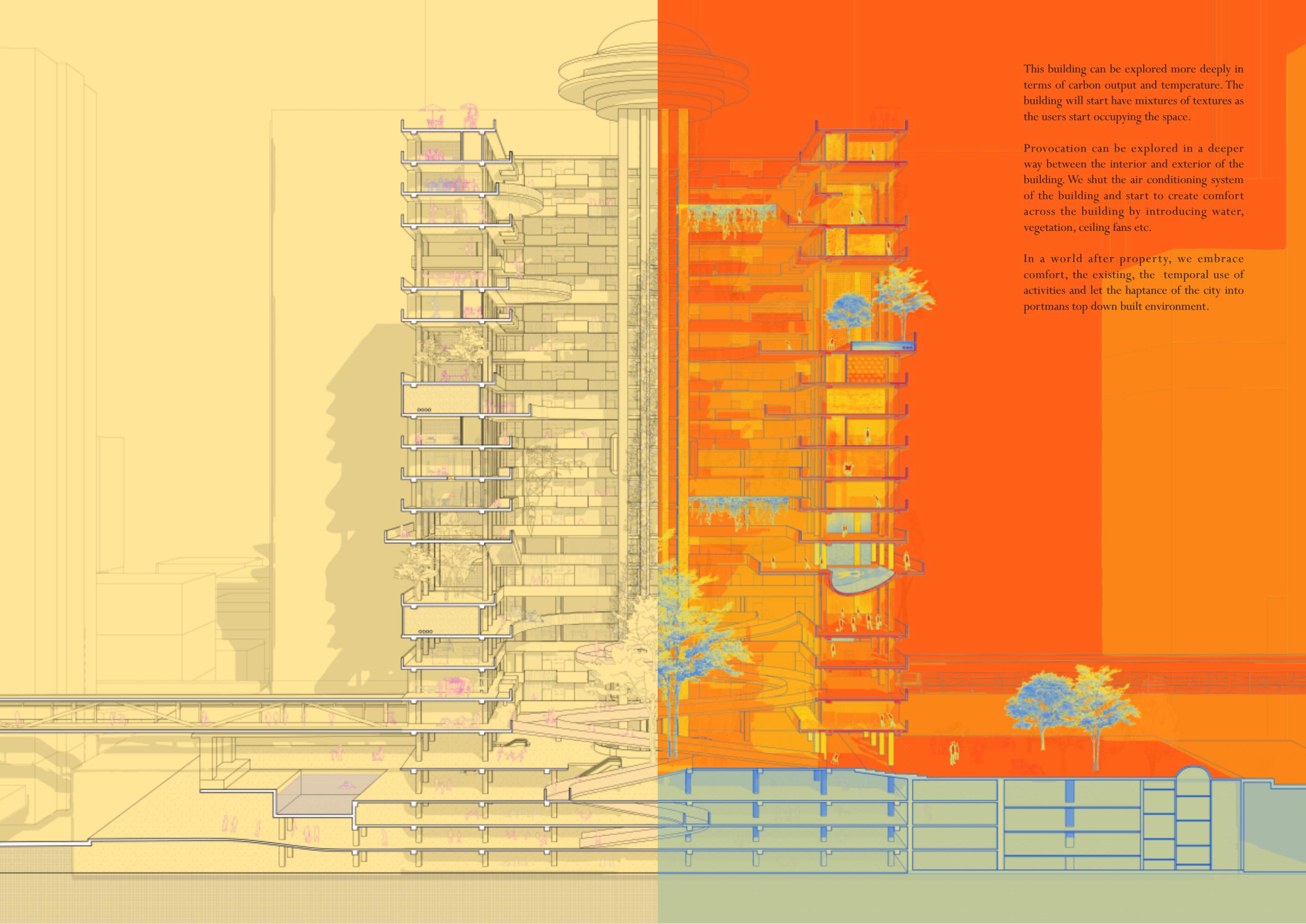
Conceptual model of simulated atrium intervention

In its current expression, interior urbanism leaves the city outside. Artificial ecologies are imagined, underserved people are marginalized, and everyday living experiences are suppressed. Individual comfort predominates over collective care. The thermally conditioned interior becomes symbolic for the intensification of sexuality, race and class difference.

We envision a future for the interior urbanism of atrium spaces that supplants the oppressive cartesian regime of

property. We reject the current, exclusive, and proprietary building owner and embrace long-term tenure of the land by welcoming the systemically overlooked and dispossessed. The unhoused, the housing-insecure, the sex worker, and the student come together in spaces of collective care to re-imagine spaces of transgression, ecology and the senses.

Critical of the current trope of sustainability, we embrace a multi-temporal understanding of spatial relations in order



This building can be explored more deeply in terms of carbon output and temperature. The building will start have mixtures of textures as the users start occupying the space.

Provocation can be explored in a deeper way between the interior and exterior of the building. We shut the air conditioning system of the building and start to create comfort across the building by introducing water, vegetation, ceiling fans etc.

In a world after property, we embrace comfort, the existing, the temporal use of activities and let the haptance of the city into portmans top down built environment.



## Manhattan Traffic Collision Map

2023 Spring Urban Data & Machine Learning  
Location: New York, United States  
Team Work: Chongyang Ren, Yaoze Yu,  
Junling Zhuang

Instructors: Mauricio E. Rada Orellana

Traffic collisions are a major concern in urban areas, and can lead to severe injuries or fatalities. Manhattan is known for its high-density road network and heavy traffic, making it important to understand the factors that contribute to traffic collisions in this area. In order to reduce the frequency and severity of collisions, it is necessary to identify the intersections that are most prone to accidents and determine the factors that contribute to their danger.

What factors contribute to the frequency and severity of traffic collisions at intersections in Manhattan, and how can this information be used to predict the risk of collisions at different locations?

A. According to each 50 meter road intersection, the superimposition amount of the traffic collision data contained inside is counted(2020-2022), and Y1 is obtained.

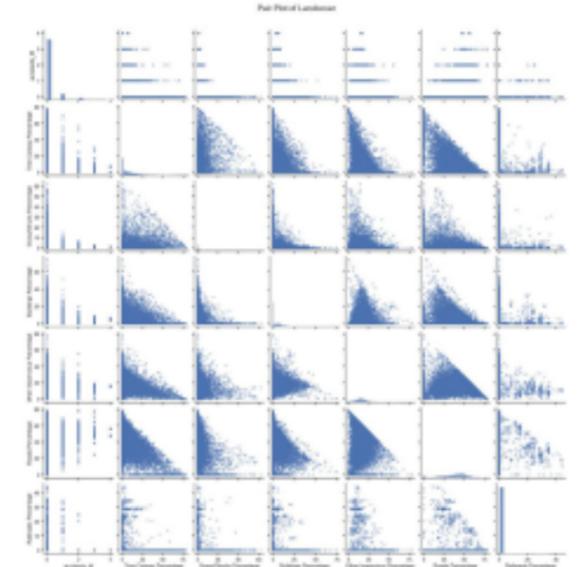
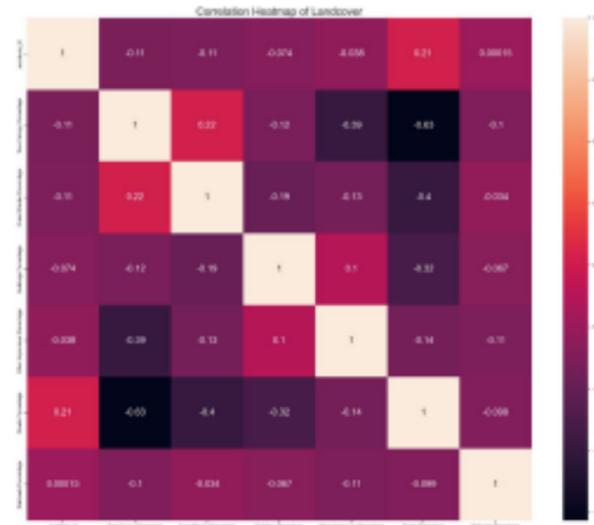
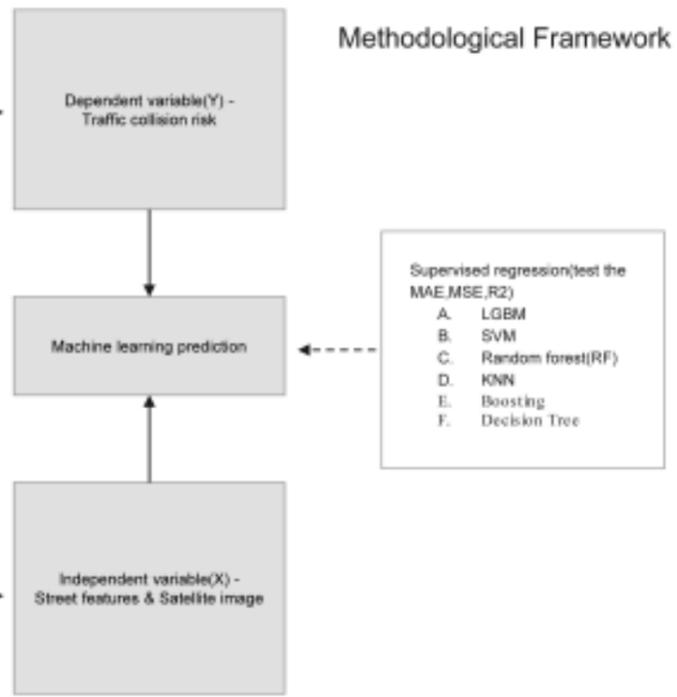
B. Count the number of traffic collision points on the street Within 50m of each road intersection, and the Y2 is obtained.

C. For the classification of **normal vehicle** and **micro mobility released**.

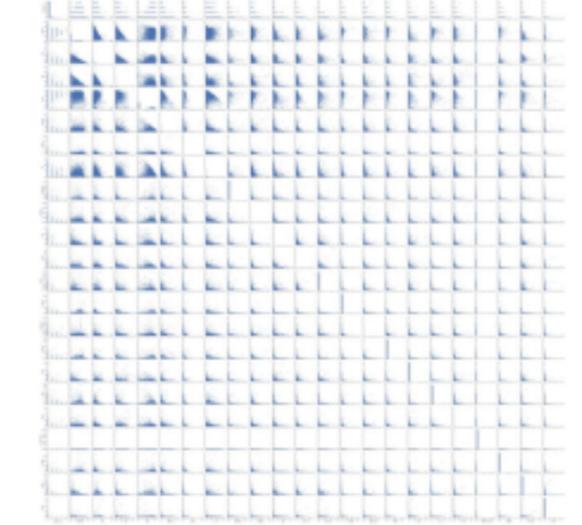
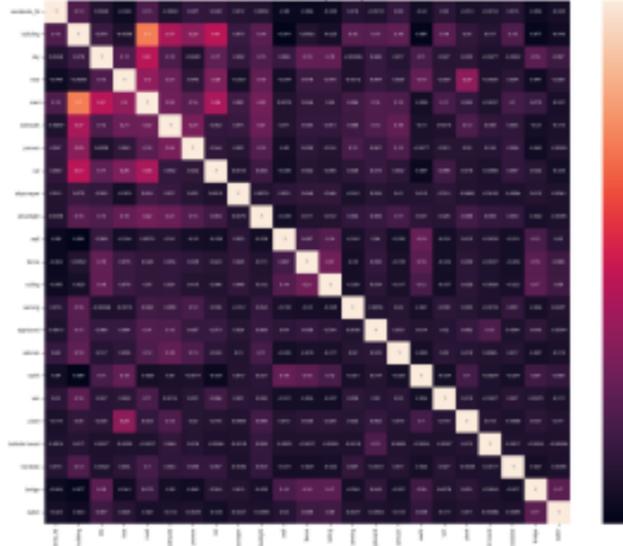
A. Google Street View from API, 50m interval.

B. Computer Vision Pre-training model to quantify street view features (Segmentation and Object recognition), and Find the mean of street features in each neighborhood

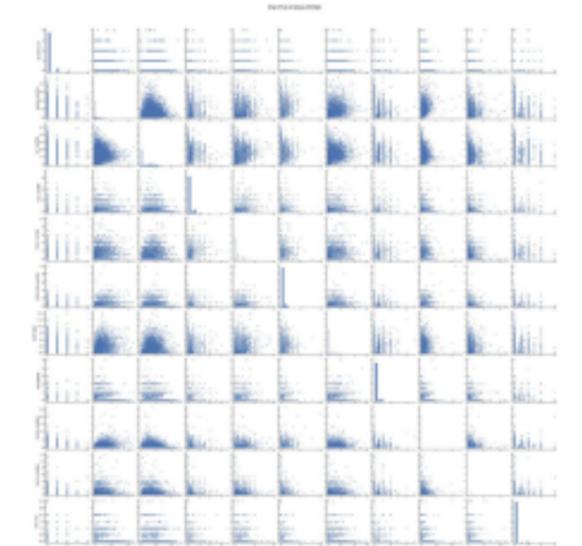
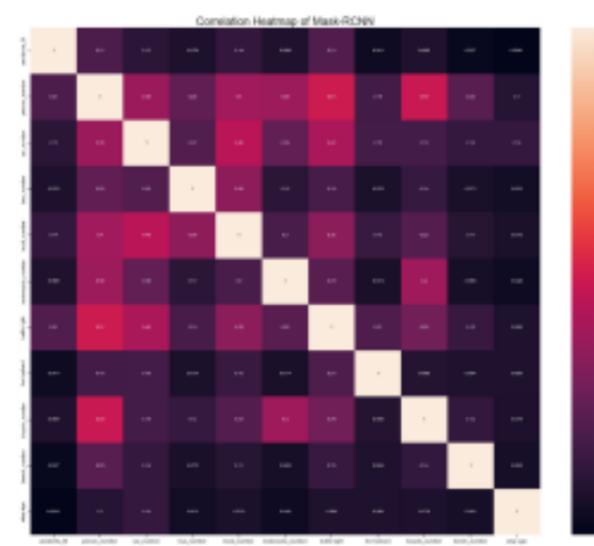
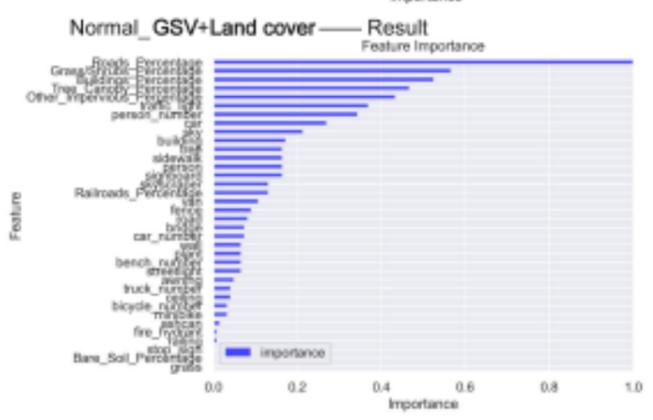
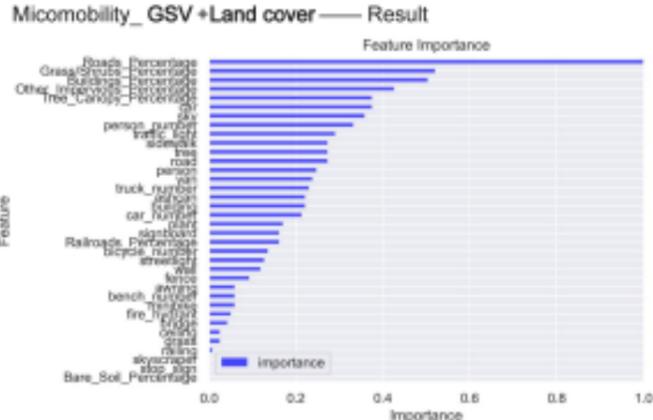
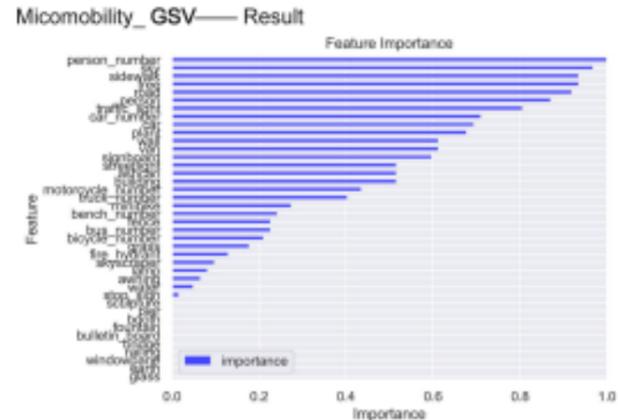
C. Land cover image download : 1.Download Land use data for the most recent year (2017)  
2. Calculated the proportion of different 50m traffic intersection buffer circles.



Exploratory Analysis – Land Cover



Exploratory Analysis - Psp Net

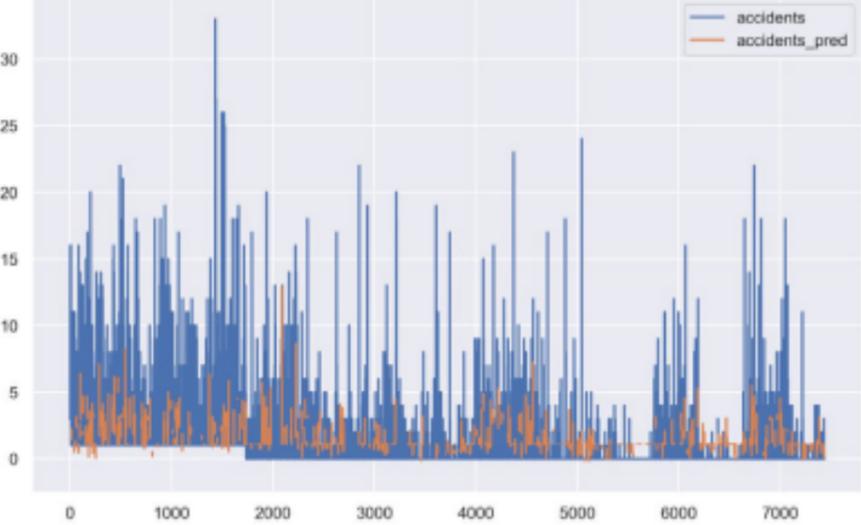


Exploratory Analysis - Mask RCNN

# Normal\_GSV+Land Cover — Results



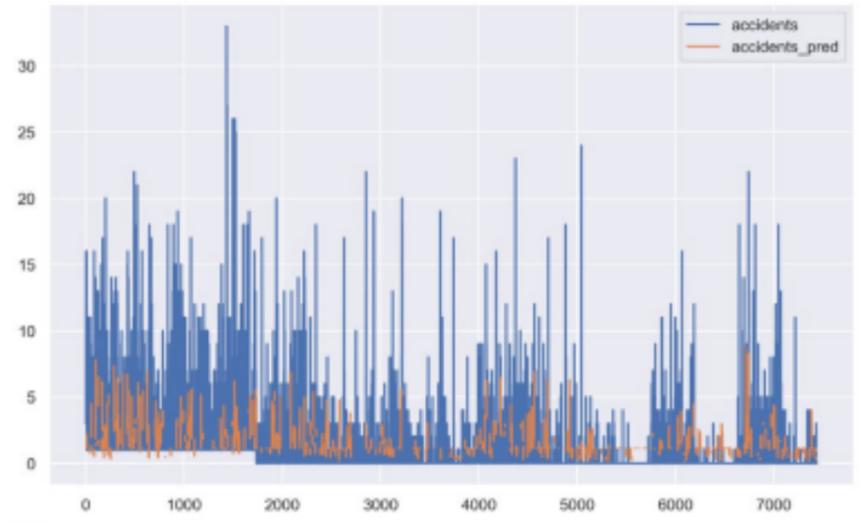
**LGBM Model**  
R2: 0.377  
MAE: 1.279  
RMSE 2.072



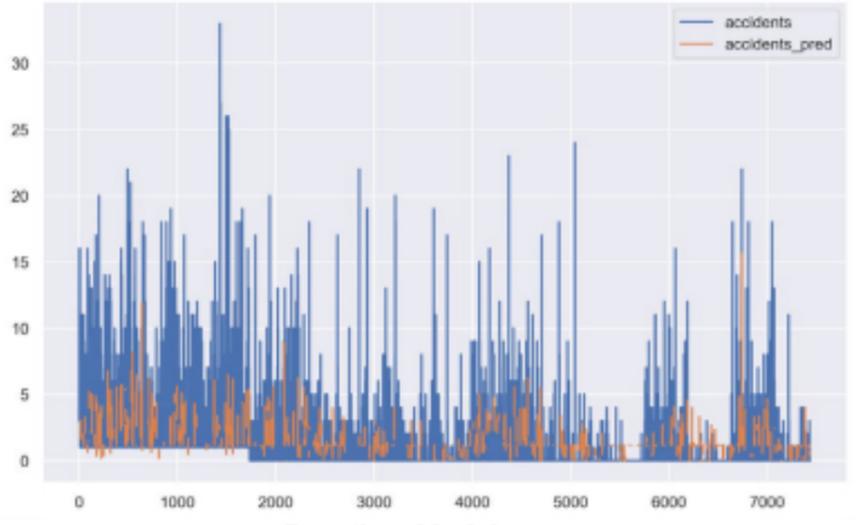
**Svm Model**  
R2: 0.184  
MAE: 1.207  
RMSE 2.37



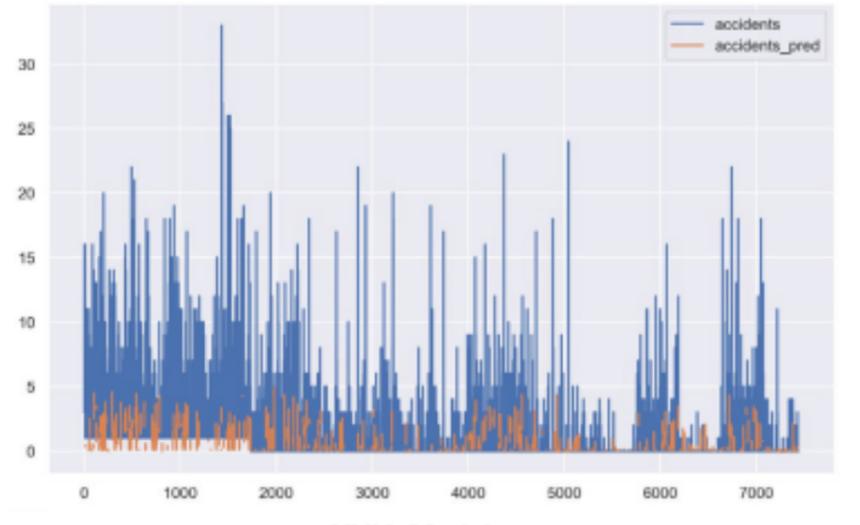
**Random Forest Model**  
R2: **0.39**  
MAE: 1.259  
RMSE 2.049



**Decision Tree Model**  
R2: -0.319  
MAE: 1.588  
RMSE 3.013



**Boosting Model**  
R2: 0.361  
MAE: 1.305  
RMSE 2.097



**KNN Model**  
R2: 0.227  
MAE: 1.4  
RMSE 2.307



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# SEX WORKER

How “Reality Tourism” shapes urban space in Thailand

Anchalina Anuwatnontaket, Yaoze Yu



Sex Industry in Thailand

## INTRODUCTION

Thailand is one of the most famous global tourist destinations in the world. In addition to attracting tourists interested in its natural and cultural treasures, Thailand’s thriving sex tourism industry attracts thousands of sex tourists worldwide.

Prostitution is illegal in Thailand and has been since 1960. However, you would be forgiven for thinking it was perfectly legal, given how it is widely visible, with police and government officials taking kickbacks from bars and brothels in exchange for letting them operate.

The term “sex worker” recognizes that sex work is work. Contrarily, prostitution is associated with crime and depravity. Many people who offer sexual services find the term “prostitute” derogatory and stigmatizing, adding to their exclusion from health, legal, and social services. Instead, they prefer the term “sex worker.”

By forcing sex work underground, criminalizing sex work jeopardizes the health and safety of sex workers. Criminalization can take many different forms, ranging from outright banning the administration of sex work to making the selling and procurement of sexual services illegal.

## THE REASONS BEHIND

The effect of the sex business in Thailand has several causes.

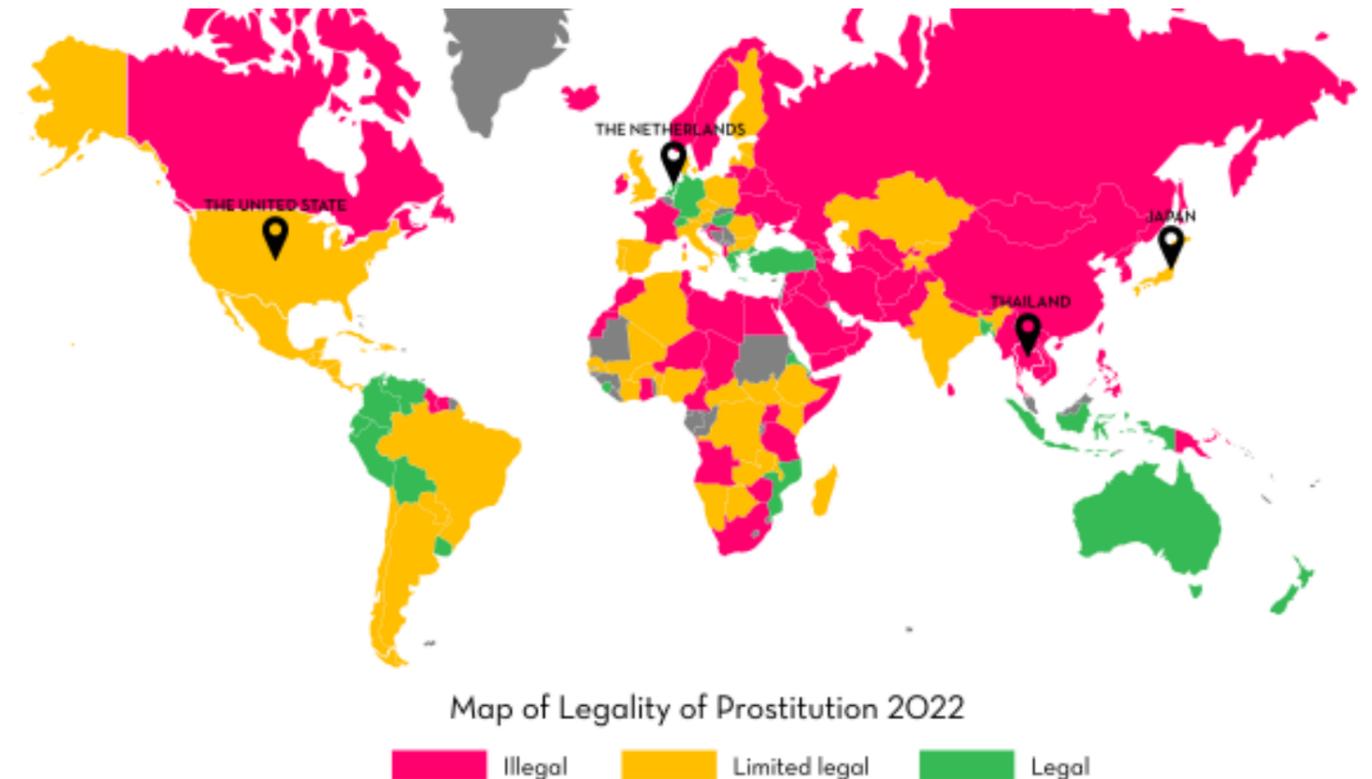
**Historical Factor :** Prostitution grew in popularity, especially when slavery was abolished in 1905, and former slave women living under the feudal system were left alone and without a means of subsistence. Then, during the Japanese occupation of World War II, sex massage parlors gained popularity. Rising rural poverty, especially in the 1960s and 1970s, and American military personnel’s use of Thailand as a rest and entertainment destination during the Vietnam War, prompted urban migration and the expansion of the sex industry in metropolitan areas. The government of Thailand invested millions of baht in marketing tourism throughout the 1980s, which led to a rise in sex tourism.

**Cultural Factor :** In Thailand, women are far lower than men, according to strict interpretations of Buddhist theology. These adherents hold fast to the notions of karma, rebirth, and nirvana. The hierarchy is the outcome of the idea that doing good deeds would put one in a better place when they are reincarnated. As a result, being born wealthy and powerful shows that a person has done good deeds in the past and is getting closer to nirvana, the ultimate spiritual goal. People born poor, ill, or feminine are seen to have done wrong in the past and should have a lesser rank.

getting closer to nirvana, the ultimate spiritual goal. People born poor, ill, or feminine are seen to have done wrong in the past and should have a lesser rank.

Generally speaking, the hierarchy is as follows: monastics, males, women, the destitute, the disabled, and animals. The history of prostitution in Thailand reflects this reduced value put on women. Prostitution gave individuals who could no longer have slave wives an outlet when polygamy was made illegal in the 1930s.

**Economic Factor :** Thais historically prioritize the status and well-being of their families. Prostitution is essentially viewed as a profession if it is a means of securing them. Adult sex workers in Thailand earn more than the average monthly pay of just under \$500, which makes them essential, if not the primary, money earners in their families. For the government, research on the unlawful economy in Thailand from 1993-1995 by the Political Economy Centre at Chulalongkorn University indicated that the yearly revenue from prostitutes was between 22.5-27 billion US dollars, or “approximately 10 to 14 percent of the GDP” (Lim, 1998). In addition to receiving illicit kickbacks and bribes from the sex business, politicians and other public officials also pay taxes and license fees to the government for various sex facilities (ILO, 1998).



COMPARATION BETWEEN THAILAND AND OHTER COUNTRIES ALL OVER THE WORLD

Bangkok (Thailand) is now working to eradicate prostitution. The government views sex workers as human trafficking victims needing financial and social support.

The Kabukich district in Tokyo, Japan, has changed from a residential neighborhood to a renowned red-light district with approximately 3,000 bars, nightclubs, love hotels, massage parlors, hostess clubs, and other establishments. Despite being referred to as a “red light district” here, there are no physical red lights with sex workers in the windows as in Amsterdam.

Although legal, street prostitution is not permitted in the Netherlands. Because of this, sex workers in Amsterdam have their own room and stand up behind a window. The 300 windows where women work are highlighted by red neon lights, giving the area its reputation as the “Red Light District.” In the Netherlands nowadays, sex workers pay taxes. By regulating and overseeing working practices and standards, the government ensures that all prostitutes can access health care and work in more favorable settings. other establishments. Despite being referred to as a “red light district” here, there are no physical red lights with sex workers in the windows as in Amsterdam.

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While in New York, most of those who work in sex are marginalized, and they are primarily Asians restricted to one specific massage parlor. They keep to themselves, are reserved, and avoid discussing their jobs. Massage parlors can be found all over New York City, in even the least likely places, except for Chinatown, Flushing, and 8th Avenue (Brooklyn), which have pockets of every traditional and imagined workplace. Some easily torn-off paper notes with contact information for sex workers were pasted to iron pillars beneath the Manhattan Bridge.

Times Square started to become a red-light area in the 1970s, but it slowly died out as the AIDS danger severely interfered with prostitution. After 1985, New York City’s Red Light District split into several locations dispersed throughout the city instead of forming distinct pockets. The development of the internet also made it more challenging to track sex transactions. From the early days of sex phones and cybersex to modern sex cameras and Softcore pornography in unexpected places such as Onlyfans. Users who sell nudes and pornography.

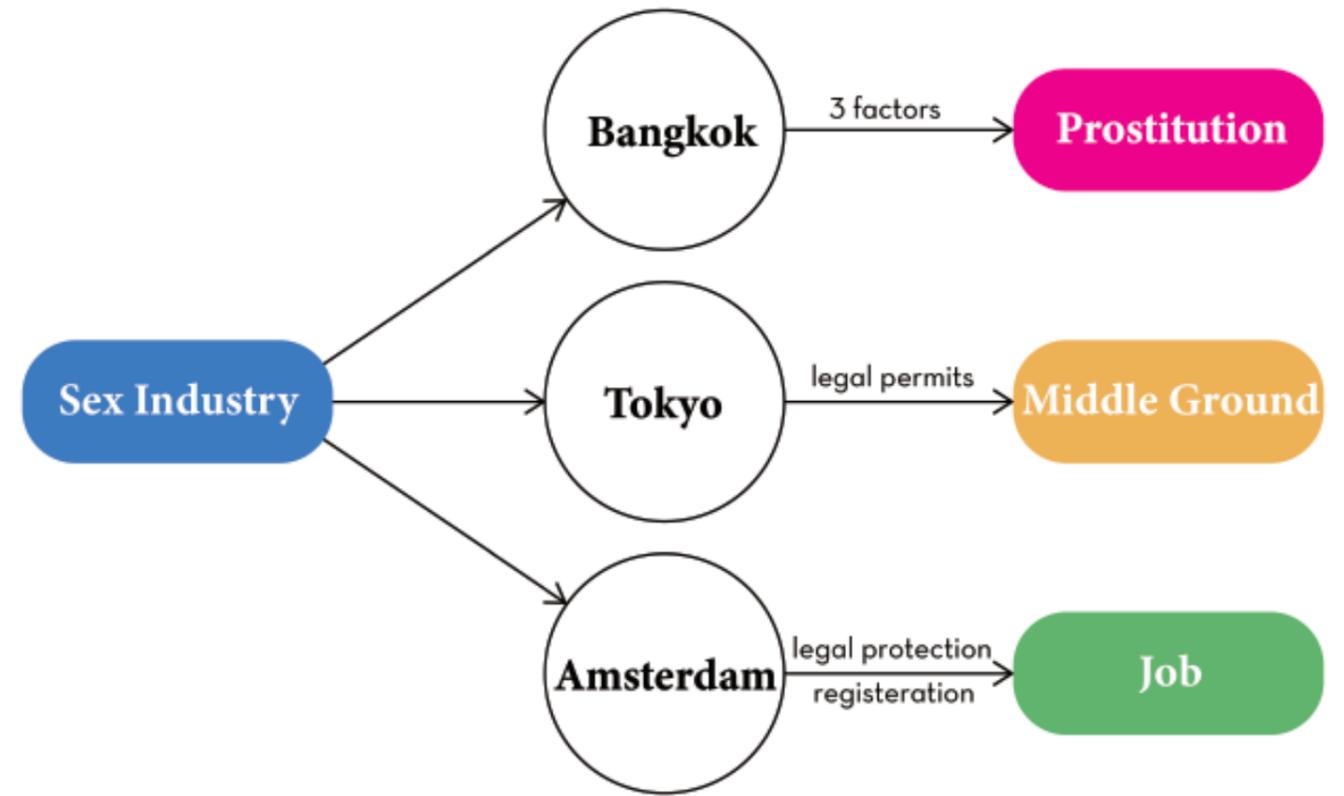


Diagram of how sex industry evolvd in different cities

**Before 1950**  
Prostitution was legal in Thailand. Girls from all over the country used to go to Bangkok and islands full of tourists to make money and support their families in poverty.

**1950s**  
Thailand had to face plenty of pressure from the United Nations. Many civilized countries made it illegal, so the organization wanted Thailand to join.

**1960s**  
Things become serious if there are suspicions of kidnapping, trafficking, or child prostitution. However, authorities seem to ignore it, walking by and seeing half-naked girls in the streets without caring.

**1968**  
**PATPONG** became an R&R (Rest and Recreation) destination for US military commanders fighting in the Vietnam War due to the presence of a few nightclubs in the region.

**1977**  
**SOI COWBOY** was named after T.G. Edwards, a retired military airman of African-American descent who opened the first bar. He always had his trademark cowboy hat that made him known to people as ‘Cowboy.’

**1980s**  
Things have not changed too much later on either. Thailand was just as necessary during the Vietnam War. Although it was already illegal by the end of the Vietnam War, no one cared - girls were still out, and foreigners and locals were still paying for sex. It was a normal thing that could no longer be reversed.

**2001**  
The government instituted a ‘social order’ campaign. As part of this, all bars, nightclubs, and restaurants had to close by 02:00 but did not include designated ‘entertainment zones’ such as Patpong, Soi Cowboy, and Nana Plaza.

**Present**  
These days, the red light district of Bangkok is famous for Ping Pong Shows (women doing tricks with their vaginas), Go Go Bars (some stripping nightclubs), blowjob bars, cabaret venues, and girls waiting to be approached for sex everywhere.

Timeline of sex industry development in Bangkok, Thailand

There are 3 major red light districts in Bangkok.

First, Silom and Sathorn together make up what is often referred to as Bangkok's Central Business District. Furthermore, while Sathorn is primarily a commercial and residential zone, Patpong, a popular and well-known nightlife and recreational hotspot, is located in Silom after hours.

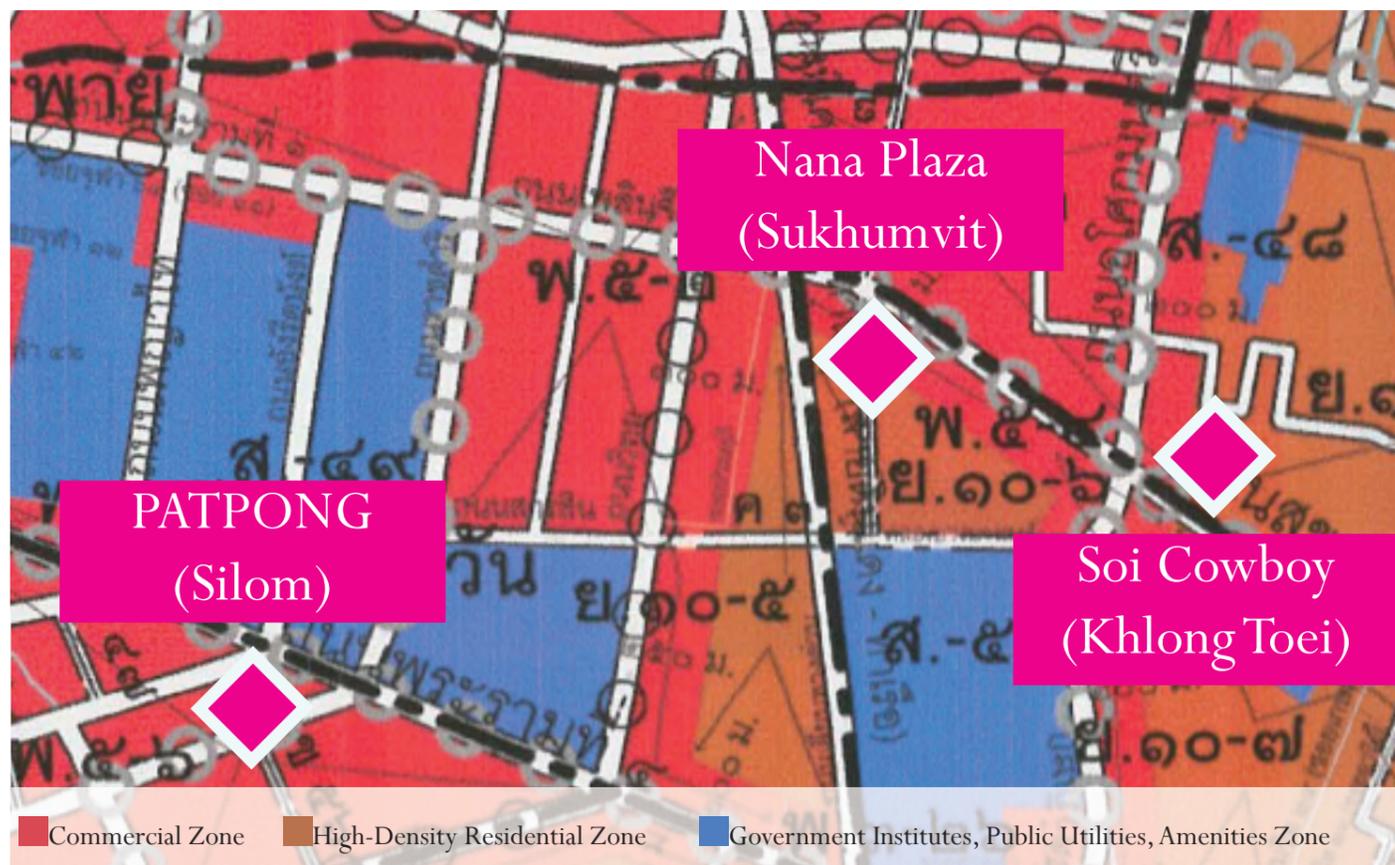
Second, Soi Cowboy is a small alley next to Sukhumvit Road, another significant financial area in Bangkok, and is a short stroll from the Asok Station of the BTS Skytrain and the Sukhumvit Station of the Bangkok MRT. All Go Go Bars have government-mandated signage in Thai and English at their entry. NO ONE UNDER 20 INSIDE, DRUGS-FREE, says the sign.

Last but not least, Nana Plaza, which was first constructed as a retail mall, is located in a three-story commercial structure in Bangkok's Khlong Toei neighborhood, around 300 meters (330 yards) from Nana Station on the BTS Skytrain. As you get closer to Nana Plaza, you will notice a line of street vendor carts cooking up various well-known northeastern

foods. The bargirls, most of whom are from the northeastern area of Thailand, eat these comfort foods.

When we look at the urban scale, we will find a different kind of exciting interrelationship between architecture, space, and people from the sex industries. And Soi Cowboy is the most interesting case of how sex workers and relatives occupied space at a different levels. These include, but are not limited to, interfaces between the street surface, the negotiation area, the bar's lounge, and the dance platform. These affected not only characteristic and role of the interface but also relations between private and public in the areas.

This 0.13-mile-long street is incredibly unique. It comes alive at night in Soi Cowboy, and things start moving at 7:00 PM. The happy hours are generally between 7:00 PM and 8:30 PM. And if you're there to party the night away, many of these discos stay open until 2:30 AM. As a result, building edges and the public realm encourage a diversity of uses throughout the day and night.



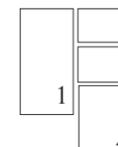
Bangkok Zoning

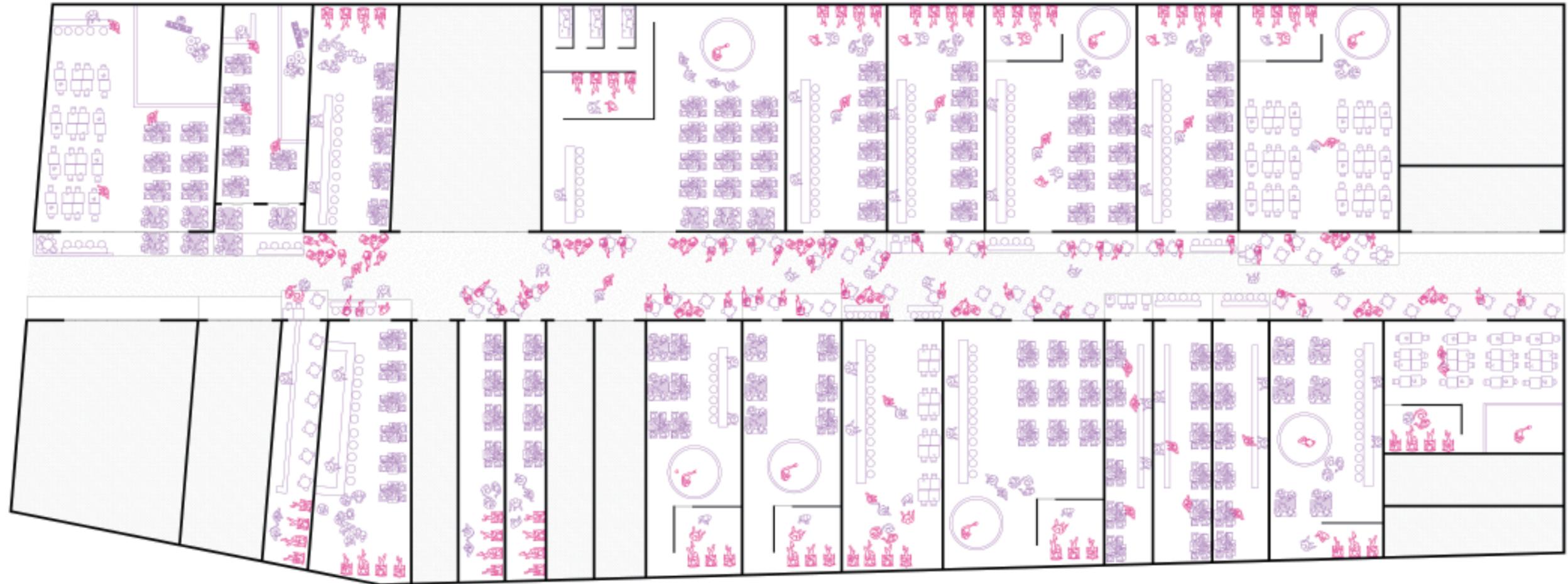


SOI COWBOY

This alley, 0.13 miles long, has 40 bars around it. The first bar in this region was founded in 1977 by an African-American soldier, T.G. Edwards, wearing a cowboy hat. Although the neon-infused excitement of today's bars might be scary, they generally have a decent reputation and few frauds. Live music performances welcome curious tourists as they reach the main street.

- 1 Soi Cowboy night-time
- 2 Soi Cowboy day-time
- 3 Soi Cowboy night-time
- 4 Soi Cowboy night club

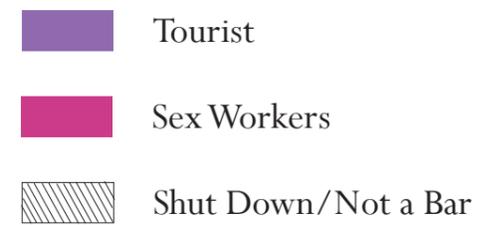


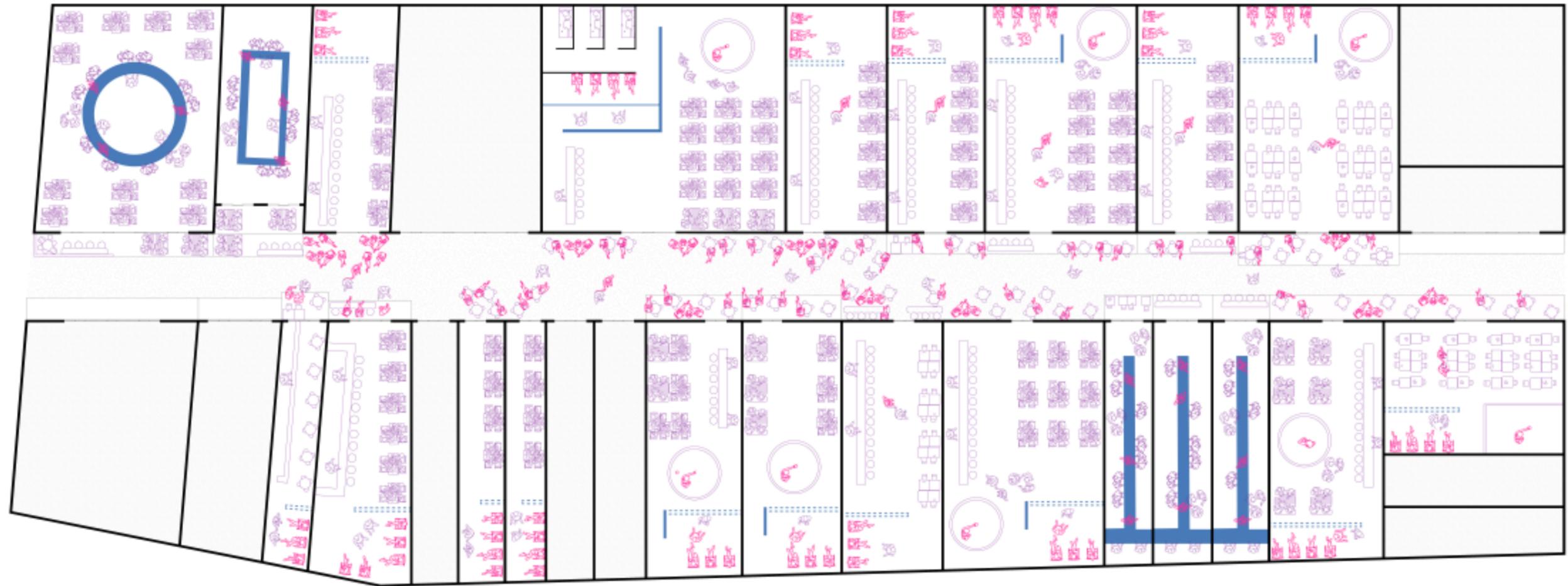


## BEFORE DESIGN

There are 3 types of bars and restaurants in Soi Cowboy :

1. Beer Bars - Sports and music pub featuring live music, professional-sized pool tables, and big screen TVs. Mainly serve hearty food and beers.
2. Go Go Bars - Alcoholic drinks available and women in bikinis on the stage. There is usually a UV-lit central stage surrounded by lines of multi-tiered seats.
3. Speciality Bars - Same as Go Go Bar but there is “naughty boys corner” at the very far end of the room.





## AFTER DESIGN

There are different design interventions for 3 types of bars here:

1. Beer Bars - Using the different levels of height to create distance between the beer vendor girl and the tourists, the girl can walk around the bar to serve the tourists and enter the inner circle of the bar when she feels unsafe.
2. Go Go Bars - Create a space that only covers the head for sex workers and tourists to communicate, both to ensure the privacy of communication and to detect inappropriate harassment of tourists in a timely manner
3. Speciality Bars - Create a girl's window and avoid physical contact until the sex workers and the tourists have made a deal.

