re-en-try

HYUEIN SONG

selected works
This booklet is to tell myself that I am ready to re-ent-er the world that I left a year ago. The world that has always been there but the world that I had missed before GSAPP. The world that re-claims, re-distributes, re-vives, the world that em-powers, en-tangles, en-gages, and the world that makes me try new possibilities.
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Definition of re-

1 : again : anew
   // reclaim

2 : back : backward
   // reenter

The projects in this chapter address environmental justice in the built environment through re-use, re-claim, re-vive, re-distribution and re-entrance. From the planet to the totem, the projects try to delve into the issue through diverse perspectives and scales.
The social consists of various actors including human and non-human such as energy, and materials. The circulation of different elements of the social is entailed by various social activities. However, ‘negative by-products’ happen when there are leakages from the circulation of social elements, impeding the goal of having closed circulation. Infrastructure for the negative by-product systems manages the leakages from the circulation, materially and legally. Why is the leakage negative to the social? How can we minimize the unwanted leakages and redesign the circulation?

The project tries to answer the questions focusing on environmental and social impact of current negative by-product system by taking a closer look into how municipal solid waste (MSW) is sealed from our senses and displaced territorially. By unfolding temporal and spatial trans-secularities and questioning how systems have been developed, this project aims to provide tools to improve environmental sustainability and social equity.
The insensitivity of MSW by infrastructure weakens the awareness of the impacts MSW has to the environment, resulting human actors to dispose more. When disposed, MSW is covered and sealed with various equipment and trucked away from our senses through the infrastructure. The art of sealing is distancing human actors from the environmental effects MSW produces.

The displacement of MSW throughout different territorial scales, reproduces the power dynamics of the social. From the domestic scale to the planetary scale, MSW has always been marginalized from the center. Regardless of the original points of disposal, MSW is moved towards the poorer and marginal, being ended up far away from the origin.

Every MSW starts its journey from the smallest domestic scale. It is collected then in the scale of building, community, and finally transferred through collection trucks. The detail of collection methods differs from buildings to buildings, communities to communities.

Then, those collection trucks first gather in the ‘transfer stations’ in city scale. Currently, NYC is using the luxurious transfer stations called Marine Transfer Station to export all of its MSW to other cities and states through barges and road trains.

When viewed in State scale, this displacement gets clearer. In downstate NY, there are only incinerators, which have smaller effects towards the environment than landfills. Most of the landfills with higher impacts are located either in upstate NY or in other states. When viewed on an interstate scale, NYS is definitely a huge exporter of MSW.

The largest amount of the MSW produced in NYS is exported to Pennsylvania, a neighborhood state with lower income status than NYS. Pennsylvania has a lot more ongoing landfills than NYS. When viewed on an interstate scale, PA is an importer.
This pattern of marginalization towards less centered, lower income area of MSW is repeated in the national scale. This map shows how landfills are located near populated areas, but when looked closely, the landfills are always marginalized from the higher income areas and centers of cities, or if it is located at the center, it’s always on the areas with lower incomes.

This tendency is again, repeated in the larger scale – planetary. The available data was of plastic, which is also a part of MSW. If you see a pattern of exporting from the states to other countries, most of the importers are of the global south, with lower incomes.
If you look closely into those elements, there are always certain aspects that help sealing and hiding MSW such as trash bags and trash bins. The fleets like collection trucks, barges and trains used for the process of transfer are optimized to displace MSW, with perfect status of concealment.

The fleets are firstly gathered in the transfer station, where loaders and compactors are used to put MSW in containers. The degree of effectiveness of transfer stations varies according to the economic input of the location. It can be as luxurious as one of NYC’s, or as basic as possible.

Landfill is an infrastructural element of negative by-product systems that are mostly well known, but the most misunderstood. Unlike the common belief of people, MSW once arrived in landfill never goes back to earth. The landfill is thoroughly separated and sealed from the natural earth, with so many layers to seal the MSW. Once the landfill is located, the part of the earth becomes obsolete.

But, not all of the components of landfill have to end up there. Almost 45% of components are available for recycling with the current infrastructure such as glass, metal, plastics and paper. And all we need to do is separate the recyclables from MSW that goes to landfills.
EAST 91ST STREET MARINE TRANSFER STATION

Marine Transfer Station is a specific transfer station type for NYC. Upper east side has a huge income. Also, it has the highest ratio of white population, meaning this location has social power.

The east 91st marine transfer station has the most luxurious facilities and technologies to defer negative effects of MSW to be leaked. This luxurious facility costs 177 dollars to export one ton of MSW. This cost is almost twice of the regular truck contracts which is $91 per ton.

PENNSYLVANIA FALLS TOWNSHIP LANDFILLS

78% of revenue in Falls township, Pennsylvania, is from the landfill industry. Since Florence is located in NJ, it was not able to benefit from the landfill industry, while having all the negative effects such as odor and pollutant from the landfill because of the winds blowing from the west to east. NYC Department of Sanitation contracted WM with 165 million dollars per year for 20 years, while Falls township was only benefitting 16.3 million dollars per year. By importing, Falls township has been earning from 4.95 dollars to 6.5 dollars per ton.
With a 56% reduction in prison population since 2000, 26 prisons in New York State have closed and more are set to be closed. Layering these closures with policies, economic and community impact, pushback, political positions, environmental concerns, as well as the decentralization of the criminal justice system, this research seeks to envision post-prison futures in the rural towns of upstate New York.

It also explores the flows and transfers through the prison economy that interconnect these towns and New York City. A range of visions focus on prisons, towns or the system of mass incarceration, and consider state infrastructures- carceral, water, food, power, waste- as urban exostructures.
Prisons in New York State has been affected by the policies throughout the time. From the governor Rockefeller’s Drug Laws to governor Cuomo’s mass prison construction, the prison population had been increasing sharply.

However, NYC’s broken window policy in 1994, the prison population has been decreasing. Following the decrease, governors Cuomo and Hochul closed 26 prisons in New York State. Prisons in New York State are expected to be closed more.
The proximity of landfills and prisons is not unique here in Dannemora. There are 70 closed and open prisons in 33 counties of NYS, and there are 27 landfills in 23 counties of NYS. And, 13 counties both have prisons and landfills, which is to say, there is a high correlation between the locations of the two.
Prisons and Landfills are often located nearby each other as bad neighbors to the same towns. The research involved linking prison towns to their other bad neighbors, Landfills. In a nearby municipality, Schuyler Falls, there is a Clinton County landfill that opened in 1977, which has been also offering economic advantages to the county. The two bad neighbors are only 6 miles apart.

“The Slow Track” takes the closure of prisons as an opportunity to end another extractive industry - minimize the growth of the landfills, stop the need for landfills in the future, and provide better jobs and a sustainable industry in the town.
The project is located in the town of Dannemora, which has two prisons, Clinton correctional facility, and Clinton annex at Clinton correctional. Dannemora has relied heavily on its prisons as its main economy. Its incarcerated population has made up to 76% of the total population of Dannemora. The Clinton annex closed in 2021, and the town claims to be impacted by its loss of jobs.
Prisons and Landfills are both exostructures of New York City as well as other large cities in New York State. They create urban-rural dependencies, that displace correctional facilities and waste facilities away from their origins and create extractive economies out of them. Incarcerated populations and urban waste are exported across different scales of administrative boundaries, and provide allegedly financial benefits to rural towns, alongside other negative impacts. And that is an extractive economic system.
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The Clinton County landfill is located in Schuyler Falls. It accepts municipal solid waste and construction and demolition waste from inside and outside Clinton County including Vermont, Massachusetts, and even Quebec. It has had different phases, starting from 1977 with an unlined landfill. Now, after several renewals of its contract, it will be operating until 2041. The landfills usually start around 620 feet which is 10 feet above the rock, and are permitted to be built up to 782.5 feet, which is approximately 160 feet above the ground leve.
The size of the landfill is enormous, about 2400 feet wide and 4400 feet long. Now accepting 125,000 tons to 175,000 tons per year, it accumulates different kinds of materials. Among municipal solid waste, paper takes 31.1%, organics 19.3%, plastics 13.8% followed by others.

However, the diversion rate is extremely low. Paper gets diverted 14%, glass 25%, plastic 5%, metal 2%, and others are rarely diverted and recycled. The diversion rate gets even lower with construction and demolition waste.

These materials are separated from the surrounding soil by layers of liners from low permeable layer, plastic liner, gravel, fabric filter, another gravel, and protective soil cover. Once put underground, the wastes are not going back to the soil, they are separated from the earth, and there forever unless we dig them out again.
The project intercepts waste from the current construction and demolition waste management system. The project intervenes at two points of the C&D waste circle with deconstruction and recycling. At one point, it collects C&D waste that is originally destined to be landfilled; and turns that into recycled building materials such as recycled aluminum, recycled asphalt, and recycled concrete aggregates.

At another point, it educates the local population with skills to enact and promote deconstruction, not demolition, so building parts can be collected, salvaged, and reclaimed from the landfill site. Salvaged windows, doors, ceramics, and other parts can be collected and reused in future buildings.
The project aims to minimize the speed of landfilling. Under the current system, there is no plausible way to stop bringing the waste to landfills. Landfills are filled with incoming waste, from other locations, and when they reach their capacity and permitted timespans, they are closed. New landfills will arrive and this vicious cycle of trash and landfill will continue in rural towns.

My project imagines an alternate system: an infrastructure that will minimize the growth of landfills; and will eventually stop the need for landfills in the future.

CLINTON COUNTY LANDFILL IN YEAR 2041

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A SLOW TRACK
AN ALTERNATIVE SYSTEM FOR THE WASTE CYCLE

The project aims to address this by introducing a number of new programs to the landfill. The recycling/manufacturing programs and facilities will maximize the recycling and manufacturing of the demolished materials into usable building materials. The education program will encourage deconstructing and reusing the salvaged materials. Display rooms will display those materials and create a successful market.

Different programs are connected by the new road/path next to the existing truck roads. Following the new path, visitors can actively participate in the process of reclaiming and recycling the materials. There will be one additional program, a landfill archive, that educates visitors on how landfills operate and what landfills are composed of.
Different masses act as examples of using those materials in buildings. There are two types of buildings – permanent and temporary. Display rooms are temporary buildings that can be expanded or decreased according to the needs. The education center, recycling facility, manufacturing facility, and landfill archive are permanent buildings that stay on this site.
"The divided section compares demolition and deconstruction. While efficiency aspects (speed, cost) are higher in the demolition, embodied carbon and embodied labor precarity are lower in the other."

The project assumes that even though the quantifiable efficiency of the demolition is still higher than deconstruction, there are other values such as embodied carbon and embodied labor precarity that mitigates the lack of efficiency of deconstruction.

It not only used a quantified dataset of embodied carbon but also used qualitative information to visualize what is affecting the two processes. The Sources include training documentation for both processes, papers comparing both, a data table of embodied carbon, and research on possible reuses of materials.
Demolition vs. Deconstruction

**Process Cost**
- Very high
- High
- Low
- Very low

**Embodied Carbon**
- High
- Low

**Embodied Labor Precarity**
- Hazard type
- Precarity cause

**Demolition**
- Brick: 0.2 kg C/ft²
- Reclaimed brick
- Concrete: 0.5 kg C/ft²
- Reused concrete aggregate
- Insulation: 1.0 kg C/ft²
- Not yet reused
- Plasterboard: 0.2 kg C/ft²
- Reused plasterboard
- Glass: 1.5 kg C/ft²
- Reused glass tile
- Salvaged window

**Deconstruction**
- Physical hazard: fall from elevated surfaces
- Chemical hazard: asbestos/burnt
- Employee hazard: metal debris
- Ceramic: 0.3 kg C/ft²
- Reclaimed ceramic tile
- Chemical hazard: lead

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Hein and Sani’s Rotating Wall of Fun is an assemblage of various recalimed materials. From scrap woods to wired nets, the materials used to make totem were collected from our beloved wood shop.

The fabricating and detailing process was not designed from the scratch for the whole new totem, but was endlessly adjusted by the sizes and availability of the scrap pieces from the shop. The revival of scrap pieces to a totem was driving the design, aesthetics and characteristics of it.

The totem not only stands for the reuse and reclaim of the salvaged materials, but also stands for an interactive and expandable design element. It reacts to people, surroundings and lightings, creating different atmosphere of the space.
The totem is interactable by people, backgrounds, breezes and sunlights. It creates different views according to the number of the openings, points of perspective, and surroundings.
1. COLLECTING THE SCRAP WOODS
2. FRAMING THE WOOD PANELS
3. DOMINO JOINTS FOR THE FRAME
4. SPRING PIN FOR ROTATING
The door handle is fabricated with CNC milling. The curve on the back and the angle give the ergonomic grasp to the users.
en- prefix

Definition of *en-*

1. : provide with
   // empower

2. : so as to cover
   // entangle

The projects in this chapter address social equity in the built environment through empowerment, *en*-tanglement, *en*-closure and *en*-largement. With the actions that bring the governances, the projects seek for a better community and society.
Social orders have been reproduced through bureaucratic and market systems over broad territories and temporalities. Systems of ‘ownership’ have been used as justification for the ever-existing social orders of inequity. With this temporal and territorial trans-scalar transformation of ‘ownership’, the act of justification of the social order became extremely complicated, deeply entangled with actors and their operations of the social. It incapacitated the less powerful to revolt against the systems. Through Gordon Matta-Clark’s FAKE ESTATE, I will attempt to recast the concept of ownership through paradox and disempower the reproduction of the power dynamics within the system.

The land of Manhattan was colonized by the Dutch in 1624, and the English took it over in 1664. European colonizers exploited natural and human resources of the indigenous of Mannahatta, and perpetuated the exploiting structure within the system. The lands were articulated as a managerial surface, enabling colonizers to efficiently govern the area and people living on it. The lands were artificially divided with lines into properties, and the slivers Matta-Clark bought were the by-products of the managerial surface. The property drawings, paper works, text records that Matta-Clark called “piece,” are the artifacts of colonial managerial and bureaucratic systems. The slivers of FAKE ESTATE were owned by Gordon but was unable to be seen or accessed by him and only existed in those documents.

Today, the perpetuation and reproduction of the power structures are accelerated within a highly capitalized social system. While colonialism of 16th century took dependent area or people with highly developed technology, power and will, contemporary capitalism takes them with concentrated capital. Capital is the only admissible means to take the ownership of commodities, in the social where everything is commodified including natural elements such as water, air and lands and metamorphic elements such as human labor and time. New York city of 1970s was under the movement towards neoliberalism, intensifying the logics of market within the social. Every citizen became a consumer and every object whether tangible or not became a commodity. The invisible, elusive and inaccessible slivers of FAKE ESTATE were priced and traded, even when their actual use values are absent. Only exchange value as a means of power perpetuation by capital remained.

The ownership of the lands of Gordon Matta-Clark from FAKE ESTATE was lacking the ‘sense of ownership.’ Within the systems, those lands of FAKE ESTATE are not places but spaces, which are mere terms of measurement and trades, lacking any endowed human meanings, history and emotion. A sense of ownership, unlike the ownerships under the colonial management and capitalistic market, is what makes the act of ownership valid. The sense of ownership provides consciousness of the property, land and object. It is based on the understanding of doings and connotating values within the lands and objects. By proposing the paradox of ownership within the systems, FAKE ESTATE of Gordon Matta-Clark is presenting political activism, disempowering the power-reproducing structures of the social.
Polynesia FIR is a gesture that pierces layers of ocean, atmosphere, outer space and the existing order of airspace with its form and function. It forms as a whole, but it also consists of distinctive parts. As a whole, it vertically expands in two directions. At the same time, each volume actively interacts with the layers of outer space, atmosphere and ocean.

The initiative addresses alliances of polynesian communities and environmental organizations. The proposed service center will be funded by them, and the revenue collected by over-flight fees will be shared with the indigenous communities. It reconstructs the power structure by organizing the operating system and revenue model.

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Portfolio | Hyuein Song | GSAPP Works | 2021-2022
The air occupations have been paralleled with the development of the power dynamics of the global. Near world war one and two, air occupations of military uses proliferated mainly for mapping purposes. During the Cold War, we noticed the invention of many space exploration crafts.

National, International and Corporative organizations negotiate and regulate different types of airspaces. Within territories, different sovereignty can set special use airspaces according to the needs regarding environment, politics and military purposes. However, with agreements and intervention of countries and international organizations, there are several international airspace divisions. For flight navigation, they divided air classes according to the height and nearby airports. The Flight information region (FIR) is a specified region of airspace in which a flight information service and an alerting service are provided.
OUTER-TERRITORIAL FIR AND A LOOPTHOLE IN OCEANIC ATC

The FIRs of Spain, France and the United States have expanded to outside their main territories, and these three countries are getting the airspaces above their collectivities, which can be interpreted as a contemporary vestige of colonial legacy. The governments of those mainland countries are getting revenue from the overflight fee.

The diagram below explains how Air Traffic Control centers work. Unlike ATC services above the ground, the substantial volumes of oceanic airspace lie beyond the range of ground-based radars, and oceanic airspace controllers have to estimate the position of an airplane from pilot reports and computer models, rather than observing the position directly. The lack of Air Traffic Control centers on the high sea defined the main program, and the reason for the existence of our proposal.
The proposal is a gesture that pierces layers of ocean, atmosphere, outer space and the existing order of airspace with its form and function. It forms as a whole, but it also consists of distinctive parts. As a whole, it vertically expands in two directions. At the same time, each volume actively interacts with the layers of outer space, atmosphere and ocean.

An Air Traffic Control center, placed in the middle, having a radar on the top provides air traffic control service within the new FIR, by communicating with satellites. A Weather research center focuses on research about weather forecasting and climate changes threatening the communities. An Oceanic research station concentrates on fishery and oceanic environment that affects the communities. This is a library and administrative building that provides research centers a collective archive. Also, the residences accommodate the researchers and workers of those programs. The base took the form of a buoy as a reference for the structure to float and stabilize in the specific environment.

**SELF SUSTAINABILITY**

Different technologies were added in terms of energy collection and water supply. These are Solar stills and rain water collectors purifying water, and wave power converters producing electricity.
BETWEEN THE SKY AND THE OCEAN

1. AIR TRAFFIC CONTROL CENTER
2. LIBRARY
3. OCEANIC RESEARCH STATION
4. WEATHER RESEARCH STATION
5. WRS - OFFICE
6. RESIDENTIAL UNIT
7. PURIFIED WATER TANK
8. OCEANIC AQUARIUM
9. WRS - MEETING
10. STUDIES
11. SPORTS COURT
12. PURIFIED WATER TANK
13. COMMUNITY SPACE
14. ORS - OCEANIC OBSERVATORY

LIBRARY / ADMINISTRATION
AIR TRAFFIC CONTROL CENTER
OCEANIC RESEARCH STATION
WEATHER RESEARCH STATION

SOLAR STILL
WAVE POWER CONVERTER
WAVE POWER CONVERTER
SOLAR STILL
RADIO
WAVE PUMP
AUTONOMOUS UNDERWATER VEHICLE
HUMAN OCCUPIED VEHICLE
REMOTE OPERATED VEHICLE
WIND SACK
ANEMOMETER / RAIN GAUGE
WEATHER BALLOON
WIND VANE TOWER

Between the Sky and the Ocean

FIRST FLOOR +5,300 MM
SECOND BASEMENT -9,500 MM
SEALEVEL ± 0 MM
FIRST BASEMENT -4,800 MM

Portfolio Hyewin Song | GSAPP Works | 2021-2022
Polynesia Flight Information Region | Fall 2021
Spaces above water interact with the air in various ways, through different materials and spatial structures.

The proposal creates a unique living environment. Various forms of everyday life happen with the entanglement of diverse spatial qualities. Common spaces incorporate different programs. The design is a reinterpretation of the qualities of indigenous architecture of French Polynesia.

UNDER THE SKY

UNDER WATER

Life with Polynesia FIR

Under water creates the most unusual atmosphere to the spaces. One interacts with light, water and living beings in spaces of Polynesia FIR.
The contemporary social is constantly fighting over various ownerships – ownership of an object, a property, an organization, and a country. When looked through an individual scale, it is related with the idea of ‘rights’ that the owner can operate and act upon a certain object, property, or organization. Through Sekou Cooke’s exhibition, WE OUTCHEA, I will attempt to challenge the idea and right embedded in ‘ownership’ by showing how the ownership has been denied and restricted under the name of development within the system.

In the 1970s, a development towards a modern and technical social was prospering. Different developing strategies including highways, new housings, internet, anti-pollutions were operated. Some infrastructures required physical spaces to build on, and the spaces were not of the rich, and powerful community. Low-income and colored communities were displaced under the rationale of development towards the ‘better’ social. Today, several decades from the 1970s, the history of displacement is still being repeated. Though it has been changed from the development for technology to development for humans, the question of ‘the development for whom’ has not been thoroughly articulated throughout different temporal scales. WE OUTCHEA: Hip-Hop Fabrications and Public Space (WE OUTCHEA) is a part of an exhibition series of MOMA, “Reconstructions: Architecture and Blackness in America”, which was held from February to May 2021. Sekou Cooke is commenting on low-income housing, using hip-hop culture, remixing the history of Syracuse housing project to help a community reclaim public space. The community members of Syracuse, the site of the work WE OUTCHEA, were displaced regardless of their will and right to stay on their homeland, and the displacement has been repeated under different regimes. The ownership was denied by the bigger mechanism – the development, and owners of the properties were forced to ‘lose’ their ownership of the properties and lands. The rationales of the development have erased the traces of denied wills, creating a new foundation for further displacements. The political system sacrifices the ownership of the poor for a bigger will – development. The cancellation of ownership of the poor creates the expansion of ownership of the powerful. The concentrated ownership of properties and organizations is used by the powerful to reiterate the power dynamics of the inequitable social.

The work WE OUTCHEA is bringing the layers of denied wills and rights of the ownership to the present. The intentionally erased or unintentionally forgotten owner-scapes were juxtaposed and presented through architectural drawings. The visualizations showing the ridiculously frequent displacements happened in one community question how ownership has been treated within the community. The installation of the stoop in the exhibition can be interpreted as the very place where the real ownership happens, and the way the true ownership looks like. People possess the property and space with their full wills and rights on stoops, sitting and watching the world, interacting with neighbors, and telling stories to their communities. Sekou Cooke’s exhibition, WE OUTCHEA, challenges the political system that produces both the ownership and development that overpowers the ownership. The ownership, empowered by the system of the social, has been depowered by the system. Also, by showing that the depowering of the ownership has been mainly focused on those of the poor, WE OUTCHEA also raises doubts on the rationales of development whether it really is directed towards a better, equitable society.
Once a country known for its homogeneity, South Korea’s population is no longer homogeneous. Over the past 30 years, South Korea’s highest in-migration rate has been through marriage. Primarily women from southeast Asian countries have been encouraged by government-sponsored subsidies to get married in South Korea.

This ‘marriage migration’ was driven by the considerable numbers of unmarried men in rural towns, resulting from fast economic growth and internal migration by rural women to urban areas. The migrant brides, in turn, have created economic and cultural links between Korea and their home countries. This cultural and social phenomenon (Onishi 2008), this movement has vast implications and impacts on the future of this country and on what it now means to be identified as “Korean.”

This project investigates these international and domestic scale movements; they reveal a spatial complexity created by marital cultures and local policies, all ultimately driven by economic necessity.
DOMESTIC MIGRATION IN SOUTH KOREA: 1970S AND ONWARD

Since the Korean War, South Korea has been experiencing tremendous and steady economic growth. In 2022, it is now the 10th largest world economy. The drastic increase in its national GDP from the 80s till now was coined the “miracle on the Han River.” Along with the economic growth, a mass country-wide migration from rural to urban areas has been ongoing. As a result, more than 50 percent of the national population now lives in the Seoul metropolitan area, which accounts for only 0.6 percent of the country’s land area.

Despite these recent economic changes and rural-urban migration, social life in South Korea remains embedded in Confucian culture, especially in rural areas, where the emphasis is placed on family and kinship.

The patrilineal Confucian definition of the family has an immense impact on domestic migration across Korea. Confucianism underscores that filial piety is a cardinal virtue and that marriage and procreation are the eldest son’s most important social obligations. (Hsu 61)

A traditional Korean nuclear family, according to Confucianism values, has four formal criteria:

1. The nuclear family 가 (家).
2. The family’s formal head 호주 (戶主), the oldest man in the family, holds significant rights and privileges.
3. The successor to the head-of-house 호주계승 (戶主繼承), which is the eldest son.
4. The estate is considered family property 가산 (家産)

Because of these traditional family practices, more men remain in rural areas than women, contributing to the decline in birth rate that has persisted in Korea since the 60s. The gender imbalance in rural South Korea caused a sharp drop in population in rural towns. As a part of the revitalization program of those rural municipalities, local governments started to provide subsidies for ‘marriage migration,’ and therefore to foreign brides, starting in the 90s.
In the 1990s, 35 rural municipal governments started subsidizing private marriage brokers to introduce unmarried male farmers to ethnically Korean women in China and women from other Asian countries, paying the brokers 4 to 10 million Korean won (back then, around $3,800 to $12,000) per marriage.

These policies were established in an attempt to address the aging population by encouraging these unmarried men to find a wife and eventually reproduce to increase population growth. However, after 30 years of this practice, in 2021, government subsidies started to be removed. As a result, in South Korea, between 2000 and 2005, such marriages increased almost fivefold, from 6,945 to 30,719 (Korea National Statistical Office 2011a). Now bolstered at more than 334,000, these marriage migrants (immigrants and naturalized by marriage) account for 16.7 percent of all immigrants in South Korea. Renowned as a monoethnic country, Korea is now demographically and politically shifting towards becoming a multi-ethnical society.

However, these political movements and economic subsidies supporting marriage migration are not 100% celebrated and, in fact, have an adverse effect. Marriage migrants report facing higher levels of domestic and social conflict. They are isolated from their home countries and remain disadvantaged in these new environments. Furthermore, they tend to face more economic difficulties since more men from rural lower-income brackets seek help from marriage agencies for foreign brides. A study conducted by Ewha Womans University in 2022 has found that “…immigrant women in patriarchal households were more likely to be depressed … poorer life satisfaction … and poorer marital satisfaction … than women in maritaly equal households.” (PLOS ONE 2022)

Marriage migrants have also been expected to maintain the patriarchal hierarchy by acting as compliant and submissive wives, limiting their career growth and eventual integration into Korean society. Language barriers, cultural differences, and financial dependencies contribute to the characteristic isolation these new immigrants face in the so-called homogenous society in which they have: ‘… marriage migrants play multiple roles - as mothers, domestic workers, caretakers, and family helpers.” (Piper and Roces 2003)
THE STORY OF PHAM, FROM VIETNAM TO CHEONGSONG COUNTY

Cheongsong County, a county in Gyungsang-buk Province, has an influx of marriage migrants, which make up more than 69 percent (160 of 231) of the foreign residents in the municipality. Among them, the overwhelming proportion is women. Additionally, Cheongsong County, a rural area of the province, was one of the counties that sponsored the most significant subsidies (up to 10,000 dollars per case) for international marriage as a part of rural revitalization policies.

In this section, we are translating the architectural space inhabited by a marriage migrant from Vietnam- Pham, through the images portrayed in the documentary film “Tales of Multicultural Inlaws.” By reconstructing the typical rural house where a marriage migrant lives in Cheongsong, we transform this narrative into a more intimate one. Her hierarchy in the household becomes visible to the viewers - you can see the limited access she has to a lot of the house and her workspace in her living quarters, including the kitchen, living room, and kids’ room. This clearly shows her unequal position and traditional feminized role in the family.

Despite these unfortunate circumstances, more and more individuals have broken this stereotype and become visible in Korean society. In addition, multicultural support centers in communities help integrate new immigrants. Furthermore, policies such as the “Female Marriage Migrant Family Social Integration and Support Policy” and the “Foreigners in Korea Fundamental Treatment Law” help ensure their successful entrance into Korean society.

While these domestic support policies and groups are significant in helping these marriage migrants, the economic benefit these women sent home and the numbers of unmarried men in rural Korea, which remains a phenomenon, means that this marriage migration will not disappear in the short term, and must remain as an ongoing social and cultural concern.

This research is conducted from the perspective of Korean society, which mainly investigates through the data visualization of population movements. However, if conducted through a political and economy-driven approach, this phenomenon would reveal much more conflict on the scale of international affairs.

Therefore, a probable different approach would be to trace back these marriage migrants to their home country by collecting data on their remittance and investigating how this money drives the supply of potential migrants.
Which streets should DOT prioritize activating across NYC to increase equitable access to public space?

From the Open Streets perspective, most major clusters are seen in Manhattan and the east side of Brooklyn, while less is seen in the other three boroughs.

Given that Open Streets provide great opportunities to rearrange the public space distribution equity throughout the city, our team developed priority criteria and suitability analysis to determine where new Open Streets are needed in order to increase equitable access to public space beyond the Covid-19 era. It is our hope that our equity-based suitability model will help inform the determination of new Open Streets locations in New York City.
New York City's Open Streets program is led by the city's Department of Transportation (DOT) under the umbrella of the Public Space Activations program. Open Streets aim to prioritize pedestrians and cyclists by transforming streets into public space, allowing for a range of activities and supporting local businesses and schools. The Open Streets program was largely initiated as an emergency response to the Covid-19 pandemic, but now, DOT is taking the necessary steps to make this program permanent and sustainable in the long term. Although the program is both popular and a net-positive for improving life in the city, there have been significant inequities in the planning and operation of the program. According to the Transportation Alternatives report, the city's promise to incorporate “equity and inclusion at the heart of the Open Streets expansion, with underserved neighborhoods getting new opportunities to participate” has not been met.

**METHODOLOGY**

**APPENDIX**

**DATA COLLECTION**
- Open Spaces NYC DOT (polygons)
- Street Centerline NYC Lion
- Open Streets NYC DOT (points)
- Buffer 65 feet (avg. street width)
- ACIS 2019 5-yr estimates: tracts (table)
- Census Tract (polygons)
- MapPLUTO tax lot NYC Planning (polygons)
- Race: non-white (table)
- Medium Household Income (table)
- Feature to Points (centroid)
- Make Service Area 1320, 2640 feet
- Create Network Dataset
- Open Space Access points (point)
- Feature to Raster Cell Size 20
- Reclassification 1-3
- Openspace Network Buffer (raster)
- Raster Calculation
- Residential Density Map (raster)
- Reclassification 1-0
- NYC Roadbed (polygons)
- Weighted Decision Roadbed Map with Scores (Raster)
- Weighted Decision Roadbed Map with Scores (Point)
- Spatial Join

**DATA PREPARATION**
- Open Space Access points (point)
- Make Service Area 1320, 2640 feet
- Create Network Dataset
- Open Space Network Buffer 1320, 2640 (polygons)
- Feature to Raster Cell Size 20
- Reclassification 1-3
- Open Space Network Buffer (raster)
- Raster Calculation
- Weighted Decision Map (raster)
- Weighted Decision Map (point)
- Spatial Join

**REPRESENTATION**
- Primary Dataset
- Analytic Layer
- Major Geoprocessing
- Decision Layer
- Joining Geoprocessing
- Decision Map

**SITE SELECTION**
- **BROOKLYN**
  - 12 Ave
  - Start: 58 ST
  - End: 60 ST
  - score: 40
- **BROOKLYN**
  - Skyler Ave
  - Start: Albany Ave
  - End: E 34 St
  - score: 42
- **BRONX**
  - 197th St
  - Start: GrandConcourse
  - End: Bainbridge Ave
  - score: 40
- **BRONX**
  - East 274th St
  - Start: Laconia Ave
  - End: Wilson Ave
  - score: 43
- **QUEENS**
  - Crochepine Ave
  - Start: 162 ST
  - End: 164 St
  - score: 49
- **QUEENS**
  - 115th Ave
  - Start: Francis Lewis Blvd
  - End: 204th St
  - score: 40
RESIDENTIAL DENSITY

Our project aims to prioritize underprivileged residents as much as possible. Therefore, residential density is essential to include as one of our decision layers. We chose residential units to represent density and classified the result into 6 categories. As can be seen from the map, Manhattan has the highest residential density, followed by Brooklyn and Bronx. Based on the spatial distribution analysis, we recognized that, although the residential density is important, it is also critical to consider that Manhattan residents already have high access to Open Streets and open spaces. Therefore, the weight for this decision layer was scaled down to 1 time, the least heavy amongst all other variables listed above.

PROXIMITY TO EXISTING OPEN SPACE

This decision layer reveals the network distance from the nearest open space access points to the rest of the city. Our team created a 0.25-mile and a 0.5-mile service area for existing parks on a pedestrian street network. Together, the two lightest colors on the map illustrate all pedestrian streets that can be reached within five to ten minutes on foot from parks. These two service areas helped us evaluate the accessibility of existing open spaces. The darkest color on the map indicates all pedestrian streets that can be reached within five to ten minutes on foot from parks. These two service areas helped us evaluate the accessibility of existing open space. The decision layer is weighted the second heaviest (the score for this layer is weighted 4 times more than the layer weighted the least heaviest).

PROXIMITY TO EXISTING OPEN STREETS

This decision layer reveals the network distance from the nearest Open Streets both ends access points to the rest of the city. Our team created a 0.25 mile and a 0.5-mile service area for existing Open Streets on a pedestrian street network. Again, the two lightest colors on the map illustrate all pedestrian streets that can be reached within five to ten minutes on foot from open streets. These two service areas helped us evaluate the accessibility of existing open spaces. The darkest color on the map indicates all pedestrian streets that can be reached within five to ten minutes on foot from the current Open Streets. This decision layer is weighted the second heaviest (the score for this layer is weighted 4 times more than the layer weighted the least heaviest).
ASSUMPTIONS & LIMITATIONS

Existing research on NYC Open Streets examined the disparities between listed Open Streets and active Open Streets, as well as significant borough-to-borough inequities in the quality of Open Streets. The criterion chosen to perform this analysis is based on existing research, as well as our own understanding of equitable access to public space. The scope of this project does not include assessing the operational status and quality of Open Streets. Instead, the project treats Open Streets as a land-use redistribution opportunity to reallocate land that was dedicated to cars to pedestrians.

This project’s site suitability model is determined by two built environment variables, two demographic variables, and one density variable. A more comprehensive site suitability analysis would probably contain more factors from each variable category, including but not limited to the degree of traffic crashes, air pollution, and width of streets. However, due to the scope and time constraint of this project, we will limit our priority areas to the five criteria listed above.

The ACS 2019 CensusTract demographic dataset misses racial and income estimates on a few tracts in NYC. The missing estimates can be caused by data suppression. According to the U.S. Census Bureau, data suppression refers to the various methods or restrictions applied to ACS estimates to limit the disclosure of information about individual respondents and reduce the number of estimates with unacceptable levels of statistical reliability. Therefore in our study, the census tracts with missing demographic data received a score of 0 in the two demographic criteria, which affects their score in the final weighted decision map.
The new Open Streets activations should prioritize neighborhoods with the least access to open spaces, least access to current Open Streets, lowest income level, highest minority race percentage, and highest residential density. In addition, proximity to schools, access to affordable transit options, and flexible car reroute are also taken into consideration in this new Open Streets site selection process.

Based on the weighted decision map, this project selected 6 sites with scores over 40 in Brooklyn, Bronx, and Queens; Manhattan and Staten Island did not have any roadbeds that received scores over 40. It is our hope that this project’s equity-based site suitability model will help inform the determination of new Open Streets activation in New York City.
RECOMMENDATIONS FOR NEW OPEN STREETS ACTIVATION

SITE 3
EAST 187TH ST
Start: Grand/Concourse
End: Brander Ave
Total Score: 42
Zoning: RS-2.5, high density residential zoning
Street Roadbed Length: 2060 ft
Added Public Space: 0.02 acre

ADDITIONAL REASONS
High overall score
High residential density
Beverage, low-income community
Bus access
Proximity to schools
Proximity to commercial streets
Flexible car routes

SITE 4
EAST 214TH ST
Start: Lazonia Ave
End: Wilson Ave
Total Score: 43
Zoning: R2 medium density residential district
Street Roadbed Length: 2060 ft
Added Public Space: 0.08 acre

ADDITIONAL REASONS
High overall score
Lack of access to open spaces, open streets
Beverage, low-income community
Bus access
Proximity to schools
Proximity to commercial streets
Flexible car routes

SITE 5
CROCHERON AVE
Start: 162 ST
End: 164 st
Total Score: 40
Zoning: CH-4 low and medium density commercial district
Street Roadbed Length: 1036 ft
Added Public Space: 0.03 acre

ADDITIONAL REASONS
High overall score
Lack of access to open spaces, open streets
Beverage, low-income community
Bus access
Proximity to schools
Proximity to commercial streets
Flexible car routes
California legalized the medical use of cannabis in 1996 when voters passed the Compassionate Use Act. 20 years later, in 2016, California voters passed Proposition 64, which legalized the cultivation, sale and use of marijuana for adults (recreational) usage. With Proposition 64 reducing the penalty for growing and selling pot from a felony to a misdemeanor, the illicit marijuana farms became audacious, moving out from redwood forests into the desert. Redwoods in California is not ideal to grow marijuana from an environmental perspective but has been the best locations for disguising the factories. Meanwhile, the deserts provide nearly perfect settings for large-scale factories, with endless sunshine, low-cost open space, and smaller number of detecting agencies.

This research aims an articulation with visual analysis of illicit marijuana farms in architectures and their impacts according to the timeline of the Proposition 64. By analyzing the conditions of the transforming architectures in relation to the regulations and reactions of the social, the project will disclose how the narcotic toxicity of marijuana industry and its architecture shape a fragment of the chemical modernity.
Traditionally, the redwood forests in California have been providing hippies havens to illegally cultivate marijuana since late 1960s and early 1970s. The redwood forests in Humboldt, Mendocino and Trinity counties knowns as the Emerald Triangle are not an ideal arrangements for growing cannabis, which requires ample lighting, nutritious soil and enough water. However, the remote locations and natural hurdles such as vegetations and rugged terrain furnish the best environment to hide the illegal scenes under the concealments of tall and green redwoods. It horizontally blocks out the visual attention as well as the odor of THC which can be spread and detected if it were not for the distance. The cannabis plants are planted in rows leaving a certain interval, mostly in the open air, sometimes inside the agricultural green houses. Near the farms, operational huts are located. Either inhabited or not, the huts are mainly constructed with metal slates, designed for the multi-year occupations. The redwood farms are intended to be highly disguised, avoiding the detections and raids as much as possible.

The reduced penalty of illegal marijuana cultivation to misdemeanor and the increased demand of the unauthorized market because of the legalization attracted new illegal manufacturers and entrenched the existing manufacturers. Among them are drug cartels operating large scale farms within international market systems. Weighing the profitability, the larger unauthorized manufacturers moved from the redwood forests to the desert seeking for the better environment for the farms. The open areas of the deserts of Northern California such as the Antelope Valley and the Colorado River have better lightings and proper temperature to grow cannabis, are more conveniently located to transport the products. However, they have also have a bigger possibility to be detected. They became more audacious, delicate, and organized than before.
The illegal marijuana farms in the desert areas camouflage themselves as ordinary agricultural greenhouses to blend into the landscape. Typical semicircle, rectangular or triangular section is extruded to form an elongated space with rows of cannabis plants inside. The structure usually does not consist of foundations or bases, instead, is directly touching the ground. The cannabis plants are planted either on the ground bed directly or in the plain planters. The frames of a repetitive profile are made of the simplest materials such as woods or PVC pipes, with simple joints. According to the scales of the frames, interior columns are added. Over the frames lies opaque plastic sheeting to block out any visual interventions. The openings are located at one end of the structures or both ends. The greenhouses are intentionally made with minimal composition that can be constructed and disassembled instantaneously. Greenhouses with the same languages are then lined up into several rows with minimum intervals for easy maintenance. The sizes of cultivation are relatively bigger than the traditional redwoods farms. Fences protect the illicit marijuana farm from external contact physically and visually. Fences are made of any materials that can be procured easily from nearest area, such as metal plates, meshes or wood panels.

However, the illegal marijuana farms are not severely affected by the detections and raids, by their nature. Architecturally, the minimal greenhouse structure grants the farms instant constructability and hence, quick disposability. The cost and time needed to re-construct the built environments are significantly neglectable compared to the revenues they are getting from the informalized operations. The farms can be rebuilt or newly constructed overnight, and the scenes of illegal production cannot be perfectly eradicated.

Moreover, in terms of their operations, the illegal farms are also relatively free from the detections and raids. It is all the laborers’ responsibility, not the managers’ or operators’, to meet the production goals, regardless of the detections and destructions of the farms, which strengthens the disposability of the hardware even more.
try  \('trɪ\)  verb

Definition of *try*

1  : to make an attempt

2  : to subject to something that tests the powers of endurance

3  : demonstrate, prove

The last chapter opens broad possibilities that are worth a try for my re-en-try into the world. These discourses are a call for not only the actions we already know but also the actions we are not even aware of.
Do we need to be sleep deprived to produce good architecture?
Do we need to pick passion over profit to be a good architect?
And ... Do we need to build at all to be an architect?

This is the second season of rAADio. In the next six episodes, we are dissecting conformity in architectural practice.

For us, practice includes designing, writing, teaching, drawing, fabricating, performing... but also, it may include not producing anything, and “just” thinking and learning.

This is, actually, at the center of this season of rAADio: we want to open the conversation about the expectations of architectural practice in academia and the workplace – like being always productive – to show that a non-conforming practice has many faces, and can be enacted in many ways.

**HS:** Through Limited vignettes mimicking reality, and sounds from the scene amplifying the ambience, we are collectively pushed into a seldom realised or understood reality.

**DL:** More moving than deceptive renderings and non-immersive writing, such highly curated, architecturally facilitated experiences lend us the opportunity to position ourselves at the epicenter of the discourse, allowing us to see, feel and sense issues first, and form conclusions through observation.

**HS:** Well Dhru, I don’t know about you, but going through this journey of architects beyond architecture and learning about all this wonderful work, I’ve realised that while we often tell ourselves that going off the beaten track is a Herculean feat that doesn’t guarantee success, that choice, coupled with hard work and determination could reap immeasurable rewards.

**DL:** Absolutely! Rewards that don’t just cease with a big, fat paycheck, but go on to transform us holistically into better versions of ourselves. Outside the familiar, restrictive box of conventional architecture, there exists a whole other world, with multitudes left to unpack, if only we could give it a chance!