2019-2020, A Year to Remember

We keep changing our position, we are looking for a different angle that neither adds nor subtracts, forever on the margin, forever in transition. We write with pens of different colours, but these things, too, easily become superficial. Is this how history is constructed?

Excerpt from “Images of Hong Kong”, by Leung Ping Kwan (1949-2013)

What an academic year this has been. From June 2019 to June 2020, university life was not defined by the standard school schedules—summer workshop, first week of school, midterm exams, and final reviews. Rather, we marked our agenda by overcoming interruptions to the calendar. From protests in the streets of Hong Kong to a pandemic that has impacted cities around the world, we have witnessed historical events unfolding in real-time. June, July, August, September, October, November, and December, followed by the new year’s January, February, March, April, May, and June—each month seemingly more destabilizing than the one prior. As a result, this year’s students and teachers alike have faced challenges that were impossible to previously fathom.

Thesis, which has always presented unique challenges of its own for generations of aspiring architects, has been even more difficult this year. Years of education and training, leading up to a graduate thesis project that is both a dreaded final test and a hopeful rite of passage. Architectural thesis topics here at the University of Hong Kong have always tended to be conscientious and serious, tackling challenging issues in this city and around the world. This year, there is an increased level of somberness in the thesis as developed, decreased production in terms of models and drawings, as well as more noticeable uncertainty and hesitations in the verbal presentations. And yet, as evidenced in the works presented in the studio space, the conversations prompted by such work, and the ideas introduced here in this book, the architectural thesis at HKU is more ambitious than ever. From engendering housing affordability to designing architectural activism in Hong Kong, from remediating ecologically damaged new towns in India to speculating architecture in a post-Anthropocene Arctic, this year’s thesis projects challenge the status quo of not only how architecture should be constructed, but how the world should be built.

Painstakingly, we have learned to work from home, teach on Zoom, study online, draw on screens, breath through masks, sanitize our hands, social distantly, talk remotely and yet walk intimately. We have learned to appreciate simple social interactions that were previously taken for granted: marking on the same drawing, touching the same model, being in the same room, and breathing the same air. Ideally, we have also learned to plan with contingency, anticipate the unexpected, question the doctrine, understand the differences, and respect the humanness in us all. What an academic year this has been.

Dr. Juan Du
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THESIS 2020 DEPARTMENT OF ARCHITECTURE | THE UNIVERSITY OF HONG KONG

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Experience, Employment and Education
Explore the new model of rural renewal
FOOD CITY FOR
THE FUTURE OF
HONG KONG 2050

There is an emerging recognition that food crisis is one of the greatest issues that all cities face in the 21st century. Urban agriculture has the capacity to mitigate the food crisis in cities. In response to the issue of climate change resulting in food crisis and the unsustainable way of transporting food, urban food plays a vital role in reducing carbon footprint while providing food for the citizen. This thesis identifies some of the potential places for planting food and proposes new strategic systems to implement into the city area. As the technology of farming has improved dramatically over the past decade, it is time to consider bringing agriculture back into the urban cities. The existing method of agriculture could be improved with the new farming technologies. Hong Kong has a lot of chemical and acid in the rain, which is polluted and unsuitable to use for plantation. In this study, Wan Chai in Hong Kong has been selected as a case study to examine the possibility to infiltrate agriculture into the existing urban context. This research re-evaluates the method of planting food and new livestock farming to increase food production. Some of the potential future food have been investigated by farmers. By demonstrating eight different typologies to be used in the visible and invisible places such as blind wall, rooftop, Victoria Harbour, underground, pedestrian bridge and highway, old vacant tenant space and office façade, refuse collection, urban park. The thesis aims to enable an optimum subtropical environment for the city of Hong Kong. The purpose of the food city project is to help reduce food risk associated problems in communities and growing cities, making food production more transparent and using clean energy to produce fresh food closer to home. Local residents become a key part of the system. The vertical food city improves the city from an ecological point of view but also encourages local community participation and social inclusion. It has the potential to help people with limited resources and to provide education in agricultural practices and healthy eating.

CHEN JIAAO
Thesis Advisor: Valerie Portefaix

REWILD AN
ABANDONED
VILLAGE

Is building skyscraper on the land of Kambung Baru in Kuala Lumpur the only way towards urbanisation? The 123-year-old Kampung Baru village was an agriculture land at the beginning of the Malay Settlement. The area owes its rural atmosphere and it takes only half an hour walk to get to Petronas Twin Towers. Yet, only few residents remain due to the launch of government redevelopment scheme. These abandoned houses were seen reclaimed by nature when humans are not around. you may also find chickens and goats wandering between cars and narrow lanes. When we look at this piece of land in 2050, we would not recognize itself by a generic development.

CHANG TZE WEI BRENDA
Thesis Advisor: Joshua Bolchover

The thesis focuses on an alternative development scheme for a village that has a rich background with 30% of residences remain. A range of tools is introduced to address the conflict of the relationship between nature and urban, including rewilding and remediation, upgrading existing and new occupants into a new infrastructure. The proposed development scheme will be demonstrated by a collection of research to show that the solution is appropriate.
This thesis examines the idea of turning a car-oriented new town to become a pedestrian-oriented walkable new town, and how it can get rid of boredom in people’s everyday life to avoid suicide.

Tin Shui Wai (TSW), also known as the ‘City of Sorrow’, is a new town where numerous suicides and family tragedies occurred. It is seen to be closely related to its demography, architecture and town planning. Tin Shui Wai has a homogenized land use, predominately residential area, with 75% of its population living in public housing and 25% living in private housing. 91% of the workforce is employees and more than 40% is low-skill labours. Homogenized land use also creates insufficient amenities and entertainment. The lack of communal space for people to socialize led to a weak community bonding. The unify program and types of buildings, wide streets with huge separation, bridges connecting malls created a similar experience throughout the site. Since TSW is far away from other towns and urban centres, and transportation to other areas would be rather expensive for these low-income families, they seldom leave the neighborhood. The atmosphere and environment within the town thus influence their mental and physical well-being. Their daily routine can be described as a generic loop. When every day is a loop with predicted events, how can we pursue the meaning of life?

These low-income families are the vulnerable group of any political and economic instability. There is a need to change how these people are living.

The project offers studies on how the town is experienced in terms of scale and time by the people with the current road and street network. Ultimately, by converting and re-planning the road and street network, it offers a new lens to the users.
My thesis explores the potential of a palimpsest drawing in communicating spatial change over time as a new mode of documentation in architectural design. It aims to rethink the drawing as a 1 to 1 spatial synthesis of past histories to generate anachronistic constructs.

In the digital era, the non-hierarchical structure of the internet treats information in a way that alters not only our understanding but also our perception of it. Culture is presented as a fragmented whole amidst a flatland of undifferentiated parts resulting in the current construction of our built environment. It becomes increasingly decontextualized and often disregards traces of the past.

Searching for a new method of archival documentation, the thesis utilizes architecture as a medium in tracing the specifics of both the history and the narratives of space. A new methodology is developed to allow the transcription of the temporal effects of time. It aims to reterritorialize these forgotten fragments of the past to construct a space that is not merely a single-handed representation of the present, the past or the future but a negotiation of what once was, what presently is and what will exist.
This thesis is a retroactive manifesto based to set in the year 2000, focusing on the context of a dense urban environment within Hong Kong which has increasingly shaped a stressed population. The project is about creating ‘momentary otherness’ booths all over the city where individuals can stop by as a therapeutic momentum. The locations of the booths will be replacing various selected existing public payphone booth locations. Where distractions and interactions within smartphones have yet to exist, the thought of connecting to someone to assist or having online apps to soothe the mind is not simply a click away. With virtual applications that practice mindfulness and therapeutic uses existing now, this thesis will move forward to the exploration of the virtual realm and discover how virtual can inspire and be extracted back to the real as physical spatial elements. The momentary otherness capsules placed in the past will then become a fragmented memory of architecture today; This artefact is then to be discovered throughout the thesis as a vital element within the urban context of the city in the period of ten, twenty years from 2000.

P.S.

Phone booths in Hong Kong Year 2000-2020; A personal yet public place, now obsolete and maintained by having a second life. The methodology of using the past as a lens through which the project can imagine the future will not merely be highlighting the interconnectedness of the past, present, and future, but using existing phone booths as a symbolic representation which serves a fragmented memory of architecture within the urban context of the city. Once a tool to connect to others, now to be disconnected from others but to connect with one’s inner self.

A BIOPHILIC RAILWAY STATION

Transforming Kai Tak Station from a non-place into a place

CHUNG WING YAN
Thesis Advisor: Wallace Chang

This thesis proposes to transform railway stations from Non-places into Places. This thesis argues that, by addressing the engineering infrastructure as an architectural project within the discourse of architecture, a station can be a Place with identity, interaction, livability, and history.

The railway station is always underutilized as a transitional ‘Non-place’ with its repetitive operations and anonymous commuters. However, as a transit hub in an urban center, it possesses the potentials of being a ‘Place’ to foster social interactions and promote a sense of community. This thesis aims to develop a new typology to argue for a reposition of railway infrastructure.

Taking Kai Tak as a testing ground, this study proposes to develop a biophilic station to achieve the community’s smart and sustainable development. The government decided to convert the ex-airport site into a green community. In line with the development vision, this thesis explores the chance of integrating the station with nature and applies natural biophilic design in infrastructure. Green stations perform as public places to celebrate human innate love for nature. Architecture can accommodate, integrate, and induce diverse human movements. The movement of large crowds is like a fluid. The miscellaneous commuter flows are the main design driver. The station should perform as both node and place. It allows fast movements to optimize the node operation. It also encourages temporary stay and fosters slow movements for socializing. Therefore, to create a Place with different Paces, this thesis is equipped with sets of quantitative research to investigate the relationship between human movement and the station configuration.

By transforming a station into a natural place with various paces, the station connects humans to humans, humans to nature, and humans to the place. A new station typology not only acts as a transit corridor to penetrate districts but also performs as a destination to enrich a community. A station-garden not only boosts cities’ mobility but also enhances communities’ cultural, ecological, and sociological values.

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CAMPO AMARAVATI

FAN XINKAI
Thesis Advisor: Guillaume Othenin-Girard

Starting from 2014 in south India, Amaravati collects fertile farmland from farmers and gives them a promise of a new modern capital city. But after 19 May, due to financial and political problems, construction work in the city has been stopped, leaving these unfinished roads, buildings, and foundations in different stages of completion. Workers are leaving the city and investors quit the project, even the government is planning to relocate the capital city to other places, leaving a huge question mark and uncertainty above the future of the unfinished city.

The failed modern utopian remains recall Piranesi’s work of a radical city imagination, Campo Marzio, which gives a depiction of reconstructed Rome with ruins of ancient Rome. This series of etching proves that ruins, surrounding or the whole abandoned territory can be read as new start point of a new city and the attempt of drawing indicates his speculative city idea at that time.

The thesis criticizes the speculative urbanization activities in Amaravati. Though many cities in the world have an urgent demand for urban improvements, very few projects consider the populations that need them. Amaravati is one of them. Local governments, business, and other different economic interests become the generator of urban development. The Land Pooling Scheme by the government got farmers’ land to be a new capital but produced a fragmented landscape with no possibility of economies of the scale, thereby creating a situation of captivity for these communities that are now completely dependent on the state and easily influenced by political interests.

The proposal is an infrastructural strategy that restructures the remaining landscapes in Amaravati from the small scale of the village to regenerative the whole farmland. The project is a system of roads by agricultural infrastructures with grassroots urban development method based on the Krishna River catchment area. The farmers own but also exploit the land, adding value to the land through their agricultural activities. And the grassroots way is an attempt to introduce architecture as a way to reorganize the relationship with the landscape, also the first step to build the farm cooperative.

AMARAVATI’S ACUPUNCTURE

FAN PINYUE
Thesis Advisor: Nasrine Seraji

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Urban renewal is an inevitable process happening in Hong Kong with the rapid development of the city. During this process, how to rejuvenate the old urban area, to retain Hong Kong’s characteristics, and to provide a better living environment for the local residents and community are the topics which require further consideration.

Culture-related industry is a rapidly developing industry in the past decade. Hong Kong as a multi-cultural society has the potential and background to develop culture industry. With the encouragement from the government, several projects have been finished in Sham Shui Po district, while they still lack influence and interaction in serving the whole community. Thus, it is hoped that through my design and architectural transformation, the new cultural industry could stimulate the community’s redevelopment. It is hoped that the community will be revitalized in the future, and could have more development possibilities and become a region reflecting Hong Kong’s local characteristics inside the area of Sham Shui Po district.

A metaphor version of Michelangelo’s ceiling fresco “THE CREATION OF ADAM” could somehow show my interest about the disappearing lifestyle in traditional alleys. Since old age, life in these communities always has two sides which are “the life on the street” and “the life under the street”, meaning that not everything happened here is legal and positive. However, everything here made up the whole community’s thriving lifestyle and intimate neighboring relationship. In the last few decades of China, a situation that almost all kinds of cultural sites and activities are facing is the “fake revitalization”, leader party introduces development policy with big picture and movement which actually erase everything indecent and substitute them with huge city mark project.

One thing I want to explore more in my thesis is a post lifestyle that what if the role reversal appears in some part of the city? Those which used to be sunken, submerged, or hid in shadow once being revealed in plain sight. Will it become a farce? Or even could not last for long? Or finally getting accepted by the public?
REGENERATIVE ASSEMBLING METHODS

Revival of traditional timber joints by digital fabrication methods

HU CHI HING
Thesis Advisor: Christian Lange

This thesis project examines the possibilities to bring back the lost beauty in the ancient technology of timber joinery in Asia, by reinventing them with computer/automatics-aided fabrication methods. The aim of the project is to suggest a new assembling system that recycles/upcycles timber materials and regenerates new structures by joining separated components together.

The project is initiated by realizing the massive architectural waste produced as a consequence of wide use of unsustainable material in the past century, especially at this unique moment in the history when reinforced concrete has been invented and used massively for a hundred years. Given that concrete or many other common building materials are having around a hundred years of material life, architectural waste will be a huge problem in coming decades. Therefore, use of sustainable material and regenerative methods is an urgent issue in this significant time.

By learning from the minimal use of material and intelligent spatial combinations in traditional timber joint, the project sets out to experiment and challenge the possibility for extensible space structures in various geometries, without losing structural stability. The use of robotic arm allows for more precise control in angled joint that even seems difficult for traditional carpentry, and also democratizes the use of complicated forms by simultaneous calculation and optimization.
CAOCHANGDI: HOW TO BRIGHTEN ITS FUTURE?
Exploration on Art Village Regeneration

HU YANGZI
Thesis Advisor: Beisi Jia

Modern China is committed to building national soft power, which promotes the status of contemporary art in China changing from marginalization to recognition. While artists tend to seek cheaper spaces that are situated at developed and over-commercialized areas. Urban villages, with their low rents and wide spaces, are often hotbeds for the development of high cultural capital. With the intervention of the government and developers, many urban villages are transformed into art villages, copying from the capitalist development model of western art districts. This leads to two polarized outcomes: one is the gentrification of the art village; the other is that art village is regarded as an idle zone with excessive cultural and symbolic resources. As the political and cultural center of China, Beijing has created a successful 798 art district, but its rising rents drove many artists out, and finally the 798, which lost its high cultural capital, became an art district controlled by commercial capital. Unlike the art district, the primary purpose of art village is for living, which mediates the pace of commercialization process, but also faces the gap between the local and the artists. Facing the rapid urbanization process, art villages need to exist with a new strategy. This thesis aims to explore the regeneration mode of art village, to provide a redevelopment methodology, a modular prototype for art villages in the dual context of urban village and Chinese background. I chose Caochangdi as my testing site. With the goal of closing the social, economic and cultural gap between the local and artists, I will provide corresponding strategies from the urban, community and architectural levels.

The thesis “cache memories” is a series of memory theaters designed in a virtual environment for a family who is suffering from dementia. This design aims to expose the possibility of an architectural field in the near future, that is, the virtual world will become a new physical space waiting for the intervention of architects. And the virtual environment will no longer be a visual tool for electronic models or elaborate commercial advertising space.

In the thesis, the virtual architect transforms the nostalgia therapy of dementia into the space design of the virtual world. The first step was to collect nine fragments of memory from the family about the elderly with dementia; the second step is to transform the details of these fragments into objects of memory in the virtual space, such as windows, doors, a brick wall, etc; the third step is to classify, arrange and organize these objects according to the similar logic of Camillo’s memory theater. The fourth step is to make this new virtual memory space the re-experience, re-construct, and re-participant building of family memories. Also, through construction of such a building, the family is helped to fight the disease of forgetfulness.

By taking advantage of the immateriality of the virtual world, architecture can release more potential to construct narrative space. At the same time, through tools like VR, these spaces can be directly experienced by people. Moreover, the virtual world has the potential to be copied in batches, which can quickly transform architects’ thinking into a large amount of social influence.

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Rethinking Monumentality in Hong Kong 2020

The project advocates an alternative point of view to evaluate the monumentality of public buildings and spaces in the context of Hong Kong 2020. As a statement or question to challenge the existing monumental presence of public buildings, which contains elements resembling the key features of monumental buildings described in Nine Points on Monumentality published in 1943 that occupied the heart of different districts, the project aims at dismantling the synthesising factors that lead up to, or even formulate the standardised setting and appearance of public buildings at the present time.

Public spaces were initially formed by the gathering of people for various reasons, for example natural resources in the ancient time. Along with the increase in the complexity of the public programmes and the advancement in architectural thinking and building technology, public buildings began to gradually increase in terms of heights and sizes, as well as the number of ornamental architectural features and installations to further emphasise their monumental presence.

The project challenges this linear evolution of the visual and physical dominance of the public buildings within the different districts of the city and suggests an exploration on the possibility of developing a new definition of monumentality that signifies the collective feeling of not only the government, but also the people of the current time. One possible approach would be submerging the public buildings underground and giving the existing structures and the prime locations back to the people. The unnecessary elements of the existing public buildings, such as architectural ornaments and the outstanding size contributing to the visual impact may be disposed, whilst the necessary elements that contribute to the overall wellness of the programmatic arrangement, such as an efficient grid structure built with modern building materials, may be preserved when developing the new design of the public buildings. The additional land created and empty building structure preserved from the existing buildings could therefore be redeveloped as housing with a portion of the spaces accommodating other programmes that address the existing social problems in the city, for example elderly care and environmental protection.

Below Groundline

As a special phenomenon of the high-speed metropolitan urbanization in China, urban villages are always regarded as slums in the cities due to their poor sanitation and bad living conditions. On the other hand, cheap consumption and convenient transportation there provide affordable living habitation for abundant immigrants in Shenzhen. It is reported that there are around 300 urban villages in Shenzhen, which contain nearly half of Shenzhen’s population in a total area of less than 10% of the city’s land. With the process of urbanization, the government gradually reclaims land ownership and transforms these informal urban villages into Central Business District in order to balance the huge demolition compensation fee. Tenants who originally lived in urban villages are expelled to move towards remote rural-urban fringe zone due to high rents after the renovation. And in turn the long-distance commute also brings new social issues like traffic jams.

Under this circumstance, the thesis aims to challenge the government’s scheme of developing urban villages into Central Business District and tries to come up with a new urban form in the central district of Shenzhen. Composed of most immigrant workers, the result of demolition of urban villages in Shenzhen is supposed to provide better living conditions for common citizens instead of achieving several millionaires. In the long term, a sustainable city could not totally be surrounded by high-rise buildings and a healthy city is supposed to be consisted of diversified levels of population. Therefore, my thesis attempts to balance the interests among different parties through ecological perspectives and provides new mingled housing complexes at the center of the city. In this way, original urban villages will exist as urban oasis and form into an ecological archipelagic network, which regulates the micro-climate to alleviate urban heat island effect and induces the ripple effect to influence the surrounding urban environment.

Urban Oasis

Reconstructing the urban form in Shenzhen through ecological system

Huang Shidan
Thesis Advisor: Nasrine Seraji

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Massing Strategies Through Multi-Objective Optimization

Translating Hong Kong’s building code into constraints and objectives

IP Cheuk Sum Sampson
Thesis Advisor: Christian Lange

Building codes are set up to safeguard the health and safety of a city. Its algorithm however is not site specific, each and every site is constrained against the same matrix. The thesis proposes a new tool to evaluate how building massing would impact the surrounding context. By using a generative design approach, massing is tested for its own performance and its impacts on the city. Designs are evolved through machine learning to reach the optimal solution against weighted parameters. The multi-objective criteria would evaluate for environmental performance, massing orientation, building performance, feasibility etc. Such tool would redefine feasibility studies with data driven designs and ultimately better inform how to create building massing.

The Negotiations of Space

An explicit methodology towards creating spatial specificity in architecture

Hung Wai Yin Louis
Thesis Advisor: Anderson Lee

The thesis investigates spatial specificities between Served and Servant Spaces.

Historically, as a result of structural and social fortification as well as the feudal hierarchy of the occupants, the castle typology deals with the idea of the Served Spaces (the intended primary and independently inhabited spaces) and the Servant Spaces (the secondary and the supplementary spaces to the Served) in a way that establishes a distinctive order of hierarchy between spaces. At a turn of the century, there was a paradigm shift in architectural design to value the adaptability and efficiency of buildings. This subverted the relationship between the Servant and the Served and subsequently, the design methodology eradicated the possibility of spatial specificity.

In identifying an explicit methodology, the thesis generates a quantifiable understanding of the critical aspects of design that allows specificity in relationships and connection between spaces to be created and expressed within the architecture. The project could then re-establish the spatial hierarchy, definitively by its built structure, in each sequence of space and at the same time pinpoint the possible point of interjection where multiple sequences could co-exist and connect without reducing the space to one of homogeneity.

In a sense, the thesis looks at the dichotomy between spatial specificity and the programmatic functionality - the idea that the architecture could be 20 years old or 2000 years old, the physical structure would remain as locus of the pre-established human action in space.

The program would only become the spatial informer of the relationships between spaces and sequences of spaces, and the architecture transcendent of the circumstantial relevance of its occupation. The architecture could, only then, once again become robust, not merely as an ‘empty shell’, but become the precise transcription of the specifically prescribed relationships, connections and seclusions of space.
PREPARE THE LAND

Architectural activated renaturalization as the preparation of redefined urbanisation on floodplain

This thesis provokes us to discuss how territorial negotiation between human and nature can be considered as an alternative in this Anthropocene while overwhelming reclamation of natural land is killing the earth.

Architecture is always seen as consequence or achievement, followed by the cognition that “Building Behaviour” is just a process that fights against the dynamic change of nature. For this reason, the value of the “building process” is very likely to be neglected. However, everything natural on the earth is live and under continuous dynamic changes. Building Behaviour should join the process of nature instead of breaking it.

My thesis starts with the research of the special topographical condition of Amaravati and the morphology of the water body of Krishna sub-basin. Learning but thinking differently from landscape urbanism and river engineering, I am trying to let building behaviours become activators of natural recovery and drive landscape forward. Taking advantage of the energy of the blood vessel of nature, river hydrodynamic, the environmentally killed floodplain will gradually be mediated and renaturalized. The new grown landscape will be the future preparation of a co-living urbanism.

The strategy is to explore the natural capacity of a piece of land instead of the construction capacity of it.

A new definition of Building Behaviour will provide a new development order and redefine “urbanisation” on wetland.

INHABITING THE TERRACE

Inhabiting the Terrace experiments with the structure for living on the terraces of Hong Kong that accommodates multifaceted space for inhabitation. The distinctive spaces of different scales, enclosure, privacy, quality and atmosphere entertain and celebrate everyday dwelling as heterogeneous experiences given the unique typographical condition. The diversified space and experience happen in both scales of the collective housing and the individual household.

The terrace site at the urban periphery raises opportunities to maximize the spatial diversity. The thesis reflects upon the existing governmental public housing proposal. The gradient from urban to nature, from public to private is observed on the site. This drives the massing approach. The ground condition is elaborated to cultivate the happenings in public domain. It investigates the nuance of privacy through the design of circulation- common plazas, alleys, shared courtyards and roofs etc. The solid-void relationship is examined for the space and inhabitation of not only indoor but also outdoor.

The thesis explores the system of living that responds to the heterogeneity of dwelling activities as well as the site condition. The integral system incorporates the space and structure, stimulates discourse related with urban dwelling on privacy, indoor-outdoor relationship, tectonic, and atmosphere.

JIAO LEI
Thesis Advisor: Nasrine Seraji

JIANG NAIXIN
Thesis Advisor: Joshua Bolchover

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JIAO LEI
Thesis Advisor: Nasrine Seraji

JIANG NAIXIN
Thesis Advisor: Joshua Bolchover
FUTURE RUIN 華世廃墟
Re-interpreting the built-environment through present, past and future

LAI MAN YEE
Thesis Advisor: Nasrine Seraji

The thesis is inspired by the exhibition ‘Paradise Lost – Gazing at Contemporary Urban Civilization and its Metaphor’ in Taipei.

“The city is like a large house, and the house in turns is like a small city.” — Rossi

The thesis aims to re-interpret the ruin of 21st Century Hong Kong by analogical thinking allowing for both memory and history; mixes autobiography and civic history, individual and collective. History has to be constantly rewritten according to the needs and anticipations of new generations. In the museum, such writings take the form of new additions and the remodeling of former parts. A museum can be a narrative and a system that assumes an architectural form.

The thesis touches upon the issue of ruin. In the Renaissance, ruin is described as a fragmented scripted text of antiquity of monuments, tombs, columns. For the 21st century, modern ruin is the result of rapid urban transformations. A monument is dialectically related to the city’s growth being the primary elements in the city which are persistent and characteristic urban artifacts. In the short history of modern development in Hong Kong, human impacts can be traced in the coastal reclamation in shorelines and development of highways, shaping the barren rock.

Since the modern ruin is closer to our age of living, the modern ruin evokes emotions to the loss of prosperity and security of the recent years. If the progress of the 20th century becomes the ruin of the 21st century, how will one look at the problem of the 21st century from the lens of the 22nd century? Through ruin, one can see the progress. How can architecture regain its power through the mistake it has made as opposed to the glory it has had?

CORPORATE URBANISM

Time framing of cybernetic city: Neo-Suwon-Samsung

KWOK CHUN HO
Thesis Advisor: Koon Wee

Corporate urbanism, especially designed for a city to accommodate the growth of one mega-corporation, in nature, is a topic of contradiction in the first place. One prosperous and controlled utopia could be a “high-tech-low-life” in corporate board’s eyes, but a chaotic dystopia in grassroot labors’ view at the same time.

In term of stance, this thesis is not aiming to promote or criticize the projected future of Suwon-si, giving value judgement over the others, but an imaginative recording of how current corporate expansion might lead to. Understanding architecture built nowadays will persist as a legacy of the past-society in future, though perspectives of the above two most contrasting roles, addressing top-down controlled planning versus informal localized sprawling, this thesis attempts to explore how the nature of urban space and existing fibers shift forms and challenge the contemporary understanding of city design in such near-future setting.
"Theseus and the Minotaur" is a story in Greek Mythology. Theseus killed the Minotaur with the sword and then used the string to escape from the labyrinth. Facing carnivores, herbivores always choose to escape. Before being killed, Minotaur used many years to rebuild the labyrinth for evading Theseus's pursuit. Theseus is a hero, son of Mino king, and Minotaur is a monster, half man and half bull, at least in the perception of many people. Yet, the fact is that Theseus killed the Minotaur in the labyrinth, and the Minotaur was only used as a tool to exact a toll out of the Athenians by Minos and to assist the Theseus to become King.

Like the main character Ralph in the movie Wreck-It Ralph, Minotaur has played the role of a monster for many years. He is meek and timid in heart, but in order to escape from the hunt of the Theseus, this time he plans to use his skills and construction space to change the ending of the story, trying to use architectural language to prove himself that he can also be a hero.

This architectural imagination and design revolve around the labyrinth. The design starts from two different perspectives - Minotaur and Theseus, and use their original understanding of architecture as an element of architectural design to maintain the development of the story.

In Hong Kong, a 1,106 km² metropolitan with a population of more than 7 million, waste is not just a problem but a crisis. Numbers of mass media have already reported the waste crisis in Hong Kong for several times, this issue is certainly an elephant in the room to Hong Kong society. Landfilling is the most common way for dumping waste in Hong Kong and with the latest prediction from The Hong Kong Environment Protection Department (EPD), three huge outdoor landfill sites (NENT, SENT and WENT) will reach their maximum capacities in 2020.

This thesis aims to experiment how architecture could reshape our waste treatment facilities and therefore regenerate our community at district level. To apply upcycle theory, the three sites of the projects are abandoned schools with different typologies in Yuen Long district which is regarded as the most wasteful district in Hong Kong. And to raise the environmental awareness of the local residents, through hands-on recycling programs to create closed-loop resources within the architecture and to boost social cohesion and bonding between the locals and the architecture. The architecture is aimed to serve different target groups in the community at different times of the day. To adapt to different usage and weather of the day, the architecture is able to expand for temporary programs and with different expansion systems. Also, the project focuses on the life cycle of building material and materialization. Referencing Design for Deconstruction, reclaimed materials from the neighbourhood are used for the construction. To strengthen the connection among the architecture, community and recycling, the community would involve in making recycled paper panels in the workshop which is one of the major building materials because of its lightness and flexibility.

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The project explores the alternative states of mind (for better or for worse), there are no absolute good guys and bad guys, no absolute heroes and monsters in this world.

This architectural imagination and design revolve around the labyrinth. The design starts from two different perspectives - Minotaur and Theseus, and use their original understanding of architecture as an element of architectural design to maintain the development of the story.
In face of the decaying urban fabric of Hong Kong, the current pace of redevelopment under the existing model is far from efficient. At the same time, the issue of housing shortage of our time in Hong Kong is unprecedented.

With shrinking living spaces and monopolized markets, middle-class and grass root residents have little to no influence on the market.

Instead of purchasing the properties of existing buildings, which is an expensive and lengthy process, the development potential of the space above existing buildings is acquired.

New developments with structural steel with main structures are erected on top of the existing building while minimizing the disturbance of the current structure and inhabitants.

At the same time, the proliferation of homogenous new housing design featuring glass curtain walls prohibits residents of any chance of customization and expansion, which otherwise is enjoyed and celebrated in many tenements buildings of Hong Kong. In James Wine’s High Rise of Homes, the theoretical project re-envisioned the possibility of high density living with individual character of a house. The thesis attempts to re-interpret such thinking by using timber structures as unit infill, which allows unit mutation and varying façade choices according to the tenement’s needs.

By making use of lightweight hybrid structure of steel and carbon-sequestrating construction materials of timber, the thesis seeks to explore the potential of proposing an alternate housing development model led by architects and aims to offer more reasonable options for homeowners and tenants.
Aging is universal and inevitable. Facing the aging population, rather than seeing aging as a problem and the elderly as a burden of our society, the thesis sees the elderly as assets of our society and seeks to create a stage to empower them.

In tracing the discourse of architecture engaging aging, it is found that the perception of the old has changed, and so as the architectural implications. There is a shift in aging attitude from passive and dependence to active and autonomy. Autonomy and long-term care may seem paradoxical, but the key in the end lies in the decisional control and choice in shaping one’s life. Among the different retirement settlements, often the elderly prefers Aging-in-Place, so as to stay independent and free as long as possible. They also enjoy to remain close with their established social networks in their neighbourhoods.

This thesis seeks to highlight the aging scenario in Sham Shui Po, a working-class district, and explore its potentials for aging-in-place. In the 1950s and 1960s, Shum Shui Po flourished as a workers’ paradise when the manufacturing industry boomed. Composite buildings rose robustly to fulfil the housing and economic development needs. Built for the blue collar, composite buildings up to 9 storey can be built without lifts and open space around.

The development neglected the aging body and marginalized the old, the patients and the other bodies which cannot climb up the stairs. The elders have no choice but to leave their neighbourhoods when their physicality deteriorates.

The society not only confronts the aging wave of people but also the building stock. Rather than knocking them down and building new, taller buildings, there shall be an alternative to allow both the old residents and the buildings to stay in place as a piece of living heritage.

The thesis aims to discuss how the advance of automation is potentially changing the spaces of the cityscape. The future of mass displacement of jobs would create a polarized society which has not been seen before, the consequences will eventually affect the urban city. The belief in technology which will free human from work might be a catastrophe of mass displacement of jobs and polarize the society into two ends.

In the technological revolution, the advance of automation and A.I. are starting to replace human jobs. They are claimed to be diligent, accurate and can work 24/7. It is being estimated that 30% of the jobs will be replaced by automation in the 2030s and percentage will increase when the A.I. is more advance in the future, especially jobs with routine, repetitive and predictable works.

In the scenario of Hong Kong in 2065, automation is going to destroy the employment market. The income inequality is estimated to skyrocket. Where a small group of people (employers & investors of the company) are getting extremely wealthy, while the others are struggling to make a living.

The business districts will mostly be affected. The companies’ office area will shrink as the space for human workers is replaced by the A.I., the office space will become obsolete. The physicality of human space is being challenged by digital technology. The emptied office space will need to be redeveloped with new programs.

The thesis will speculate on the divided cities of future Hong Kong: the hedonistic city, the poverty city and the education city. The new model of education will become the mediator between the wealthy and the poor.
As time goes on, with the birth of new technology and transportation, commercial space needs to face change. My thesis is about trying to find an answer of the transforming commercial space.

With the development of the Internet economy, many traditional industries have been impacted, and the traditional commercial model is also facing huge pressure, especially in mainland China. More and more traditional malls are facing the problem of vacancy. The main commercial space has shifted into XL size with large volumes and massive structures, but now it tends to be abandoned. The transformation and reform of the traditional shopping space is inevitable.

At the same time, the absence of circular economy is also a very serious problem in China. Statistics show that, more than 50 million tons of old clothes will be produced in China every year, and the utilization rate of old clothes is only two million tons per year, less than 10%. Used goods recycling chaos is another serious phenomenon in China and around the world. Combining abandoned commercial space with recycling lines, two negative issues may bring a positive result.

Thus, I try to explore a new shopping system. It is no longer just a space for selling goods, but more likely to be shaped into a place where people can obtain unique consumption experience and provide a space for multiple experiences and communication. Most importantly, it can be an important part of the circular economy. At the same time, it has high-tech cloud services to support the operation of the whole system.
The project stems from the problem that the gap between the rich and the poor is too large in the current society and the poor are losing their opportunities to change their lives. The film Parasite is a brutal portrayal of class problems: the poor family of four is crammed into a narrow basement, while the rich have modern villas designed by famous architects with luxurious materials. "Low social mobility" prevents people from accumulating wealth through asset appreciation and other means like before. It is hard for them to get a better life simply through their own efforts.

There are three reasons for this serious problem: education, technology innovation and city transformation. With the renewal of the city, business model changed, and the old individual business mode was replaced by the large shopping malls mode controlled by capitalists. High-end malls fill the city, while the lower classes lose their places to live. Before, these people could start making money by renting a piece of land to build their own shops. Now, they have to leave the city because they cannot afford the high rent. When the poor are forced to leave the cities, they lose the opportunity to make money, thus the gap between the rich and the poor will widen.

How to propose a new commercial model from the architect’s point of view that would protect the rights of the lower class people to continue to make living in the city and reform today’s increasingly homogeneous shopping malls is the key issue of this project.
The thesis explores the transformation happening on Chinese urban block from low-rise high-density to high-rise low-density, and what the spatial order has been changed from the public to the private. With the more isolated vertical growth space, there is less social connection happening in a singular urban block. The urban block has no longer functioned as a social device to maintain daily communication. Therefore, the thesis aims to stretch the spatial boundary and set up the spatial hierarchy between individual and collective under the trend of urban regeneration in the Chinese urban block to recall the missing social space.

Chinese urban block has gone through several periods: traditional courtyard house, Danwei under planned market, and market housing under open market. The spatial connection in the horizontal ground level which linked every unit directly in the past has been broken down to the isolated vertical core to relate units inside. The spatial order used to be transformed as private – semi-private – semi-public – public, while nowadays in the superblock, there is only a clear division between the private and the public.

Within understanding the changing typologies of the Chinese urban block, the thesis is searching for a new methodology to provide the social space that illustrates the new collective for today’s society. It proposes a clear understanding of spatial configuration that extracts from the traditional typologies.
The thesis attempts to explore the phygital constitution of political architecture in the post-digital context of Hong Kong. The Phygitl denotes the blending of digital experiences with the physical world. By utilising and experimenting various digital tools and workflows, the project synthesises digital and physical entities together encouraging discourses in the city.

A phygitl forum network engaging Hong Kong citizens to heterotopic spatial encounters of the city’s political future in the post-digital age is proposed. The scheme establishes new forms of political participation connecting multiple locations in the city to the main forum space through post-digital means. Taking the Rostra from the Roman Forum as reference, the design captivates the power of the citizens influencing the city’s policies and addresses the polarizing views in the city through the phygitl promotion of rational opinion expressions. The project with Augmented Reality, digital imaging and photogrammetry integrations generates and connects citizens’ discourse of social issues beyond certain constraints of time and space while advocates phygitl assemblies in the post-digital era. The proposal, situating at The Statue Square, Central, becomes the prototype of phygitl forums that can be further implemented across the city. The thesis questions the role of the digital in the field of architecture, with incorporating digital tools and techniques to bring the physical and the digital in equilibrium.

The phygitl architecture embraces the post-digital as well as it reinterprets, concretises, and amplifies true values and beliefs of Hong Kong citizens.
THE OTHER SHORE

The thesis interprets the monumental architecture in the context of the contemporary industrialization era of the Sino-Vietnamese border through the practice of specific venues and the expression of film, to discuss the symbolism and metaphor of architecture.

The project uses monumental architectural language to recognize the close connection between the two places, making it freely related to the continuous emotions of the two places in terms of economy, utilitarianism, abstraction, poetry, and surrealism. Using film expressions and architectural drawings to transcribe architectural interpretations of reality through spatial overlap and character montage settings.

The Other Shore refers to an element of Buddhism known as paramita (the “perfection” of a virtue). This “other shore” represents a state of enlightenment which people want to reach. People yearn for the life of the opposite bank of a river, and action is the connecting bridge, which symbolizes ties and a win-win situation in the future.

With the background of industrialization, the thesis “The Other Shore” reveals the conflicts and people’s desire for integration between China and Vietnam, separated by national border rivers. After the opening of the car bridge between Dongxing Town, China and Mongcai Town, Vietnam in 2018, the thesis is based on the current development trend of the two places, assuming that in order to further strengthen the vitality, the capitalists of the two countries proposed to add another pedestrian bridge to praise two places’ relationship and facilitate local people. In the future, this bridge will become the “career bridge” of Vietnamese labor and the “leisure bridge” of Chinese tourists.

INHABITING BETWEEN FLYOVERS

Modular prefabricated housing system on leftover site in between flyovers

PENG CHONG
Thesis Advisor: Fai Au

The thesis is based on the context of Hong Kong, where accommodates millions of permanent residents and a large amount of floating population.

The housing problem and lacking of public realm are critical problems in Hong Kong, which are the starting point of the thesis project. The contradiction between demands for habitable space and the limited developable areas is difficult to reconcile, resulting in a congested living condition. Hong Kong’s urban development policy has been promoting the privatization of public space. Although the total area of privately-owned public space is almost 1.5 times the size of Victoria Park, the public may not benefit from the uncertain publicity of these spaces.

The intention of my thesis project is to develop a modular prefabricated communal-housing system in Hong Kong, by using the leftover space in-between flyovers. The flyovers are very common and important urban objects in Hong Kong. There are more than 500 flyovers in the city. They are lubricating the highway system for the cars. But what else we could do to make use of these space occupied by the flyovers? As these is always a shortage of housing and public open space in Hong Kong. My proposal is going to use these spaces for housing development. More importantly, the new residential building inserted will serve as the communal space for surrounding communities. The primary goal is to improve the quality of the living space in Hong Kong.
I wish to establish a multifaceted complex, combining exhibition, living and working areas to promote the local comic culture which was once very popular in the 1960s. Starting off from Wan Chai, the cradle of the local comic industry, immigrants brought along skills and technique of producing comic scene from Shanghai after the Chinese post-war era in the 1940s, re-establishing their new lives in Wan Chai.

Instead of building new premises, I prefer my 'revitalizing complex' to be housed in two heritage buildings chosen in Wan Chai District – namely the Nam Koo Terrace and Woo Cheong pawn shop, both of which have remarkable historical values and fascinating stories behind. They well echo the comic industry!

The cultural heritage would be transformed into a piece of architecture where people could be able to recognise and memorise its glory, perhaps even extending to another crescendo! Through merging comics culture into heritage buildings, the architectural spaces would be crafted with the characteristics of the comic culture in different ages times, meandering with the stories behind the buildings and yet well demonstrating the design concepts behind.

This thesis investigates architectural decay in the geologic era—Anthropocene, a newly defined epoch characterized by the acceleration of environmental changes. The significance of the Anthropocene is that it sets a different trajectory for the Earth system, of which time and matter should be re-imagined. The concept of the Anthropocene presents a geological thinking both before and after humans and renders present day architecture as fossils of the future.

Time and climate are the most prominent forces that re-shape architecture as well as Earth’s surface. The architectural impacts brought by Anthropocene manifest the accelerated materiality. It challenges the way how an architect should deal with time. By crediting the inevitable decay as a continuation of the building process, this thesis would suggest ruination as an alternative way of architectural formation beyond an idealized homogeneous image and form. Architectural design will thus be executed as a process of ruination, emphasizing its decay rather than its creation. New durations and material re-combinations will be proposed for the fossilization of architecture.

The arctic is at the center of this emerging Anthropocene discourse, as dramatic consequences of climate change resulting from human activities are more pronounced in the Arctic. Hence, this thesis attempts to curate a reverse archaeological ruin through orchestrating the ruination process of the building in Longyearbyen, the northernmost settlement on the earth.
The thesis is to rethink the specificity of architectural form and function under transiently changing environment. It challenges both designing architecture for single specific function without vision of prospective transition, failing to react to transient changes, and designing architecture with universal flexibility, hard to strategically respond to the sharp needs in a short time with minimum effort, such as convention centre or stadium. Instead, the thesis indicates that certain types of architecture can be designed with specific duality, which can work as one role most of the time, and have the capability of constantly shifting its function to the other role with the clear foresight of the future transition.

The thesis begins with considering the active role played by architecture in addressing different kinds of possible emergency in highly developed cities. Disasters like pandemics, wars, climate crisis, food crisis create sharp demands in a short time and seriously affecting the social order and spatial organization in cities. By studying features derived from these demands and pairing with most matched programs in normal periods, the thesis proposes a new type of specific duality architectural solution to respond to these intermittent needs with strong resilience.

The contextual and methodological selection of the thesis is informed by the study of cases with the preliminary vision of expansion and transformation, such as Venice Hospital and Potteries Thinkbelt. Therefore, the design starts from choosing the waterfront space connecting the urban fabric to the vast space of the sea, and the infrastructure offering speed and mobility. Five waterfront spaces are chosen with various duality scenarios, among which parking/pandemic complex is further explored in detail level. The linear architectural and infrastructural strategy with clear vision of growth and transformation under specific scenario of normal period and pandemic period is developed with self-sufficient power plant and mechanical services. The thesis aims to promote this kind of system as a new benchmark for a more resilient city.
My thesis aims at exploring the possibility of balancing authoritarian power and freedom in the Greater Bay Area (GBA) by dedicating Kowloon as an autonomous zone.

The thesis speculates that towards 2047, as Hong Kong assimilates and disintegrates into the Greater Bay Area, HK Island will become the de-facto commercial centre of the GBA. The territory of the GBA becomes a spread-out pattern of residential areas. Workers adopt the suburban lifestyle, depending heavily on the High-Speed Rail to go to work.

Meanwhile in Kowloon, as individual buildings’ programs turn obsolete, the region’s economic potential is insignificant to the GBA. Inspired by Rem Koolhaas’ “Exodus”, in which a series of programs along a strip offers an alternative solution to London’s social conflicts, the thesis proposes the obsolete Kowloon to be the Voluntary Prison of Hongkongers in resistance. This region will be the antithesis of GBA: residents are living in materially bare lives while enjoying maximum mental freedom. Instead of taking jobs in the GBA’s capital-generating system, residents involve in daily rituals of religion, political expression and knowledge building.

The GBA government is also aware of the threats that may arise as aggressions and stress build up among workers. In exchange of concessions given to new residents of Kowloon, the government sends its agitated residents to a journey along Boundary Street, a reactivated border zone. This will be an Anti-Labour Camp, in which visitors can experience the livelihoods of the free residents. After fulfilling their mental desires, visitors are ready to return to the GBA, working whole-heartedly until their next aggression.

As Universal existence in China’s second and third-tier cities, urban villages are always surrounded by the products of rapidly developing cities with hard boundaries, seemingly in harmony. Some urban villages have historical buildings or unique agricultural industry. Combined with tourism development, they were able to realize their values and get renewal. However, in the center of some cities, a series of existing urban villages, which seem ordinary, have their unique values. There are certain things that can happen in different spaces, therefore there are specific things that architects can do for each urban village.

Changing the passive role of the village in the city into an active one is crucial to getting rid of the fate of being demolished and rebuilt. In the future, even at present, we need to think about health and cities in a very different way. Architects, as space negotiators and urban doctors, should be good at discovering urban diseases, and put forward a set of reasonable design methods, so as to make urban villages play their value while showing a radiating influence on society. Penetration is one of the solutions to organically break the boundary.

The cancer village in Hefei was taken as the object of practice to renovate the village itself. From the reprogramming, continuity, to broadening the sky as a concept, the section and the sketch scenarios are setting to improve the environment with a linear fabric. With the available treatment services and activity centers as the main program, the project explores ways to promote and separate the interaction between cancer kids and the villagers with specific architecture space, scale and experience. This may be a problem of urban renewal that will be encountered in the coming years, not only in China. And this could be a new typology in dealing with density.
The thesis aims to explore a new form of knowledge exchange through transforming a bus depot in Tuen Mun into a public forum. The conflicts between people created by different information received and the lack of communication, create a large social gap that is hard to be linked nowadays. Architecture may not be able to deal with political problems, yet it can provide a social interface for the public to discuss on an equal basis.

At the regional level, Tuen Mun becomes an important node between mainland and Hong Kong, a frontier facing Shenzhen. A civic society linkage is created through opening up conversations between cities in the Greater Bay Area. Making use of the site located at the centre of Tuen Mun, the local connection between the industrial and residential area in town, HK Island, Kowloon and Tuen Mun, is reinforced through waterway, railways and highways.

At the architectural level, BeUS depot aims to provide public services for the community. The public services layer includes classrooms and library that equip the citizens with knowledge enhancing the quality of the public forum. The vision of this thesis aims to open up knowledge for intense and constant debates on all issues. The Street of Knowledge will be changed constantly with different debating material, so as to equip the public with information for discussion. Consensus may not be made through the public forum, but at least an understanding can be achieved between oppositions and the citizens with shared information.

Hong Kong is currently experiencing the biggest political crisis since the Umbrella Movement in 2014. There is an increasing demand for penal spaces due to higher imprisonment rates and the need for a mall near the border of Shenzhen to cater for the increase of retail activity in border towns. Political unrests are often temporal, ranging from weeks to months, but they cause many permanent damages to the city and its people, which require a period of transition back to normal. Hybrid architecture focuses on contemporary concerns by marrying multiple ideas under a single infrastructure which highlights a diversity of experiences, programs, and people. This thesis juxtaposes two contrasting spatial types within a single building complex, the hybrid of a prison and a mall, and attempts to reconstruct a new prototype housing both typologies within it. This research is a re-assessment of hybrid buildings through the analysis of prison and mall separately, before combining them to create invigorating synergies between programs. The project seeks hybridization through fixed and interchangeable spaces, with disprogramming, the system allows the prison program to operate when penal spaces are required, later can then be partially or fully transformed into retail spaces when required. The essence of the project is to explore the relationship of program A and B how they eventually morph into each other overtime based on supply and demand.

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The former city wall and the city moat were once symbols of the city. They acted as a physical boundary to play the role of military defense, closed space and flood control, symbolizing the division of political class, economy, city and countryside. The city wall was in a large-scale demolition because of its confliction with the urban modernization and industrialization in China. The purpose of demolition is for better development, closer relationship between the inside and outside and elimination of the original boundary, but it does not mean that the particularity of this region and the city identity totally disappeared. Most cities rebuilt those areas as green belt and ring road, the boundary characteristic still exist.

In Jinan, it was in the same treatment but preserved the whole city moat trace with low utilization and single function. There is still a huge gap and separation between the two sides both geographically and psychologically, without any connection and experience from the boundary space to the fabric, the identity of the boundary area and city also gradually weakened.

Through the construction of experience and scenarios to make the discontinuities can be bridged by people's mind and generate a virtual image of the city is my thesis exploration. Through the notion of reconfiguring the time, distance, space and experience to make architecture as an intervention to convert and re-describe the sense of boundary in the cross-sectional and longitudinal direction. Architecture as segment intervention make the boundary from presence to absence for the whole city, which brings a similar kind of reading about the particularity of boundary brought by the missing city wall and celebrate this separation in a new architectural strategy to re-describe the identity of the city.

For a long time in the development of architecture design, most architects focus on human beings and assume people as the only user for a building. However, animals, food, machines and other elements can also be seen as 'users' in architectural design. In the 1700s, Immanuel Kant said that 'phenomenon comes from noumenon'. In his opinion, people stand on the central stage of the world according to observation. However, in the 21st century, Object-Oriented Ontology appeared and one of the representatives, Graham Harman, said the world of Object exists and human being is also a kind of Object and they are on the equal stage. The experience of People is one of the experiences of all the objects to the world, instead of absolute as Kant mentioned. Actually, when architects think people as the only user in architecture design, all attention may focus on people and may lose different angles to think about architecture. If architects assume other objects are also users during the design process, would it be possible to think from another angle and design more interesting and attractive space for people? Therefore, the thesis aims to create a user revolution for architecture design by creating a Chinese White Dolphin Protection and Visiting Centre as a testing site. It assumes both dolphins and people are 'user' and tries to use architecture to protect endangered animal. At the same time, it provides a new kind of experience for visitors and shows more possibilities about spatial experience as well as thinking of architecture.
MALLIFICATION
A retroactive system for dead malls in China

WU DIANZE
Thesis Advisor: Beisi Jia

China is facing mega-city development by building the largest cities in the world. By the end of 2019, three of the top ten largest cities in the world will come from China. With the development of such mega cities, China is also building adjacent operative infrastructural systems in these cities. Shopping malls, as a commercial typology, is being constructed to stimulate local business and consumerism. Seven out of the ten largest shopping malls in the world are already located in China by 2015, and the movement of mega-mall development is causing numerous problems in the urbanization process. In the second and third tier cities whose economy is based on the manufacturing industry, shopping malls are now suffering from vacancy rates and therefore experiencing enormous economic losses. To avoid the failure of the existing structure of shopping malls, it is important to redevelop / reconstruct the design, leasing, financing and management system of those obsolete shopping malls. Through the investigation and research of development of shopping malls and the roles that government, developers and local business play, this project will provide a prototype, a systematic methodology, a strategic suggestion to redevelop such “useless architecture typology” in the sub-urban area. The new mall system is trying to re-trace its social characteristics, and to introduce a micro urbanism strategy to the existing mall spaces.

REFUGE(E) FLOOR

WU CHI YU
Thesis Advisor: Tao Zhu

At this time of heightened governmental surveillance, monitoring devices are reshaping our urban narrative. The once-free streetscape is now occupied by unprecedented number of CCTVs, barricades, checkpoints and RFID readers after the waves of pro-democracy protests in 2019. The seemingly liberal internet has proven to be susceptible to the ruler nonetheless.

The thesis attempts to reimagine our city through an alternative ground - the refuge floor - as it shelters the digital refugees and political nomads. The uninhabited floor, required by building codes in Hong Kong and China, offers an injection point as a test pit for a digital white zone. As these floors connect to house undefined anarchist programmes, the project offers a horizontal datum across the city with new urbanistic implication. It also questions the top-down approach of conventional architectural process and the civicsness of urban design.
REPAIRING TANGHOU
Towards a new rural scenario in traditional mountain village under transformation

XIANG SHUYUAN
Thesis Advisor: Guillaume Othenin-Girard

Nowadays Tanghou village is slowly but surely disappearing, along with its architectural, rural, cultural and in-heritage, as well as critical physical and social-economic challenges due to drastic urban-rural migrations in the last few decades. Among various urgent issues on population, production, employment, and education, there are also critical issues on their physical environment including dilapidated buildings and the poor condition of community and public spaces, as well as a lack of awareness on heritage and environmental conservation.

A new way should be thought to repair the values that help the rural residents with better living that everyone deserves. Therefore, a “rethought” of an Idyllic Living/Learning attempt would be placed in Tanghou Village, among the mountains of East China. It is also an attempt to develop positions and methods of design in traditional mountain villages under transformation, and to define critical issues and strategies for architectural and urban design in the context of rural world.

“M+” URBANISM

WU XIALIN
Thesis Advisor: Ying Zhou

In recent decades, it has been an urban phenomenon that cities worldwide are building their “Cultural Centre”, namely the cluster of cultural infrastructures within a specific zone. Hong Kong is doing the same thing as the West Kowloon Cultural District is still under construction. My thesis starts from the reflection on this urban pattern and its design strategy behind. To question the monumentality and instrumentalism of the “Cultural Centre” model, I intend to decentralize it and reconfigure these cultural capitals back to the comprehensive urban environments. Meanwhile, artists and art groups in Hong Kong are always fighting for their spaces apart from the official museums. What is more, they have already operated a series of experimental art spaces rooted in the mixed neighborhoods. These artist-run spaces provide potentials for city life to intertwine with their art works. The way people encounter art pieces also comes down to a daily “drop-by” mode instead of a formal “visit”. Attracted by this mutual reaction, I want to further apply and develop this “alternative” art spaces into the neighborhoods outside the cultural districts. These art space interventions will challenge the traditional circulation of the museum typology and draw another scenario of the city’s cultural infrastructure.
RE:SCRIPT
THE ANTI-ELAB
MOVEMENT
Bottom-up placemaking in temporary autonomous Hong Kong

YANG TSUNHSIEN
Thesis Advisor: Tao Zhu

This thesis is a spatial analysis for the protests occurred during Anti-ELAB Movement in Hong Kong in 2019, in the aspect of the weak. It is not about creating new spatial orders or designing new architectures. It is to review the transformation of urban space and seek for new possibilities from the pattern of this bottom-up force.

Four scales of placemaking and four urban protest strategies are rationalised in this thesis. The four scales are the City, the Street, the Space and the Tools. People with tools reform the space; spaces in sequence reclaimed the streetscape; streetscapes create new political implication of the city; the political implication impacts on the people, and then creates another chain reaction of placemaking. The four urban protest strategies are Long March, Surround, Blossom, and Fortress. They are not just the urban patterns where conflicts and protests are distributed, but the spatial objectives that change throughout the protests as responses.

By breaking down the scales, one understands the hierarchy and process of such placemaking. By looking into the causes and outcomes of such temporary urban transformation, one could seek for possibility of re-scripting the movements. While the Linear March tries to proclaim political ideas more peacefully, the making of a Fortress is one of the last resorts out of people’s powerlessness. Throughout the Anti-ELAB movement, the people in Hong Kong are creating this script they see as a prescription to the city unintentionally. Through revealing the “re-scriptability” of this spatial political order, this thesis could open up dialogues for alternate prospects of this ongoing movement.

INTERPRET THE ‘MAGIC TOWERS’ AS EXPERIENCE-BASED ENTERTAINMENT INFRASTRUCTURE

XUE YONGHAO
Thesis Advisor: Géraldine Borio

The thesis started from a special ‘2020’ case which is very popular on the internet these years. It is a composite building that is famous as ‘magic tower’, because of the diversity of program and special spatial experience, which rely on the emergence of O2O (online to offline) commercial model. People can find whatever they interest and what may exist in their imaginations; it is better to say that when you walk into this building, you have escaped the reality outside the building.

I can see the potential prototype of the escapist vertical entertainment-topian in this case. But the repetitive space type of composite building is failing to meet the rapidly developing emerging industries which derive from O2O model. And what I try to do is to interpret this kind of ‘magic towers’ into a new prototype of experience-based entertainment infrastructure which can contain and give birth to all kinds of emerging industries, becoming the new magic place in mechanical city life.

Working on Lego Block, I try to find some new prototypes of different scales and scopes. And grouping of type represents grouping of program, which may give birth to new program. According to these typology attempts, I form a new frame to let these lego prototypes to grow with. The challenge is how to translate these lego units into reality.
Rule-based design is a method used in various disciplines. It is indeed changing the design progress of architecture, and various methods are offered by digital tools which give promising results and indeed have the potential to reform architecture discipline. Since the Chinese economic reform in the 1980s, there has been a rapid growth of population. The high demand for new schools to be built still continues today. The perception of school buildings from historical content continuously influences the design of schools today. In the last few decades, a similar style of school buildings was built all around China to meet the demand of education. However, while school teaching buildings become a typology which mainly focuses on its high-efficiency, the physical composition of architecture are usually similar, which is due to the obvious misrepresentation of certain specific certainties. Inspired by the book Précis of the Lectures on Architecture, this thesis project focuses on testing rule-based design tools at contemporary Chinese high school teaching buildings. It questions how typological features, specificity, constraints and external conditions could influence design decisions. Furthermore, how rule-based design could potentially test and formulate iterations which address on locality of architecture for school buildings. This project is also a critique of the style-driven architectural design which is heavily influenced by the perception of people from other realm. Physical appearance of a piece of architecture should not be controlled by the reading of its similarity to other buildings which functions the same way.
URBAN VILLAGE REDEFINITION
A strategy of public space reform intervention

ZENG JINGYAO
Thesis Advisor: Beisi Jia

Urban village is a specific space form in China due to the repaid urbanization process. In Shenzhen, an estimated over 70% of 16 million people live in urban village, for the reason that urban village has relatively low rent and living cost. Due to the informal construction and irregular planning, urban village has a series of problems that more and more contradictions between modern city and urban village are driven. Urban villages are facing demolition by the government due to the contradictions and the increasing land value, which cause millions of migrants losing their homes. This thesis criticizes this way of urban renewal and explores another possibility that the urban village can serve the city instead of its land value. A specific urban village in Shenzhen CBD is chosen as an experimental site. The transportation is convenient which is easier for the interchangeability of insiders (tenants living in urban village to work) and outsiders (people coming to the village). This thesis aims to insert a new public system into this village to make it more suitable for living and for other people coming in for activities, making its unique brand like the Dafen Village in Shenzhen who had its brand for oil-painting manufacture. The design strategy for the public system is reorganizing the road system within the village, taking away some buildings to dedensificate the ground floor area and rebuilding several high-rise buildings to compensate the demolished part. The compensation part will take the form of the existing figure of the urban village, making it a “vertical village” compared to the horizontal urban village.

ADAPTIVE REUSE OF SHANGHAI INDUSTRIAL HERITAGES

YIN ZIJUN
Thesis Advisor: Ying Zhou

In my thesis project, I would like to use architecture proposition to bring a specific old warehouse in Shanghai alive, proposing it as an example of adaptive reuse that does not only normatively commercialize, but offer an intermediary space among new offices and residential buildings that have emerged since the city’s rapid urban transition.

Shanghai is the birthplace of modern China’s industrialization. Transformations to industries attest to the political economic transitions of Shanghai, from the Concession period (from the 1850s to the late 1930s) to Stated-Owned Enterprise (SOE) reforms (starting in the 1990s). The industries that began in modernity experienced and manifested the rise and falls in the city.

With the establishment of Pudong Special Economic Zone, Shanghai’s Reform and Opening-up began to accelerate from the 1990s. In 1998, housing marketization accelerated with the marketization of land, that had previously under planned economies been allocated, also accelerated for development. The government and developers realized there were huge profits in land lease, so more and more industrial lands were commercialized, some illegally. Until 2000, thousands of factories were demolished and relocated from city center to the periphery.

The Dachuzhan warehouse 大倉庫 was built as a cotton warehouse. Built in 1902, the construction is composed of concrete and brick structure and its façade is built by blue brick wall. It is located on the western bank of the Huangpu river. The whole area used to be poor and full of shanty housing to accommodate the dock workers, but now the warehouse is surrounded by commercial and residential buildings, and a new office complex is under construction right next to it. The design proposal is to renovate the old warehouse into a flexible public space in order to relink the alienated neighborhoods.
EXPERIENCE, EMPLOYMENT AND EDUCATION

Explore the new model of rural renewal

ZHANG MENGJIE
Thesis Advisor: Wallace Chang

The site is located in a small village in the northern part of Jiangsu Province. It was once an important shipping port and had a well-developed economy. As a result of infrastructure construction in the following decades, traditional water transportation was gradually replaced and villages relied mainly on agricultural cultivation, with many young people choosing to work outside their hometown. As a result, the village is growing worse. The elderly and children constitute as the main component of the village population. How can such a small village be revived can be a problem. Turning the local natural resources into economic value and even enhancing local cultural value is what the thesis wants to achieve.

Further exploitation of the three most representative features of the village (developed fisheries, agriculture as the main mode to earn money in the village, traditional village life) to form three main ecological circles: fishing, agriculture, and rural life. These three circles are interconnected and can form new pathways. People from the city can come here to experience a different kind of rural life, and the villagers can have more opportunities to communicate with the outside world. The village will be given more educational meaning. Here, the villagers are more than farmers: they can be fishermen, performers, guides, lecturers, etc. When the number of jobs in the village increases and the sense of belonging in the village becomes stronger, more and more young people who go out to work will be willing to come back to build their hometowns.

In order to minimize damage to the current layout, an acupuncture-based approach for transformation is adopted in the design. Water will be a key element in the site.

GRADUAL AMARAVATI

Agricultural college as the mediator of urbanization

ZHANG JIE
Thesis Advisor: Nasrine Seraji

Amaravati was a proposed new capital in India. The construction of the city only lasted for two years, leaving a huge wasteland with half-finished canals, building foundations, infrastructures, temporary structures, and wastes on the ground level.

Based on the existing “abandoned landscape” in Amaravati, this project proposed a land-recovering-reusing and redeveloping system which is achieved by an agriculture college. It is also a ten-year schedule that allows different parties to work together to build the capital in another way.

Over ten years, the departments would gradually be built to join the land recovering-reusing and redeveloping system. And finally, after the education system is finished, it would feed the city. The syllabus of this college is designed according to the land issue. And different departments would work together to help local people to recover and reuse the land gradually.

On the urban scale, the college would work as a cloud-like mega-structure. It begins from the archipelagos, anchoring it, then gradually expands to the whole area, healing the land. And then, in 2030, it would gradually finish its functional transformation from land recovering to living.

Challenging the way of making a “new” city, this project proposes the “systematic urbanization”. In the proposal, urbanism is not only physically about “new” or “more”, but systematically about the shifting status of the land and the users: community structures, life patterns, etc.
In the context of policy of “Decentralization of the non-capital functions of Beijing”, how to redefine and reuse the retired market space

ZHANG XINYUE
Thesis Advisor: Roberto Requejo

In 2014, the Beijing government proposed the policy of “Decentralization of the non-capital function”. The specific measures of this policy are to clean up the low-end population and the low-end industries. After 2014, the government cleaned up and released many regional wholesale markets because these wholesale markets are part of Beijing’s low-end industry. My thesis mainly focuses on how to redefine and reuse these market spaces that face abolishment.

First of all, I collected and researched the existing market in Beijing that will be phased out, and then selected Dahongmen clothing wholesale market as my specific site. The Dahongmen area, as the largest clothing wholesale distribution center in northern China, is currently the government’s key project for relief. With the government’s transformation and upgrading of the region, most of the apparel wholesale markets have now become apparel retailers or administrative service centers and modern shopping malls. As the overall business form changed, the peddlers stationed and surviving at Dahongmen also lost their living space and faced be clean-up.

So my proposal is to build a pedestrian platform system as a new infrastructure to carry these informal businesses (peddlers) facing released, and connect the individual buildings in the Dahongmen area. I call this new infrastructure as “The bridge of peddlers”.

RURAL CITY
Agricultural infrastructure in Amaravati

ZHANG XIAOKE
Thesis Advisor: Guillaume Othenin-Girard

Speaking of rural, it is usually either the opposite of the city or a beautiful image that deviates from reality. With the process of urbanization, many rural areas face the possible future of being eliminated and entirely replaced by a modernist city grid. Is there another kind of relationship between rural and urban?

Amaravati was chosen as the new capital of Indian state Andhra Pradesh after its bifurcation. It was planned by Singaporean engineer consultancy with an administrative zone and major government buildings designed by Norman Foster. However, the project was suspended recently due to financial and political issues. The land that was once the most fertile farmland becomes completely barren with large-scale arterial roads laid out all around. Several buildings were already built and put into use. Adjacent to two major cities Vijayawada and Guntur, this site is facing the challenge about how to develop with all the conflicting elements.

As a response to the failed urbanization, my thesis looks at Amaravati through the lens of agriculture and infrastructure and tries to propose a new rural city that takes advantage of the incomplete construction. It discusses the possibility of linear settlement with a new agricultural system.

THE BRIDGE OF PEDDLERS
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THESIS 2020 DEPARTMENT OF ARCHITECTURE | THE UNIVERSITY OF HONG KONG
The issue of e-waste (electronic waste), a typical category of waste, has been concealed from the public for decades. Guiyu, a county in Guangdong China, the destination of e-waste, is one of the largest e-waste disassembling centers all around the world. It used to be thousands of home workshops processing the e-waste recycling from the 1980s which caused huge pollution on the local environment. In 2017, a giant, centralized factory was set up by the government for e-waste recycling and replacing the home workshops to prevent pollution problems caused by e-waste disassembling. Family workers and employers are forced to move into a factory with simply combining as companies. However, the one-cutting policy of centralized factory has also caused some social problems such as low profit and industry loss.

The thesis criticizes that the one-cutting policy only focuses on the current problems but not the fundamental problems and lacks developmental strategy. It seeks to re-image the local government to put forward a different type of factory zone in 2017 that can utilize the current home workshops and factories to initialize a new type of e-waste recycling system, which creates minimized influence on the environment and brings more profit to the local. With further development, I hope the factory zone can be a trigger that will attract more workers, even though entrepreneurs come into the field of e-waste recycling to make their livings. The factory may even work as an education or exhibition institution to make the public know more about e-waste.

I hope this strategy of “town factory” in a macro scope can also be applied in other counties where local industries in thousands of towns around China are in need for upgrade.

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For a long time, the design of maps and scenes is the soul of a video game, which should be well integrated with the aesthetic style and unique game mechanics.

The thesis attempts to create a place where you experience a series of fantastic game maps from the perspective of game characters. The product works both as an assemblage of several game maps in the virtual world and a video game theme park which can be experienced in the reality. By architecturally crafting fictional game maps into a new, innovative and didactic entertainment architecture, visitors will be attracted and engaged in a spatial sequence and experience typical games sorted by game mechanics and history timeline.

In this thesis, the student analysed several best-selling video games of all times and exerted 26 typical game maps prototypes from them. The game map alphabet will be used as the basic vocabularies for the final product.

Finally, the gametopia will be set up on the foundation of an abandoned factory in Chai Wan, Hong Kong. After reconstruction, the theme park, with other leisure facilities nearby, will form an interactive entertainment district, serving the residents and visitors. With the help of every visitor’s personal experience, the boundaries between virtual and reality will be broken again.
FOOD URBANISM
A Framework For Hong Kong’s Future Food System

ZHAO FANGYUAN
Thesis Advisor: Holger Kehne

The thesis examines a food-centric system that intertwines with economy, public life, climate and resource within the busy metropolis, which is considered as one of the world’s most “food-vulnerable” places. Hong Kong prides itself as a food paradise, however, it imports 90% of its food from other countries. Daisy Tam from Hong Kong Baptist University voiced the risk that “Hong Kong’s over-reliance on imports exposes the city to global commodity disruptions and price fluctuations.”

As the metropolis continues to adapt itself to satisfy the growing demand of the city, it is urgent to review our urban food system from social, economic, political and environmental aspects. This thesis tries to think in a systematic way to examine the complex relationship between urban development and food system in Hong Kong and what kind of role does an architect take in this interdisciplinary issue. It criticizes the government viewing food system management as a matter of foreign and rural problem and treating it independently from urban management. The project tries to propose and visualize a strategic framework for future food system. Central is chosen as a testbed. As a front window of Hong Kong, it will become a catalyst to demonstrate the potential of a new food system and challenge the existing outdated urban planning. Once food in the city is recognized neither as an independent item nor as a matter of self-indulgent lifestyle, but as a dense network of activities and organizations with social, economic and environmental consequences, we can begin to take our first step in building a more secure, sustainable and resilient city.

SYMBOLIC VILLAGE
Under the context of “urban to rural” re-population

ZHENG SHUJIE
Thesis Advisor: Beisi Jia

Countryside is a regional complex with natural, social, and economic characteristics. It has multiple elements such as production, life, ecology, and traditional culture. It promotes mutual development and coexistence with cities and towns, and together constitutes the main space for human activities.

In recent years, many urban problems caused by China’s rapid urbanization have gradually emerged. Some people are focusing on the countryside, trying to explore new development modes. Rural tourism oriented by the government and developers is booming. Rural re-population becomes a trend and normalcy, hence rural homogenization and commercialization are inevitable. Under this context, the original elements are gradually missing and human habitat is turned into symbolic goods.

We advocate harmony between human beings and the nature, and we believe that the core of revitalizing the countryside is to revitalize the social order and belief system.

Thesis delves into the way that architects get involved in rural revitalization. Trying to put forward more sustainable and valuable development concepts for countryside through architects’ criticism and efforts.

Design proposes a dramatic system onto the specific common village, trying to turn it into an opening landscape museum. In order to protect those gradually missing elements in this village, we believe that the strategy of Land Art will help to emphasize the place spirits, while slight intervention is a good way to maintain the original collective memories. To a certain extent, the concept of symbolic village will also provide innovative ideas for the formulation of government policies.
The thesis is arguing about stitching the city context split by the railway in an efficient way and introducing people’s behavior by bottom-up observation. Due to the expansion of urban areas, the railway located in the suburbs is gradually becoming part of the city center. For safety reasons, the railway management set up barriers on both sides of the railway crossing the urban area, which made the railway become a huge crack separating the city, making the transportation between the two sides extremely inconvenient. Meanwhile, the railway and its protected areas across crowded urban areas occupy a large amount of valuable land resources. Residents on both sides of the railway face an acute shortage of public services, while the local government in Guangzhou is struggling to find free land to build public services.

The thesis takes an operating railway and urban space on both sides in Guangzhou as the research object, trying to explore the form, function and structure of the urban spatial space that can stitch the city context being split, and tries to use these connecting structures to be served as urban public service facilities, improving the image of railway protection facilities interface, meeting the needs of residents for a better life. The thesis proposed to bring up a linear prototype to apply to different sites, inserting different programs to meet local people’s needs in exact place by the technique of mapping people’s path and behavior.
Looking Back, Looking Forward

In reflecting upon the M.Arch design thesis production this semester—at a time of unprecedented disruption and uncertainty, both for Hong Kong and the world at large—I’m struck by the things that architecture can and cannot do. This is not meant in any pejorative sense; rather, it’s simply an acknowledgement that recent and ongoing events have conspired to remind us that life is inherently fragile, and our built environments can only do so much to shelter us from unpredictability.

The work featured here captures the collective struggle of our students in coming to terms with these realities and addressing them through fundamentally architectural questions of scale, site, material, and use, among many others. From where does architecture derive value if the economic systems upon which it depends deteriorate and risk collapse? To what extent does architecture’s permanence—a building’s ability to endure—have meaning if the political, social, and cultural conditions to which it contributes disappear? These are but two of the important if perhaps unanswerable questions captured in this year’s thesis work.

The architectural responses offered here include engagements with time and duration ranging from the microsecond to a century, jarring intersections between the real, the augmented, and the virtual, strange material juxtapositions involving plastic, wood, and concrete, and scalar oscillations between outsized, monumental ambition and self-effacing humility—sometimes in a single project. Each student has proposed a speculative intervention designed to produce a certain effect.

In doing so, they reflect the difficulties of taking a position in architecture and articulating it through the process of design.

As teachers, we aim to inspire students to challenge the status quo through acts of design and capitalize upon architecture’s powers of anticipation to imagine something new, and hopefully better. As inhabitants of the world, however, it’s easy to take architecture’s capabilities for granted. Ultimately, the work on display acknowledges that although there are indeed things that architecture cannot do, it nevertheless remains an architect’s responsibility to persevere and imagine new possibilities despite these constraints.

Dr. Cole Roskam
Thesis Coordinator, Fall 2019
Associate Professor, Department of Architecture