Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

Personal information	
Name	Zhihao Ruan
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Studio		
Name / Theme	Design of the Urban Fabric	
Main mentor	Gerdy Verschuure-Stuip	Landscape Architecture
Second mentor	Ellen van Bueren	Management in the Built Environment
Argumentation of choice of the studio	Understanding the **urban from** the perspective of **landscape** has always been my biggest interest in academic study. In previous urban projects, I used to divide the city into multiple subsystems for research and superposition using the "layer-cake" method, but I was puzzled by the lack of interaction between different layers in this method. Therefore, the studio, Design of the Urban Fabric offers me the opportunity to explore how a specific **Urban subsystem** interact with other systems, how **public space reflect** and **influence** the urban life, and finally shape the **urban form** flexibly. As the carrier of **urban life**, the public space weaves the urban form. In the increasingly developed and compact modern **mega-city**, the architectural space constantly expands itself in the **vertical** direction (Cabannes, Y.,2018), while the public space still seems to be attached to the horizontal ground. The main goal of this project is to explore the possibility of **three-dimensional** development of **public space network** in these compact cities, and through this network to bring high-rise residents back to urban life. Therefore, this studio is the most suitable one for my topic.	

Graduation project	
Title of the graduation project	**Revitalizing the urban life** Design a three-dimensional pubic space system in Mong Kok, Hong Kong, through serious gaming
Goal	
Location:	Mong Kok, Hong Kong, China
The posed problem,	With the process of urbanization and globalization, more and more **mega-cities** have emerged. They are important nodes of the **global network**, which bring together a large number of resources and people. Due to the huge geographical advantage, space shows great

	exchange value in these cities. Public space is constantly occupied and **commercialized** (Harvey, D., 2012), and urban life is gradually **fading** due to the lack of sufficient and supportive carrier. While in **Mong Kok**, Hong Kong, an area known for its shopping malls and markets, is also the most crowded district in the world, with only 0.6 square meters of public space per person, among the lowest levels in Hong Kong. The dense street system makes open space more occupied by cars, and residents have to compete with cars for space. However, in the existing public space, there are issues of **fragmentation**, low **accessibility** and weak **identification**. The public space is dominated by the government and enterprises, the power of residents presents an extreme imbalance in the decision-making process of space (Harvey, D., 2012). But meanwhile, to meet the living demands, lots of **informal spaces** are produced by people (Cabannes, Y.,2018). Those spaces in such compact city quickly occupied gaps between various spaces, presenting a **three-dimensional** development. In conclusion, the low quality **public space system** and the defects of the **public participation** mechanism eventually caused the **alienation** of urban life.
research questions and	How to design a **public system** with good quality, walkability and public participation to revitalize urban living in Mong Kok? This is further specified by the following sub-questions: 1. How to translate more space into public use in such a compact area? 2. How to construct a **network** to connect the fragmented public space and enhance the walkability of the area? 3. What is the **public participation** mechanism to empower the people **the right to the city** and balance the top-down and bottom-up approaches?
design assignment in which these result.	The final outcome will be designing a 3D public space system design of Mong Kok through the methods of serious gaming. The revitalization of urban life, not only requires the city to have a public space system with good quality, but also requires the real participation of residents in the decision-making of urban space, which can be transformed and

produced according to the changing needs. In order to achieve the design goal, I introduced the approach of serious game, aiming to create a board game in the project, and described different scenarios according to the results of the game. Therefore, the results of the project are made up of:

1. A **tool box**, to study the different ways in which existing Spaces are transformed into public Spaces. They are rated on different attributes and are used as game cards in the negotiation process.

2. The **main structure** of the three-dimensional public space system. The project evaluates different types of Spaces in the city and connects them to form the main structure of the public space, which also serves as the basic background for the game.

3. **Public participation** mechanism. This part hopes to identify different stakeholders in the space (game players) and develop negotiation mechanisms (game rules).
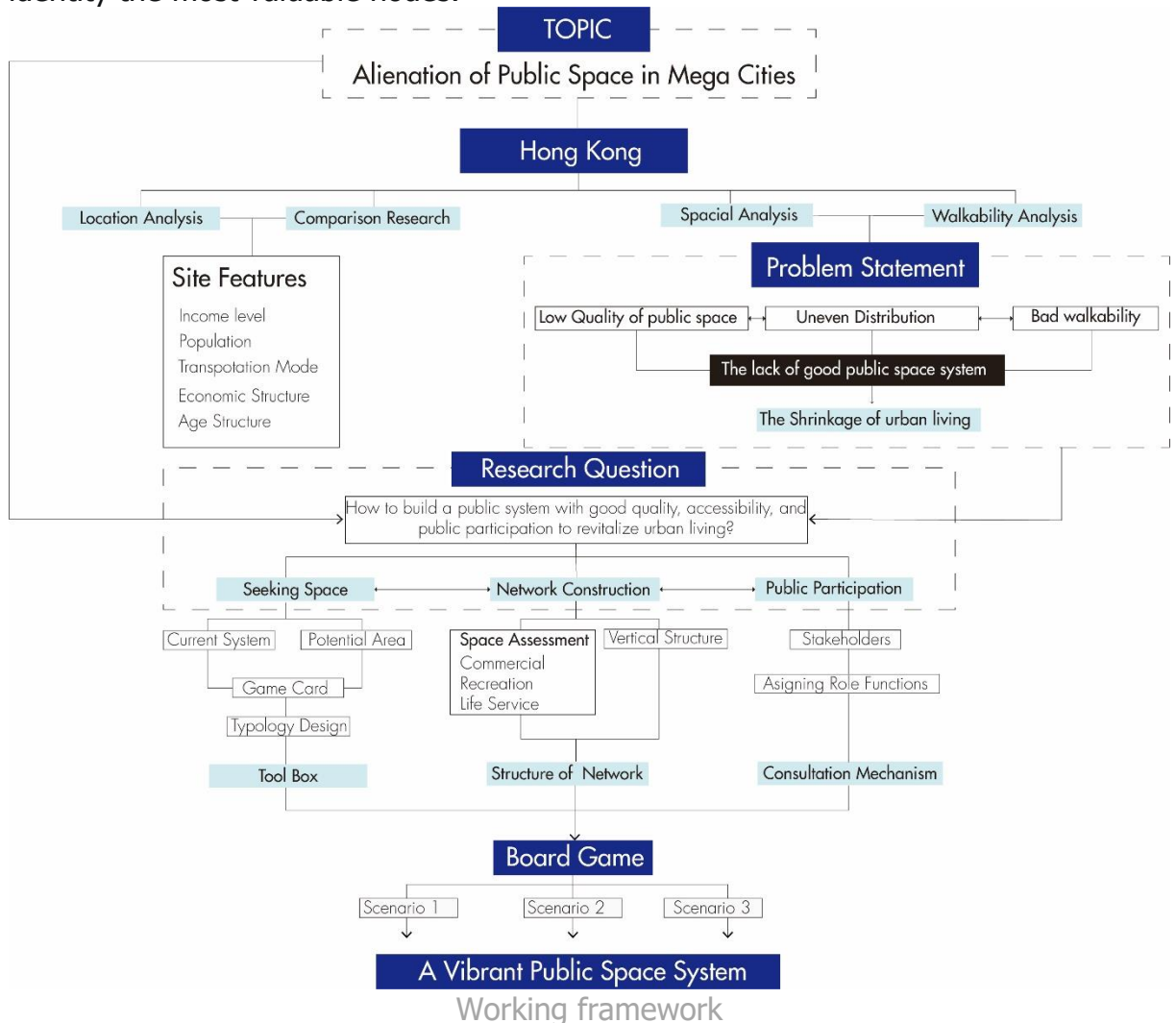
Process

Method description

In order to define the scope of the research and make the topic of the discussion more accurate, it is necessary to use the means of literature review to explain and define the professional terms involved.
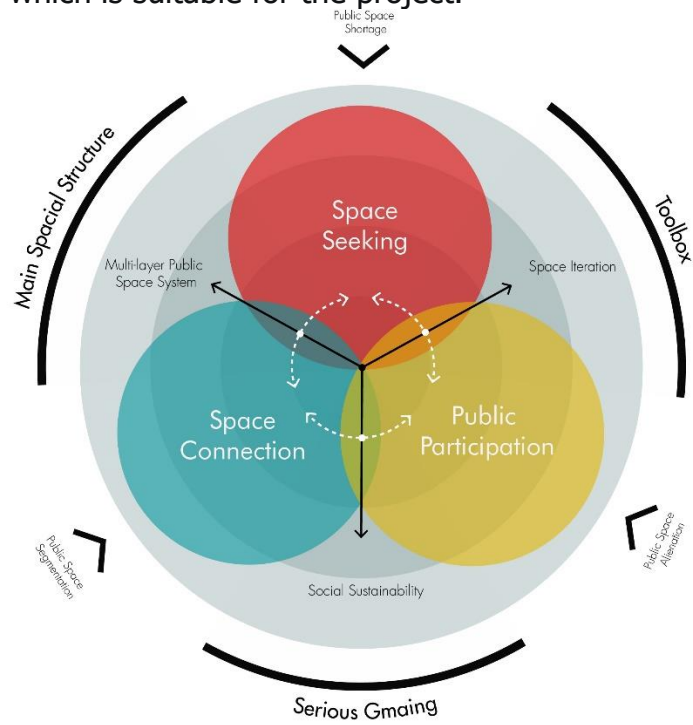
Secondly, the construction of public space network system first needs sufficient quantity to support, it demands to seek the space with possibilities in the compact city. This part will involve case study and typology research, with the goal of building a tool box applicable to Hong Kong's public space.

Then, the project needs to identify key nodes in the public space network. This part involves the classification of urban spaces and the evaluation of different spaces to identity the most valuable nodes.

TOPIC
Alienation of Public Space in Mega Cities

Hong Kong

Location Analysis   Comparison Research   Spacial Analysis   Walkability Analysis

Site Features
Income level
Population
Transpotation Mode
Economic Structure
Age Structure

Problem Statement
Low Quality of public space   Uneven Distribution   Bad walkability
The lack of good public space system
The Shrinkage of urban living

Research Question
How to build a public system with good quality, accessibility, and public participation to revitalize urban living?

Seeking Space   Network Construction   Public Participation

Current System   Potential Area   Space Assessment   Vertical Structure   Stakeholders
Commercial
Recreation
Life Service
Game Card   Asigning Role Functions
Typology Design
Tool Box   Structure of Network   Consultation Mechanism

Board Game
Scenario 1   Scenario 2   Scenario 3

A Vibrant Public Space System

Working framework

In order to improve public participation, and achieve self-iteration of the public space system under the vision of the right to the city (Poplin, A., 2011), the project uses the approach of serious gaming. This approach focuses on the cooperation and negotiation of different groups, encouraging people to gain their rights by positive

political actions, promoting mutual understanding between different groups. The game is constructed on the basis of case study, combined with the theory to design a game scheme which is suitable for the project.

Public Space Shortage

Main Spacial Structure

Toolbox

Space Seeking

Multi-layer Public Space System

Space Iteration

Space Connection

Public Participation

Public Space Segmentation

Public Space Alienation

Social Sustainability

Serious Gmaing

Theoritical Framework

Literature and general practical reference

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Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

   Landscape is a broad and complex concept. As a reflection of culture and ideas, it is shaped and in turn affects human society. As a complex product of human civilization, city also presents a special landscape. The superposition and synthesis of various systems build the contemporary city. Human beings have always tried to make the most rational decisions on cities according to disciplines. However, we have never fully mastered cities, their complexity and contingency have become an inseparable part of urban development. In this graduation project, I hope to explore the generative logic of this urban landscape from the perspective of open space, and understand the relationship between public space system and other urban systems. In the past, designers were considered to be the dominator of space, but faced with the complex and dynamic changes of the city, designers' fixed overlooking perspective can not cope with. Therefore, turning to the participants in this landscape is essential. Urban residents have the most direct perception of the city and always subtly and sensitively change the space to meet their own needs. Dynamic and contingency are no longer regarded as unstable elements, but participate in the construction of urban landscape as a dynamic change.

   Therefore, I chose this studio to explore the public space form in the modern high density giant cities, while also exploring the more flexible and elastic urban space generation logic. The four lenses highlighted in the master's program will also be integrated into this design to consider the future state of the site more comprehensively.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

   A network of three-dimensional public Spaces with high quality and walkability can help improve the living standards of the residents of the contemporary mega-city, provide qualified Spaces to carry urban life, and break the status quo of vertical development of residential Spaces while public Spaces are always confined to the ground. The network will also reshape the form of these cities, providing a more resilient and sustainable city. This pattern of public space also has a positive significance in the contemporary urban development of China, such as Beijing, Shanghai, Guangzhou and other compact mega-cities also have the potential to develop three-dimensional urban public space.

   The approach of using serious games is to bring public participation into urban decision-making in a more active and educational way. It is a combination of top-down and bottom-up approaches, and an attempt of the right to the city, with the potential to revitalize urban life and empower cities with resilience.