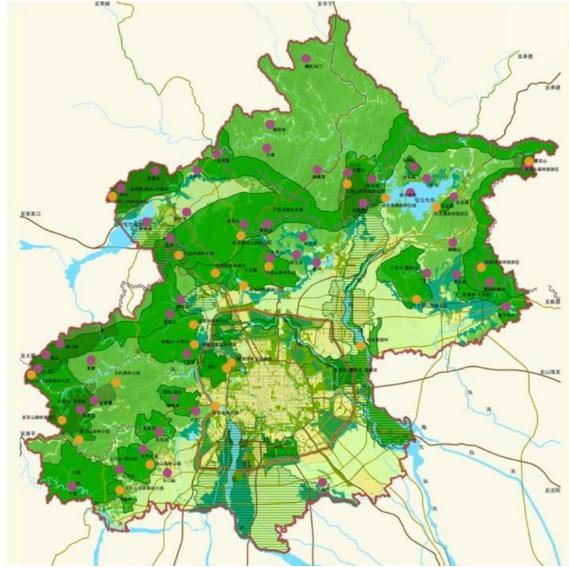
2021 Spring TSINGHUA & NUS Joint Studio
SHARING CITIES

# EPMA Urban Design Studio

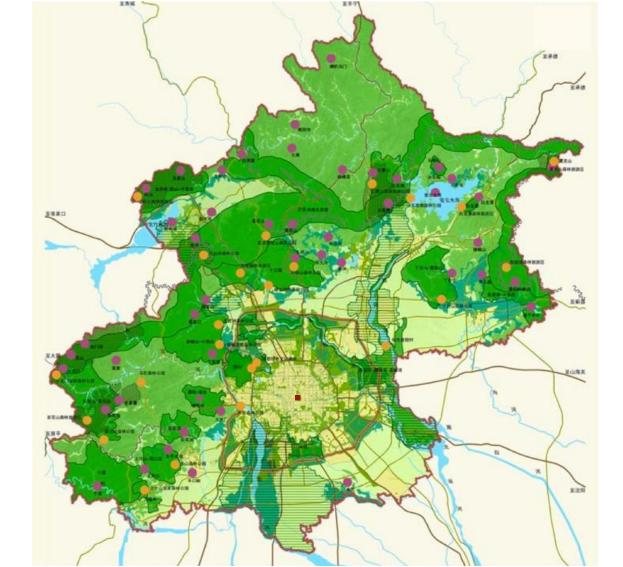
Beijing

2013-2020



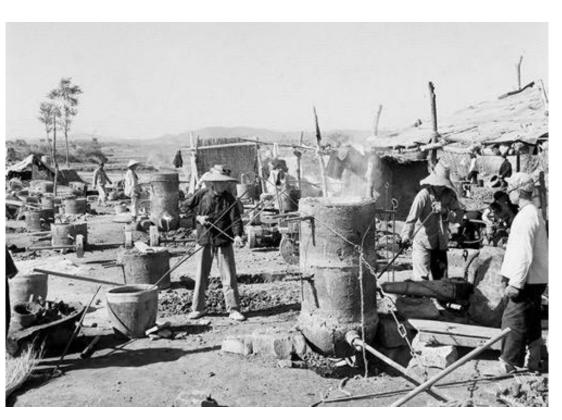
area: 16 000 km2 (20x Berlin) (20x Singapore) (ca 70x Amsterdam)

population: ca. 40 Milior

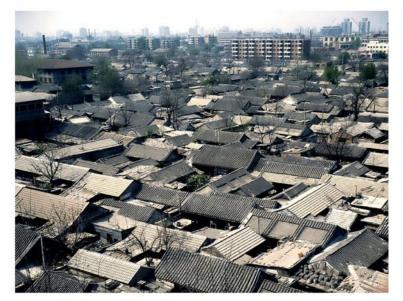


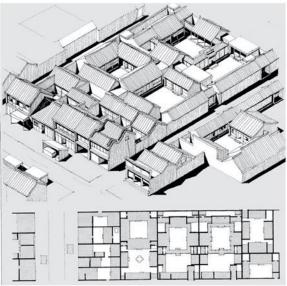


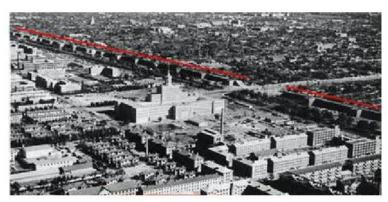


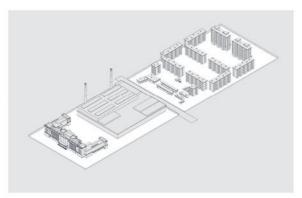












Mao: from 'hutong' to 'danwei'

2013 - Knowledge City

2017 - Sharing History

2014 - Water City

2015 - Healthy City

2019 - Sharing Countryside

2016 - Edge City

2020 - Sharing CBD

2014 2013 2016 2020

2015

2013 - Knowledge City

2014 - Water City

2015 - Healthy City

2016 - Edge City

2017 - Sharing History

2018 - Sharing Industry

2019 - Sharing Countryside

2020 - Sharing CBD

2021 – Sharing Smart City

# SHARING CITY 共享城市

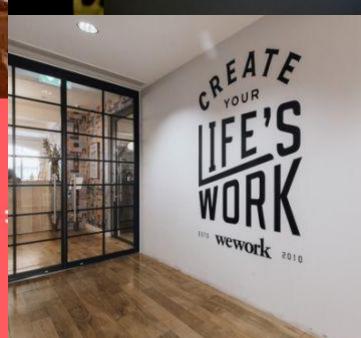
Sharing Lifestyle and Urban Regeneration 共享生活与城市更新





# UBER

EVERYONE'S PRIVATE DRIVER













NUS-Tsinghua Joint Studio 2017 | Workshop 01, Beijing











NUS-Tsinghua Joint Studio 2017 | Workshop 01, Beijing







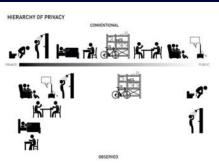


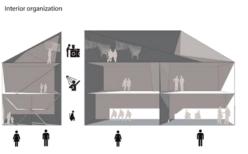




NUS-Tsinghua Joint Studio 2017 | Workshop 01, Beijing | Joint Design Charrette Review Panels

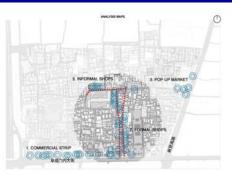






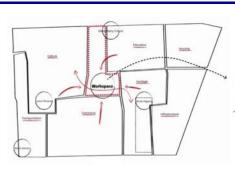




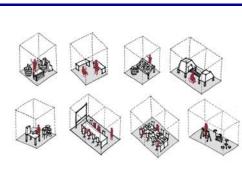


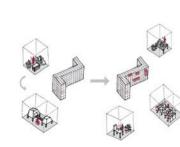














NUS-Tsinghua Joint Studio 2017 | Workshop 02, Singapore



















NUS-Tsinghua Joint Studio 2017 | Workshop 02, Singapore





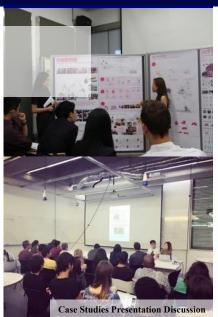






NUS-Tsinghua Joint Studio 2017 | Workshop 02, Singapore















NUS-Tsinghua Joint Studio 2017 | Workshop 03, Beijing















NUS-Tsinghua Joint Studio 2017 | Workshop 03, Beijing















NUS-Tsinghua Joint Studio 2017 | Design week, Beijing

# 白埣弄再生计划 BAITASIREMADE







Profound impact of new concepts of for-profit sharing of basic everyday commodities can be widely observed across the world. It changes the ways we commute (bike- and car sharing), shop (alibaba' amazon) or work (co-working) and redefines our living (shared-housing, air-bnb), and learning (e.g. open-online courses edX and MOOC) experiences. It redefines the need for us to own everything we want to use.

The "Sharing Cities" studio aims to provide solutions to emerging concept of sharing. and responds to the idea of public space sharing and sustainable urban development from social, economic and humanitarian perspectives. The studio brief has been designed to discuss the idea of sharing in eight different themes; sharing housing, sharing workspace, sharing transportation, sharing education, sharing culture, sharing heritage, sharing commerce and sharing infrastructure. The National University of Singapore has selected two site; a site in the city center where the traditional Nyonya culture originates: Joochiat and a 'sub-urban' site where a railway station and residential life intersects: Jurong East.

For the work presented here, we used this starting point for an urban regeneration model; sharing the city. The design proposals are the outcome of a joint design research cooperation between National University of Singapore and Tsinghua University, regarding the topic of urban regeneration, with a specific focus on the influence of the sharring economy on urban development. The cooperation included an 8-week joint design research studio and three complementary workshops with seminars at the beginning, the middle and the end.

### 清华大学建筑 规划 景观设计教学丛书: SHARING CITIES 贵龄 [荷]和马町 张烨 张悦 陈德钦

**过重大产出版社** 

# SHARING CITIES



### We study sharing practices and we design shared spaces.

Sponsored by Ng Teng Fong Charitable Foundation (Hong Kong), NUS-Tsinghua Design Research Initiative for Sharing Cities (NT-DRISC) was jointly initiated by the Department of Architecture, National University of Singapore and the School of Architecture, Tsinghua University. The aim is to bring together scholars and students from the two top Asian architecture schools as well as experts and professionals having the same interests, exploring emerging space sharing practices and new dedicated typologies of shared spaces in the city.

With multi-disciplinary urban research expertise and excellence in design, we investigate on the spatial attributes of sharing practices and the economics, institutions, governance, and ethics of space sharing; develop insights on the conditions that the built environment of the city imposes on sharing practices and the transformation of urban spaces that sharing activities enable; and develop innovative design solutions that can encourage and promote meaningful sharing activities.

Initiated and presented by:





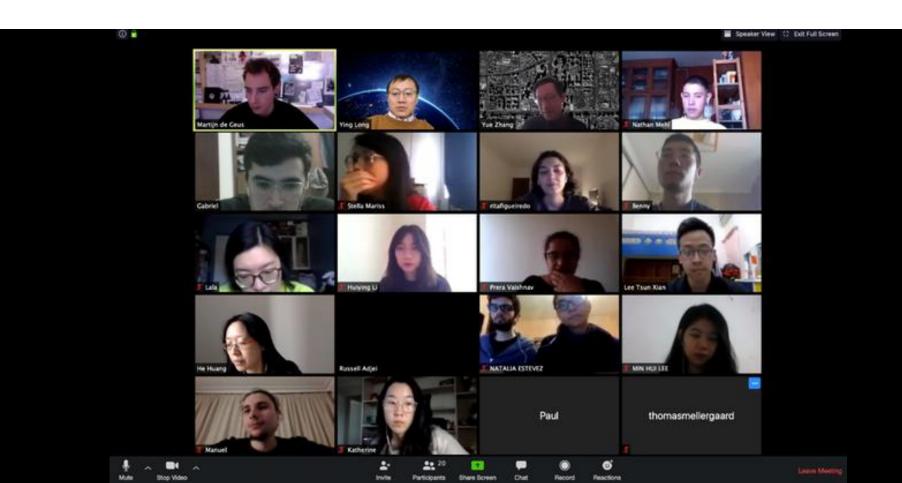
Sponsored by:



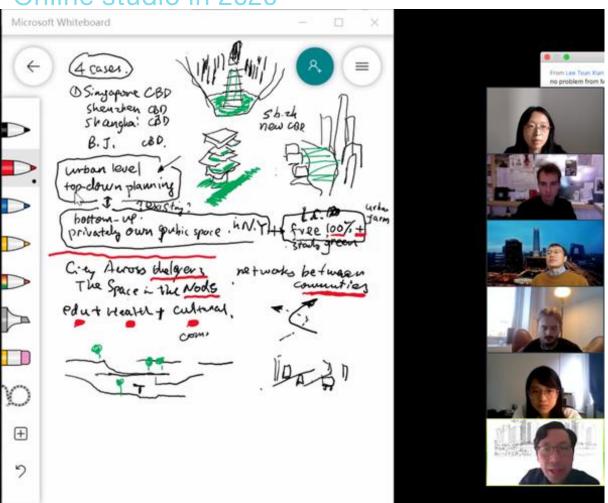
In a partnership with:



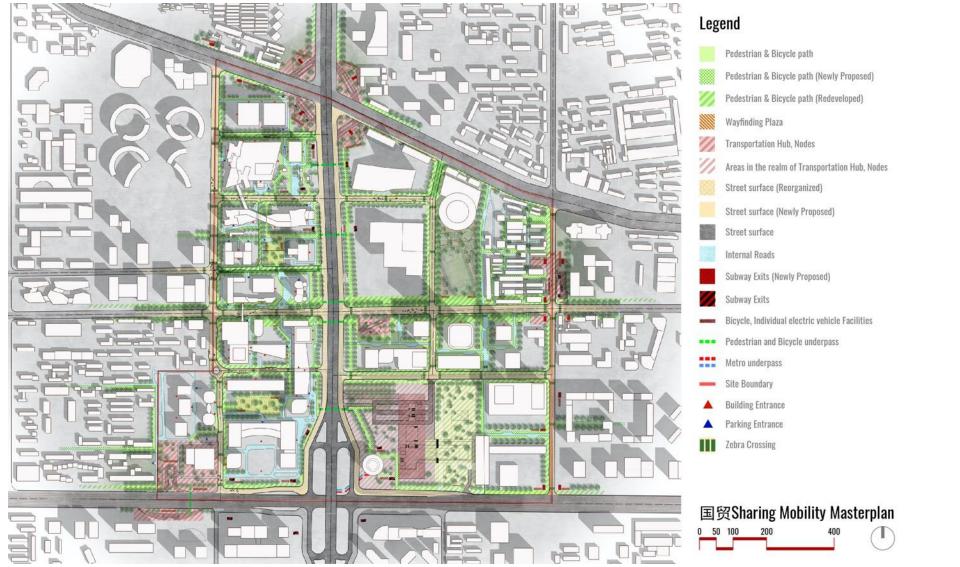
# Online studio in 2020



# Online studio in 2020











# Sharing cities website











### Green Infrastructure





# DESIGN STUDIOS

### NUS-Tsinghua Joint Studio: Sharing Cities | 2020



In the forth joint studio, the two schools both explore the possibility of bining sharing practice and shared space with the central city. In Singapore Pearl's Hill region, a diverse community at the edge of the downtown core, was selected as the site of NUS studio. Meanwhile, Tsinghus focused on a part of Guornao CBD surrounding the CCTV, which is the exact new downtown core of Berjing. As downtowns are high-density and high-value areas, whether sharing programs have potentials there was an issue discussed in both studios. furthermore, students applored how to design these programs and spaces to achieve better public good for the city centers.



### NUS-Tsinghua Joint Studio: Sharing Cities | 2019



In the third joint studio, the two schools placed different emphases on investigating respectively on how sharing practices can contribute to regenerating declining modernist architecture in the city and dilapidated villages. Two modernist landmarks in Singapore, namely People's Park Complex and Golden Mile Complex, were selected as the sites for design exploration of NUS studio, whereas the Tsinohua studio focused on four national-level povertystricken counties in the outskirt of Beiling. Maving such a striking contrast in both contest and approach is a new experiment of the toint design studio that aims to find out in which ways the knowledge and experience of designing sharing cities attained over the past two years can be transferred to improving the environment of rural villages, and to what extent the design for sharing in the urban and rural contexts can inform and even complement with each other



Okk the image for more details of NUS Studio

Details of Tsinghua Studio to be updated soon

### NUS-Tsinghua Joint Studio: Sharing Cities | 2018



The second joint studio focused on how emerging sharing practices can entribute to regenerating former industrial areas in the city, and what new typologies of shared spaces can be created to accommodate and facilitate these sharing practices. The design explorations of the two studios were carried out using the sites of of Tarjong Pagar Terminal, the iconic port of Singapore that is a stone's throw from the city's commercial centre and to be vacated in the next few years when its lease expires, and 751 district, an enormous former power plant that is now fast becoming a new art district in the city of Beijing respectively. The Systems Aportach developed by C. W. Churchman to address the complex social systems was employed to guide the design inquiry. Innovative ideas to transform both social and physical environments of industrial areas through intensive participation in various new sharing practice and platforms were developed and tested.



Click the image for more details of Tsinghua Studio

Click the image for more details of NUS Studio

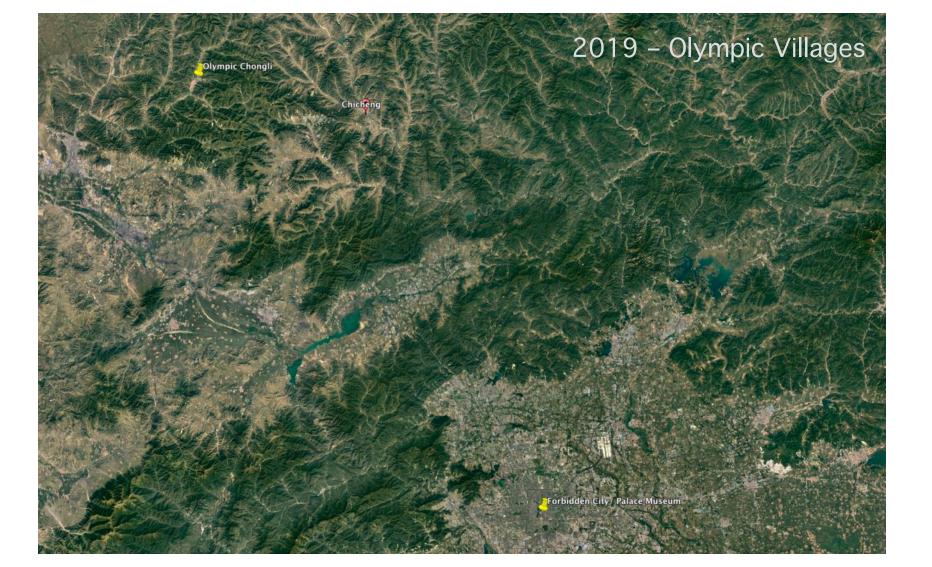
NUS-Tsinghua Joint Studio: Sharing Cities | 2017



sharing practices and their spatial manifestations. Design inquiries of both studios were carried out under a series of common themes, such as sharing infrastructure, sharing living, sharing commerce, sharing transport, sharing education, sharing heritage, etc. And a multitude of case studies in different countries around the world were conducted in details to aid the design exploration. The historic districts, namely Bai Ta Shield in Beiling and Joo Chial in Singapore, were selected as the sites for the two studios respectively. Their fine-grained urban fabric, rich architectural heritage, complex social and economic conditions, and mixed residents of different demographic statues in combination provide a fertile test bed for experimenting with new ideas of sharing and shared spaces in all different categories.

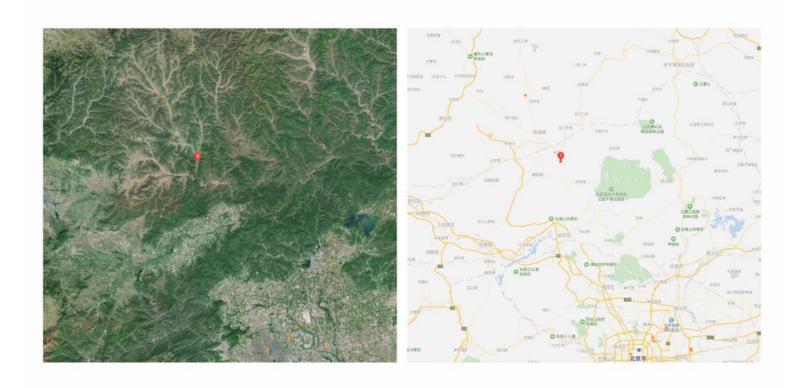
The first joint studio explored the topic of Sharing Cities with a broad scope, aiming for obtaining a comprehensive understanding of various emerging.







# 8\_样田乡上马山村

















#### Mountain Village

Lorenzo, Jack, Aleksandra, Otmane, Qingqing

#### DESIGN STUDIO 3 Project Year: 2019

#### Location: Wanshuiquan village

#### Students:

Lorenzo Maritan, Jack Shi, Aleksandra Platova, Otmane Outifa, Qingqing Hu

#### **Design Studio Tutors:** Yue Zhang, He Huang, Martijn de Geus

Key words: river, gathering spaces The idea is to transform this "exit way 2022 Olympics games village" to the Gateway Village. It can become the entrance of the region and of a bigger system.

TANG DINASTY WALL. As the first face of the village, the idea is to highlight the wall, it's history and materiality. The entrance is now a museum that will display the history of the village, a bus stop for the visitors and a gathering area for the villagers.

MAIN STREET. The street will represent the identity of the people living there and providing at the same time the new public function capable to welcoming people: restaurants, small shops, public spaces as well as services and facilities. For the village it will represent then the economical center.

GATEWAY HOUSE. The idea is to transform the fortress house to an indoor-welcoming place that will provide the basic facilities. The strategy is to use one plug-in that links street and courtyard, and one plug-in that connects users from the courtyard to the interior.

QUARRY FOREST. Two quarries have damaged the landscape at the back of the village. The idea is to recover that land and transfrom it in a productive forest. Using both quarries, the idea is to create a series of terraces that will stabilized the ground and at the same time will suit the site for grow plants.

These forest are also the beggining of a hiking route that will connect the village with the LOOKOUT VALLEY, the cave houses, the 1000 year old tree, the old village and hills that surround Duanmugou.







#### TANG DINASTY WALL

We purpose activate it by put museum beside the wall and created the relation of the museum with every side of it. for example, in front is the bus stop. At the back is small public gathering space and the side that next to the wall it's provides another perspective for the great wall.



#### MAIN STREET

It represents the first image of the village beyond the ancient wall. becoming the new core of the village for the touristic vision brought by the Olympics games. The street will represent the identity of the people living there and providing at the same time the new public function capable to welcoming people: restaurants, small shops, public spaces as well as services and facilities. For the village it will represent then the economical center.

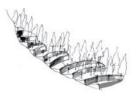
This can be possible opening some of the courtyards, using abandoned houses and secondary building to this new functions making all of them visible from the street. This new elements are activating the connection with the space from the outside to the inside.



The idea of the Gateway house is to transform the fortress house to an indoor-welcoming place that will provide the basic facilities. The strategy is to use one plag-in that links street and courtyard, and one plag-in that connects users from the courtyard to the interior. While at the same time both plag-ins are a linkage, they are also the facilities containers. The plag-ins design as a module which would hold facilities and gathering activities.



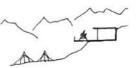
A forest park is designed within the two quarries. A single wall will be built, meandering through the quarries and reaching the top. It makes terraces in order to stabilize the ground and keep the water. An altar platform is located at the top, to have a Tajii session or to observe the stars. The whole park is connected by a pedestrian and planted path joining Duanmogou's main stream.

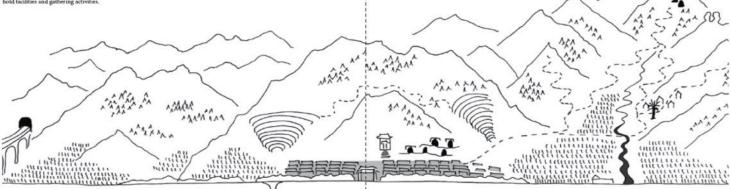


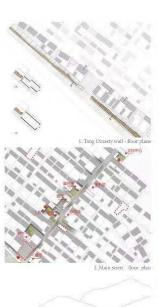
#### LOOKOUT VALLEY

QUARRY FOREST

A forest park is designed within the two quarties. A single wall will be built, meandering through the quarties and reaching the top. It makes terraces in order to stabilize the ground and keep the water. An altur platform is located at the top, to have a Taiji session or to observe the stars. The whole park is connected by a pedestrian and planted path joining Duanmogou's main stream.

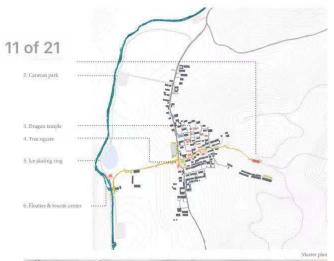


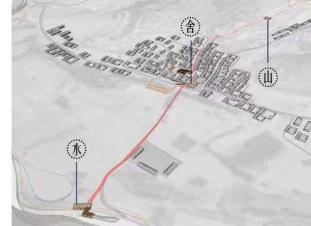












River - Home - Mountain / Master plan



2. Main street - floor plan



2. Main street life





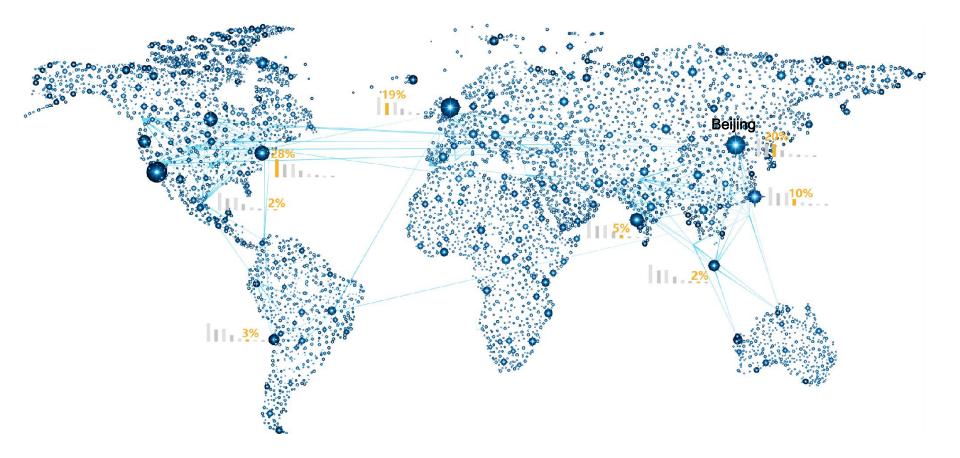
3. Gateway house - waste management system

11

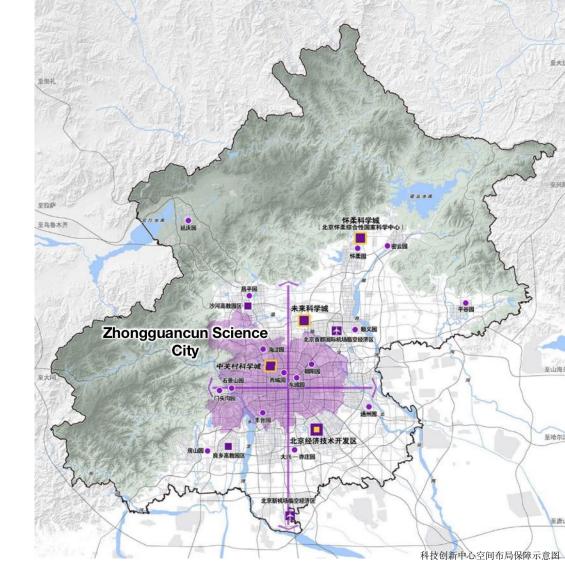
### 2021 TSINGHUA & NUS Joint Studio Sharing Future Smart City@Shangdi Hi-tech



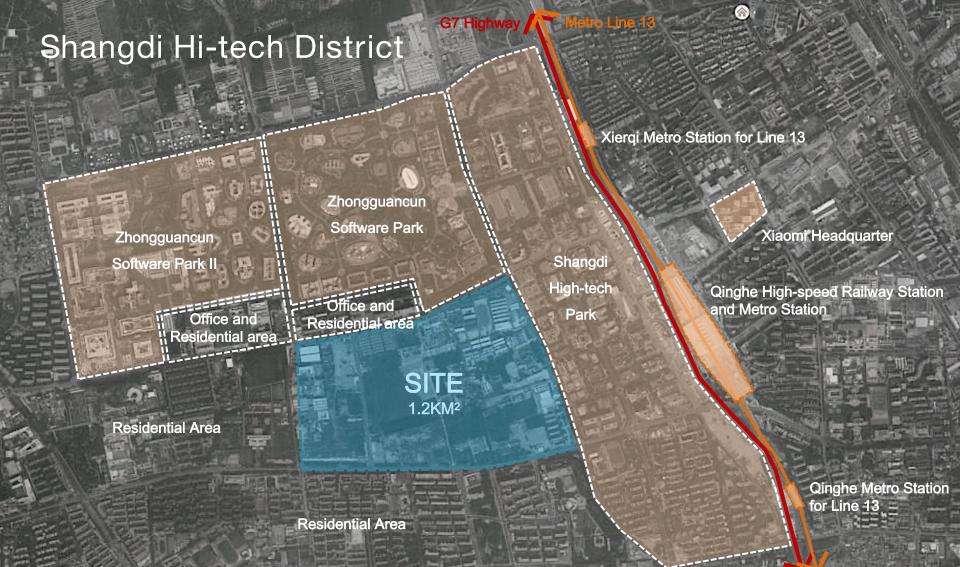
### Hi-tech industries all over the world



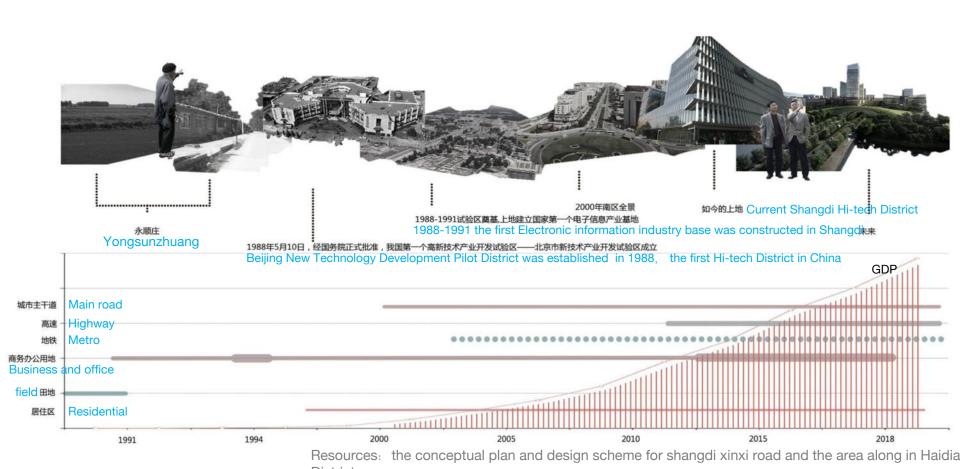
# Science and Innovation centers in Beijing City Master plan 2016-2035







### History of Shangdi Hi-tech District



History of Shangdi Hi-tech District



Yongsunzhuang 40 years



Shangdi Hi-tech District in 1990s



Beijing New Technology Development Pilot District was established in 1988, the first Hi-



Shangdi Hi-tech District in 2000



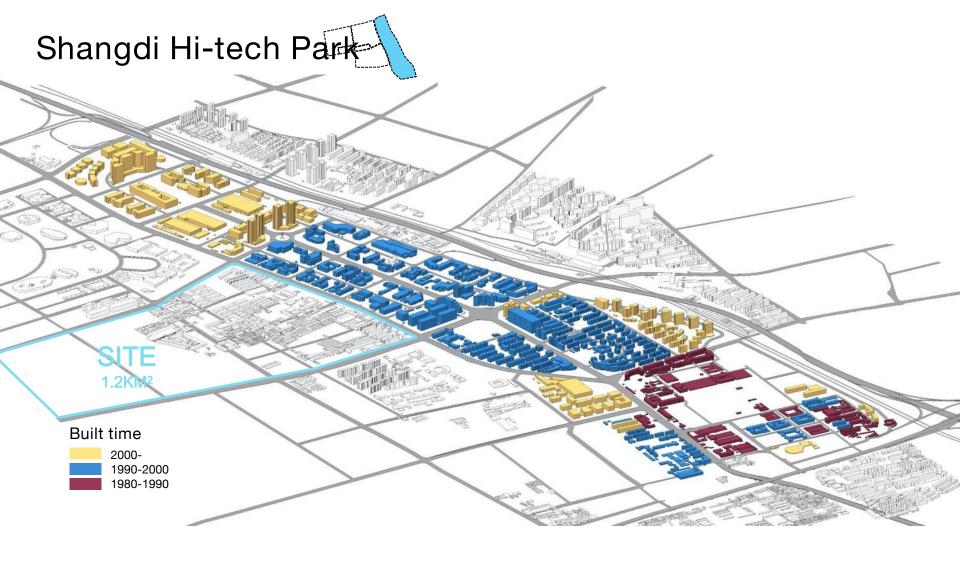
1988-1991 the first Electronic information industry base was constructed in Shangdi

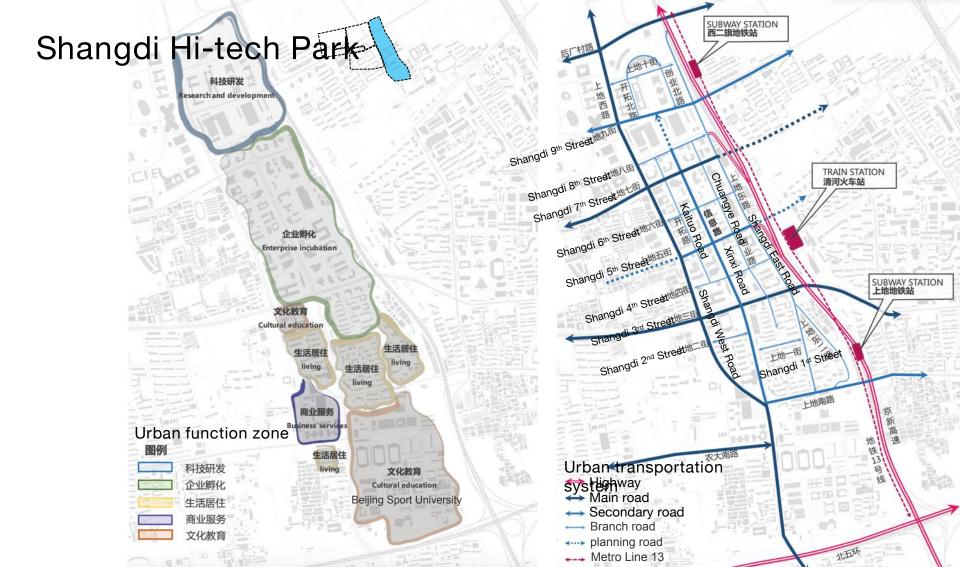


Shangdi Hi-tech District in 2020

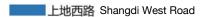


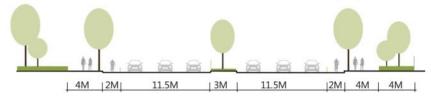




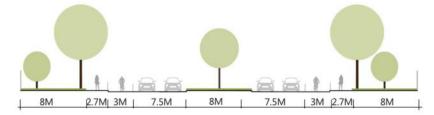


### Shangdi Hi-tech Park

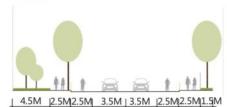




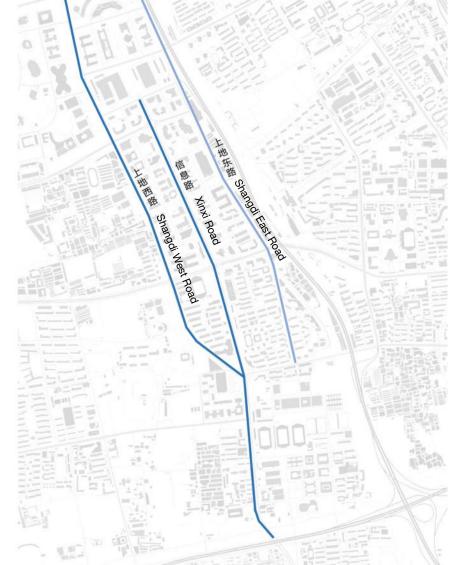
#### 信息路 Xinxi Road



#### 上地东路 Shangdi East Road



Road section

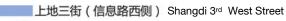


## Shangdi Hi-tech Park



Shangdi gth Street the 九街

Shangdi 7<sup>th</sup> Street地比值



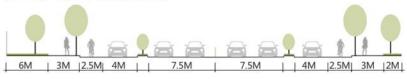


Shangdi 5<sup>th</sup> Street 地压街

Shangdi 3<sup>rd</sup> West Stre**et**地三街 (信息路西侧)

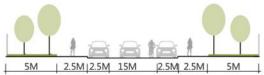
上地三街(信息路东侧) Shangdi 3<sup>rd</sup> East Street

上地三街(信息路东侧) Shangdi 3rd East Street



South Road地南路

上地五街 ——单向车道(一板两带) Shangdi 5th Street



Road section

Zhongguancun Software Park

Area: 119 Ha

Build area: 459570 m<sup>2</sup>

Far: 0.35

Built year: 2010

Output value: around 100 Billion RMB(\$ 15 Billion) per

 $KM^2$ 

### Floating islands in the urban

Building for information industries companies Incubator
3 停车楼 Parking building
4公寓 Apartment
5 餐饮服务 Restaurant
6 预留用地 Reserved area
7 市政 Municipal utilities
8 网球场 Tennis court
9 生态体育馆 Ecological Stadium
10 观察平台 Observation platform





### Zhongguancun Software Park







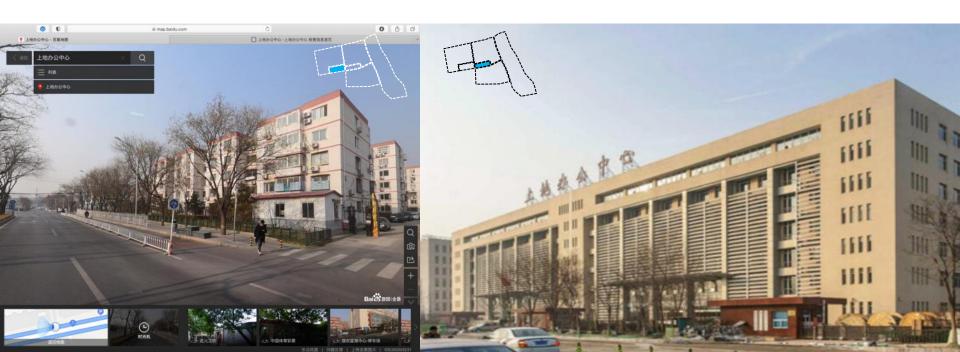
绿 化 带 Green belt Road 公共建筑区 Public function 中小型企业研发基地 Base for small/medium-sized company Public green space Base for medium/big-sized company

道路交通规划 /Planning of Road and Traffic

地块划分示意 /Land Partitioning



### Office and residential area



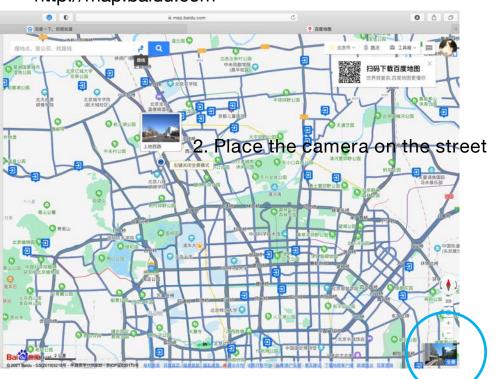


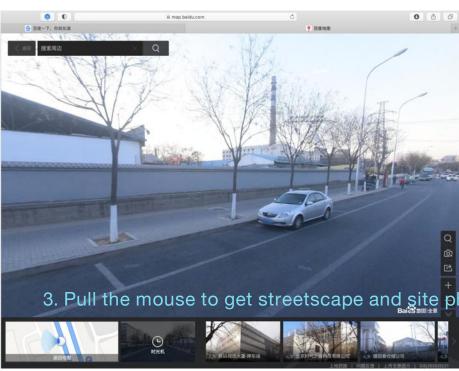


### Collecting site Information by panorama tool in Baidu

Map

http://map.baidu.com





1. Click the panorama tool

### **SHARING CITY**

Smart, future, shared lifestyle in science city EPMA Studio introduction + homework







### The following is required for each group:

- 1. Case study: a globe case of sharing city life with urban regeneration or smart city design case, and a local case of Hi-tech industries district case or sharing city case in your hometown (two cases each person);
- 2.General proposal of the whole site;
- 3. Detailed solution of the specific site.

### **Sharing cities cases:**

### **sharing living:**

- -Upgrading San Rafael-Unido (1st Global Holcim Awards Gold) by Silvia Soonets, Isabel Cecilia Pocaterra, Maria Ines Pocaterra/Proyectos Arqui 5, Urban Integration Project, Caracas, Venezuela
- · -Kozaza and Lobo, Korea
- -The Co-housing scheme of Copenhagen
- -Xiaomi YOU+ youth community in Beijing Suzhouqiao near North West Third Ring, China

### sharing working:

- -Wework in London South End, UK
- -The Hive in Singapore, Hong Kong, Bangkok
- -KoHub in Koh Lanta, Thailand
- -Yanjingli in Beijing Chaoyang District, China

### **Sharing commerce:**

- -Parkview Green, Beijing, China
- -Sino-Ocean Taikoo Li Chengdu, China

### **Sharing leisure:**

- · Millennium Park in Chicago, US
- Vessel in New York, US by Thomas Heatherwick
- -1000 trees, Shanghai, China by Thomas Heatherwick
- -The Playscape, Beijing, China

### sharing transportation:

- -Metro cable, Medellin, Columbia
- -Shared cycling scheme over a few decades in Copenhagen
- -Sweetch (sharing parking) in San Francisco, USA

### sharing infrastructure:

- -Urban Flood Protection Infrastructure (4th Global Holcim Awards Bronze) by BIG, New York City, USA
- -Urban Remediation and Civic Infrastructure Hub (3rd Global Holcim Awards Silver) by Alfredo Brillembourg, Hubert Klumpner/Urban Think Tank, São Paulo, Brazil
- -Marina Barrage, Singapore

### sharing service:

- Micro-Yuan'er (2016 Aga Khan Award for Architecture) by ZHANG Ke, Beijing, China
- - Madinat al Zahra Museum (2010 Aga Khan Award for Architecture) by Sobejano Architects S.L.P, Fuensanta Nieto & Enrique Sobejano, Cordoba, Spain
- Gaoligong Handcraft Paper Making Museum by HUA Li/ TAO Trace Architecture office, Yunan Province, China
- - Friendship Centre (2016 Aga Khan Award for Architecture) by Kashef Mahboob Chowdhury/Urbana, Gaibandha, Bangladesh

### **Smart cities/Future cities cases:**

- 1. Woven city, designed by BIG
- Masdar city (https://masdarcity.ae)
- Quayside project for Toronto Tomorrow (https://www.sidewalktoronto.ca)
- New Songdo City, designed by KPF (https://www.kpf.com/projects/new-songdo-city)
- Xiong'an New Area (<a href="http://english.xiongan.gov.cn">http://english.xiongan.gov.cn</a>)
- Chengdu Hi-tech Industries Development Zone competition 2020 (http://www.cdht.gov.cn/cdhtz/c142980/2020-09/28/content\_4de60bbeb07a4980a5960e8de040066a.shtml)



Plan by MAD



& Associates



Plan by Perry Clark Perry Architects



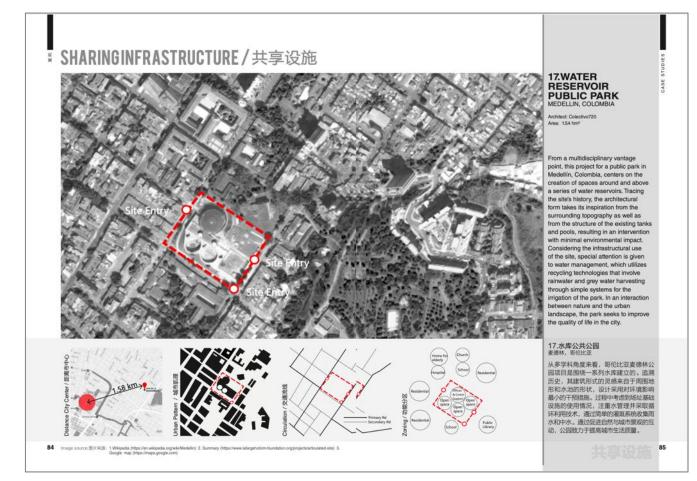
Plan by MVRDV

Plan by GMP



Chengdu Hi-tech Industries Development Zone competition 2020 (4.6KM<sup>2</sup>) Plan by OMA

Case study: 1. general information (information of city and population, brief introduction of the case, image of location, urban pattern, circulation, zoning, 1 page)



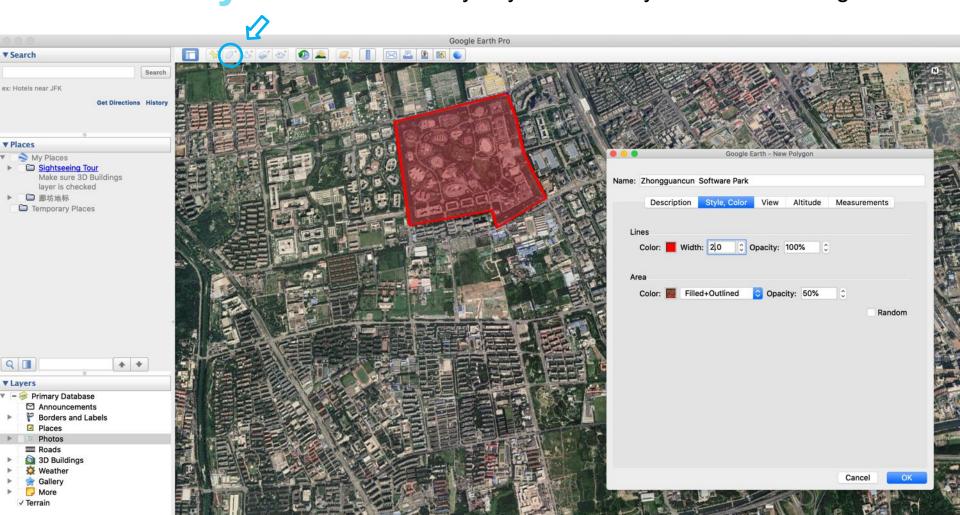
Template of Indesign file (fixed layout)

- Case study: 2. detailed information (image, photo, diagram, text, etc.. 1-2pages)
  - 3. Brief study of your case (600-1000 words)

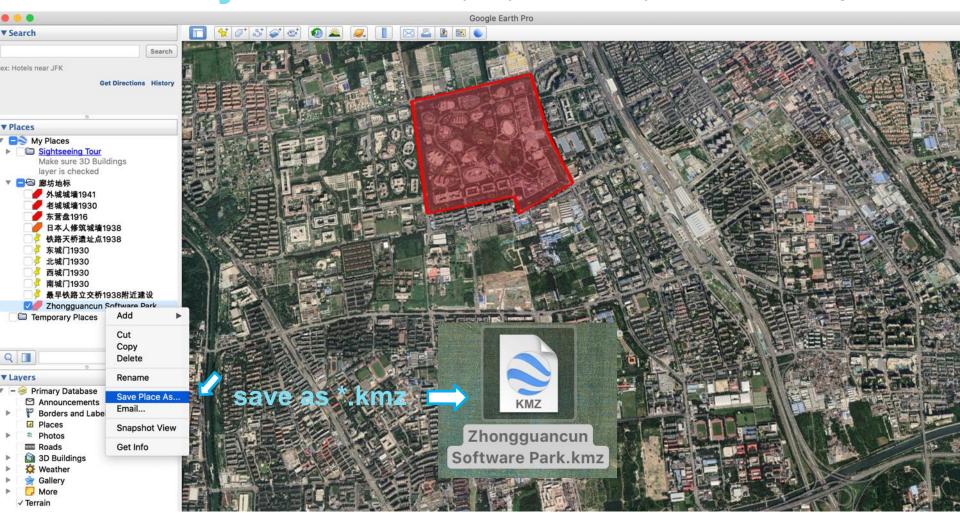


Template of Indesign file (free layout)

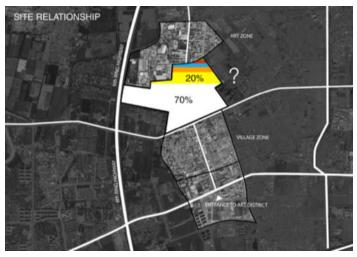
Case study: mark the boundary of your cases by \*.kmz file in Google earth

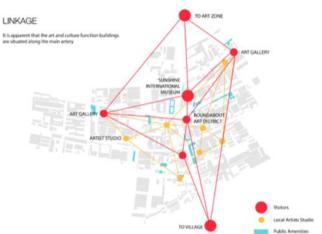


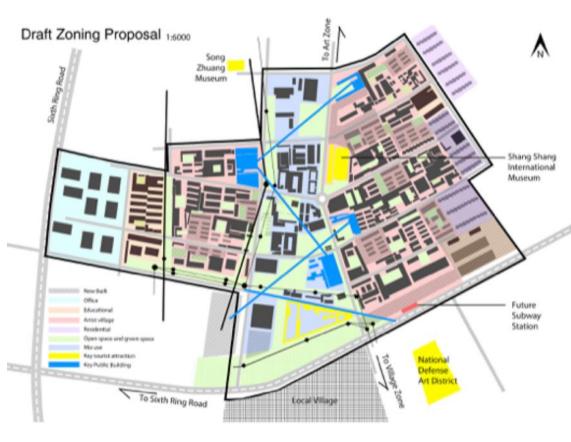
Case study: mark the boundary of your cases by \*.kmz file in Google Earth



### General proposal: system analysis and strategies for the whole site







Example: Edge City, 2016

Detailed Design: urban design of the specific site of the topic



2021 Spring TSINGHUA & NUS Joint Studio

# Happy New Year

