



SZ+

From Shanzhai City to Maker City

Inclusion of Migrants in Urban Redevelopment in Shenzhen

FROM SHANZHAI CITY TO MAKER CITY

Introduction
New Phenomenon
City Vision Change
Urban Planning in Social-Economic
Transformation
Urban Structure and Typology
Issues Behind Current Planning Sys-
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Problem Statement
Research Question
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Relevance

SHANZHAI CITY

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History of HQB
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Conditions for Emerging of Maker
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Conclusion

MAKER CITY 1.0

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From Shanzhai to Making
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Maker Spaces in Shenzhen
Conclusion

MAKER CITY 2.0

Definition
Research Area and Methods
Analysis
Objective and Vision
Stakeholder Analyse
Strategies
Conclusion

REFLECTION

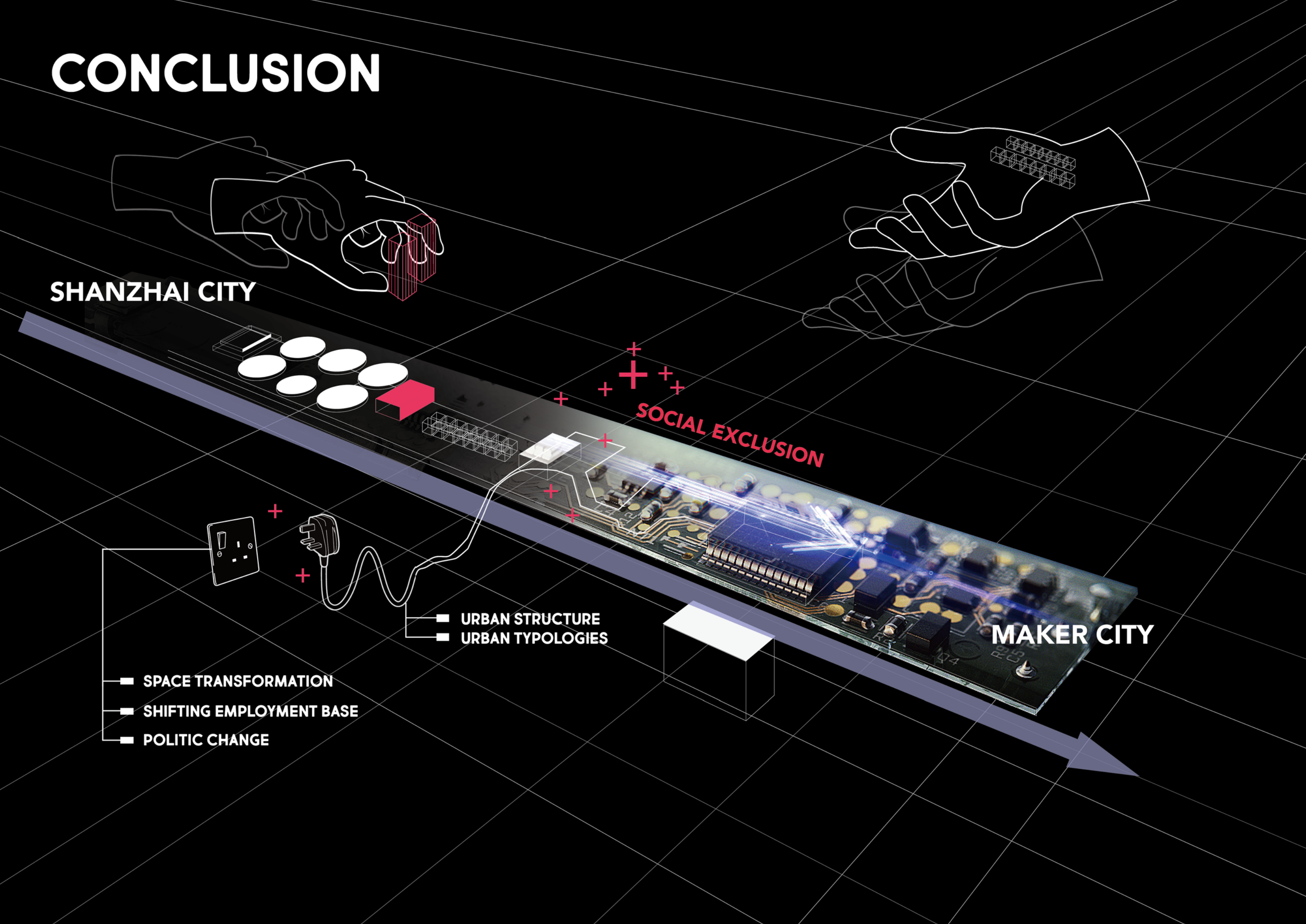
CONCLUSION

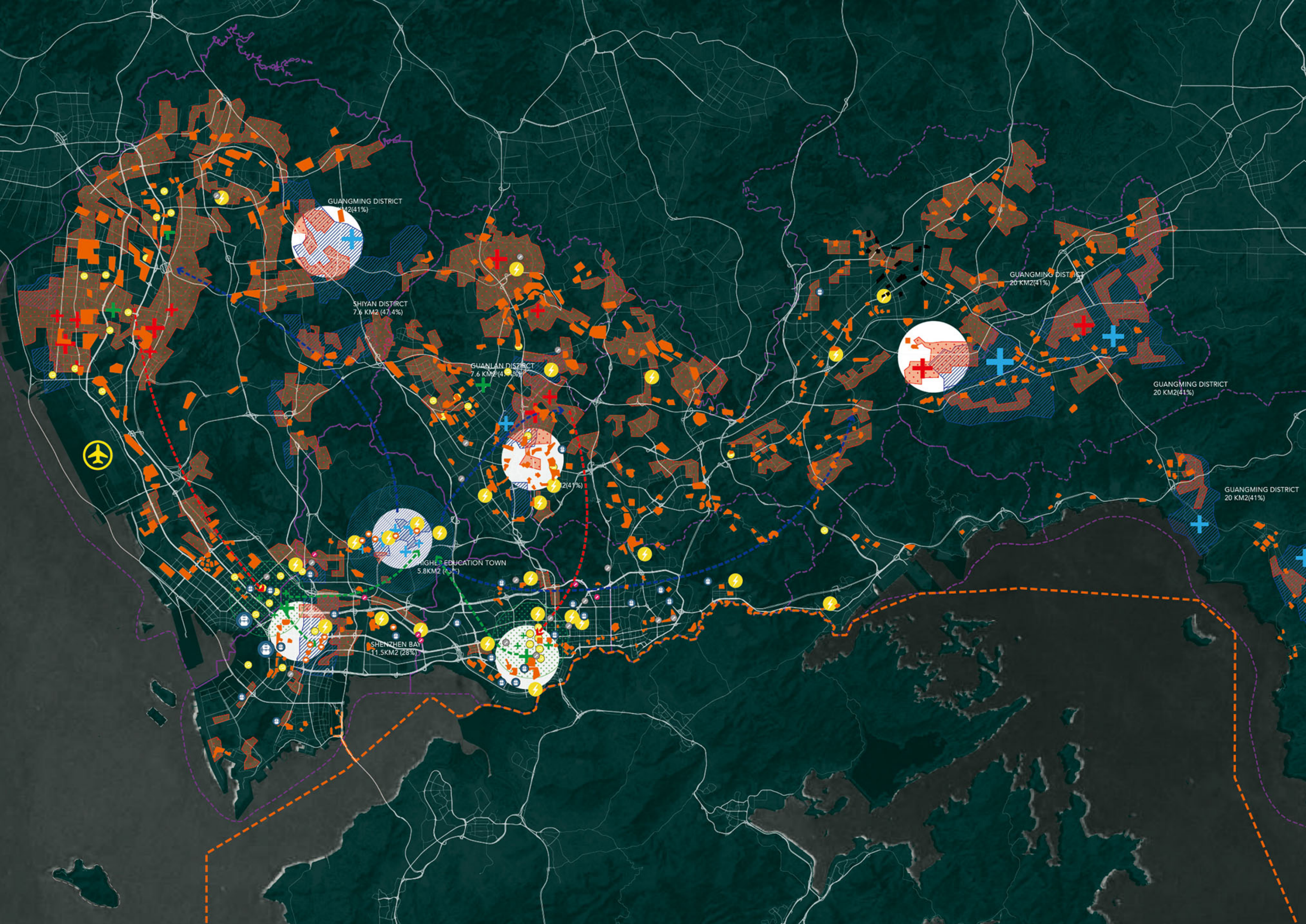
SHANZHAI CITY

SOCIAL EXCLUSION

MAKER CITY

- SPACE TRANSFORMATION
- SHIFTING EMPLOYMENT BASE
- POLITIC CHANGE
- URBAN STRUCTURE
- URBAN TYPOLOGIES







0 250 500 750 m

Show ▾

RESEARCH QUESTION

How to build a strategic design framework based on Maker Movement to revise the process from Shanzhai City to maker City thereby including rural migrants in urban redevelopment of Shenzhen?

+What are the conditions for emerging of Shanzhai movement in Huaqiangbei that could provide principles for fostering maker movement in urban redevelopment project? (SHANZHAI CITY)

+How could current maker movement be revised to meet demands of maker groups and bring new value? (MAKER CITY 1.0)

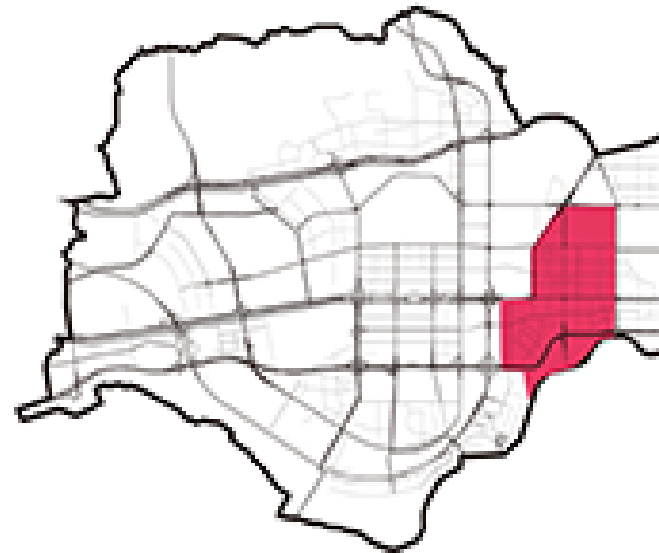
+How could maker movement be integrated for making a urban design framework to achieve inclusion of migrants in urban redevelopment? (MAKER 2.0)

KEY WORDS: STRATEGIC DESIGN FRAMEWORK, MAKER MOVEMENT, PROCESS,

PRINCIPLES

SHANZHAI CITY

1. What are the conditions for emerging of maker movement in Huaqiangbei?



LITERATURE REVIEW

INTERVIEW

"I saw HQB as a success of grassroots innovation by collective efforts and it is the outcome of communication between Shanzhai entrepreneurs and District/ Municipal Government."

+

SHANZHAI ENTREPRENEURS

+

POLITICS ——— SPATIAL

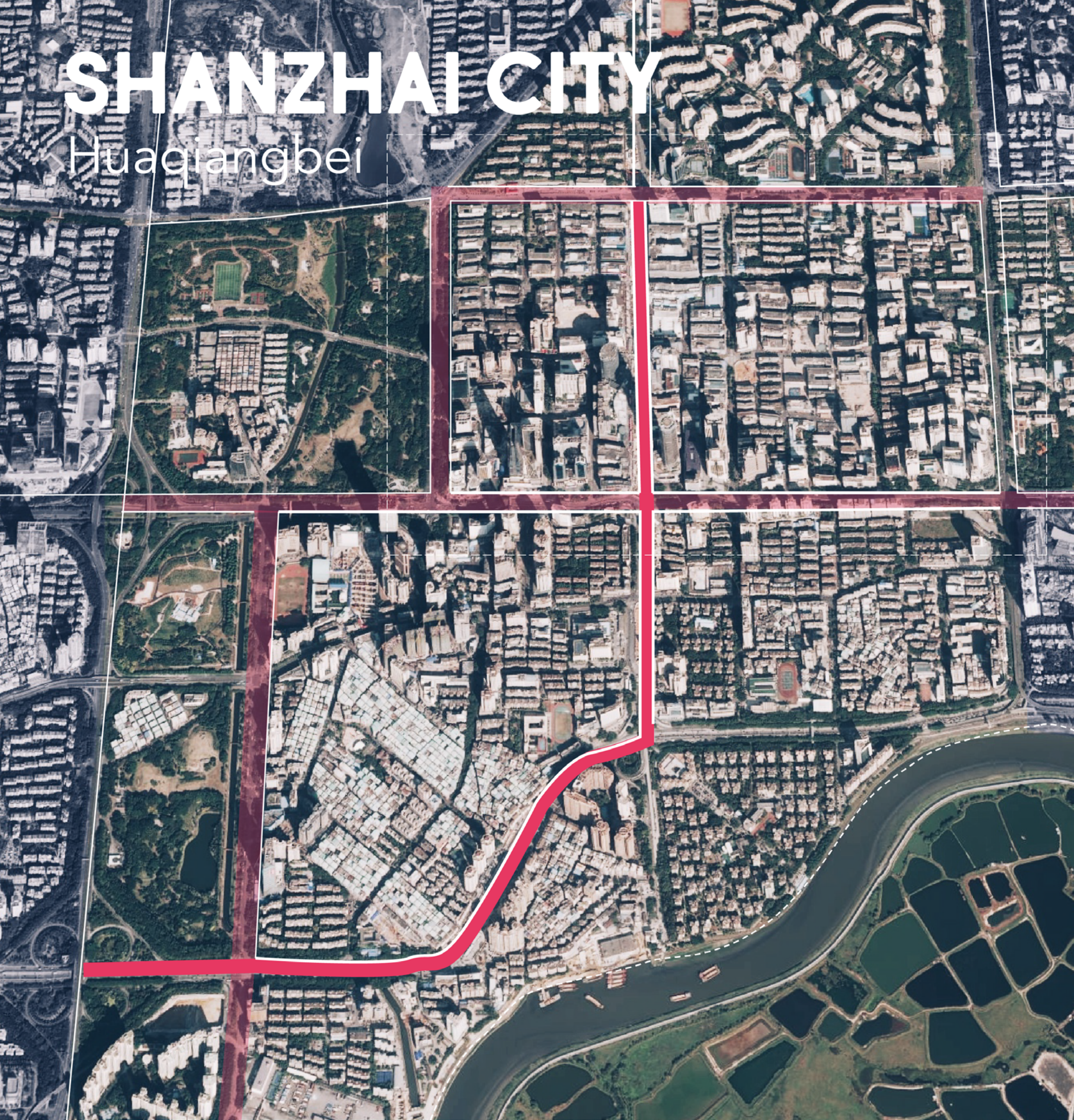
GOVERNMENTS

+

+

SHANZHAI CITY

Huaqiangbei



HQB industry area is seen as collective effort in transforming the zoning plan by Shanzhai entrepreneurs.



1980



1984



1985



1990



1996



1998



2007



2017

Early 1990s, "Securities Trading Mainly",

1990 "Residential mainly", "Sub district-level commercial service center" and so on

2005, Regional Electronic Market

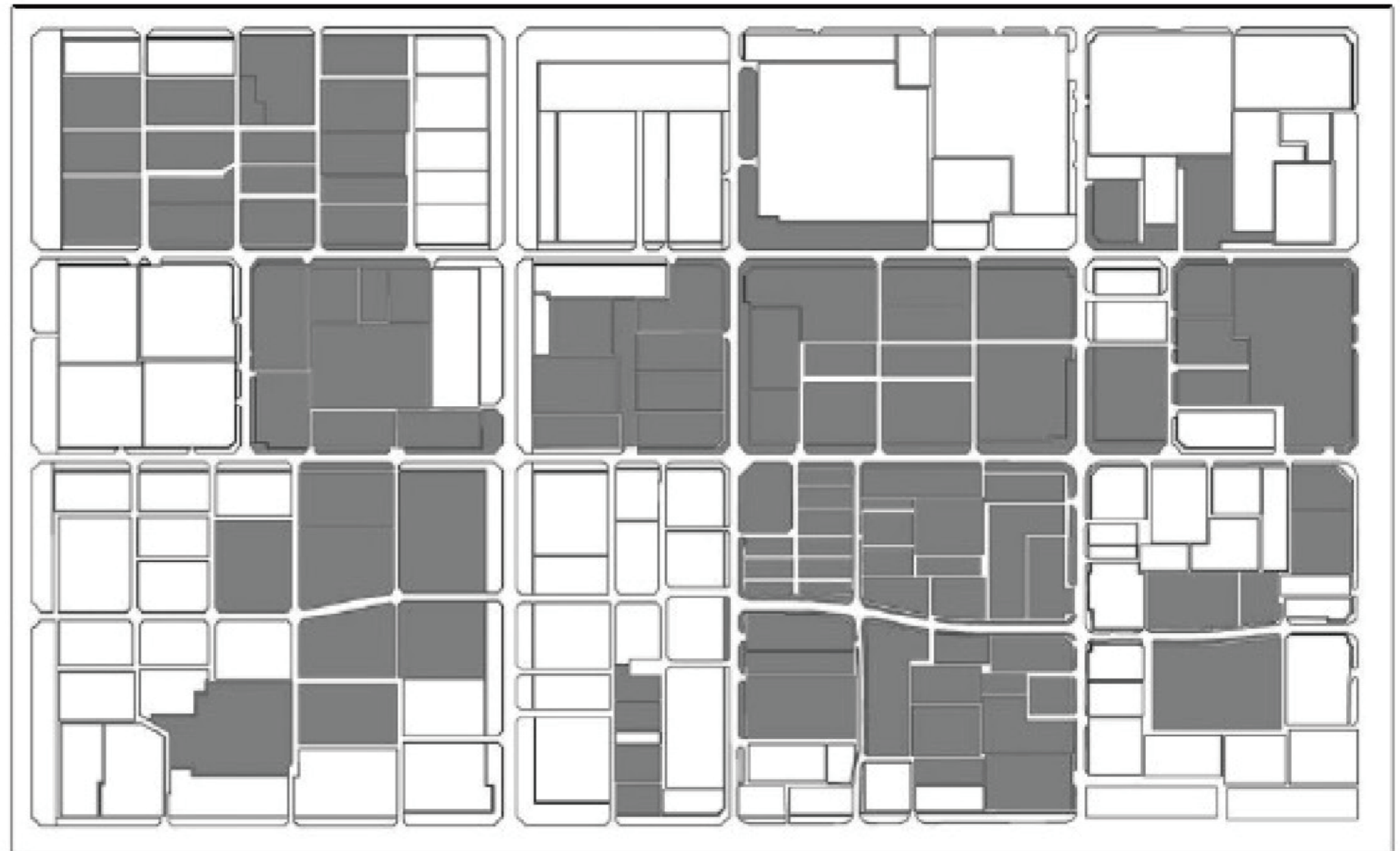
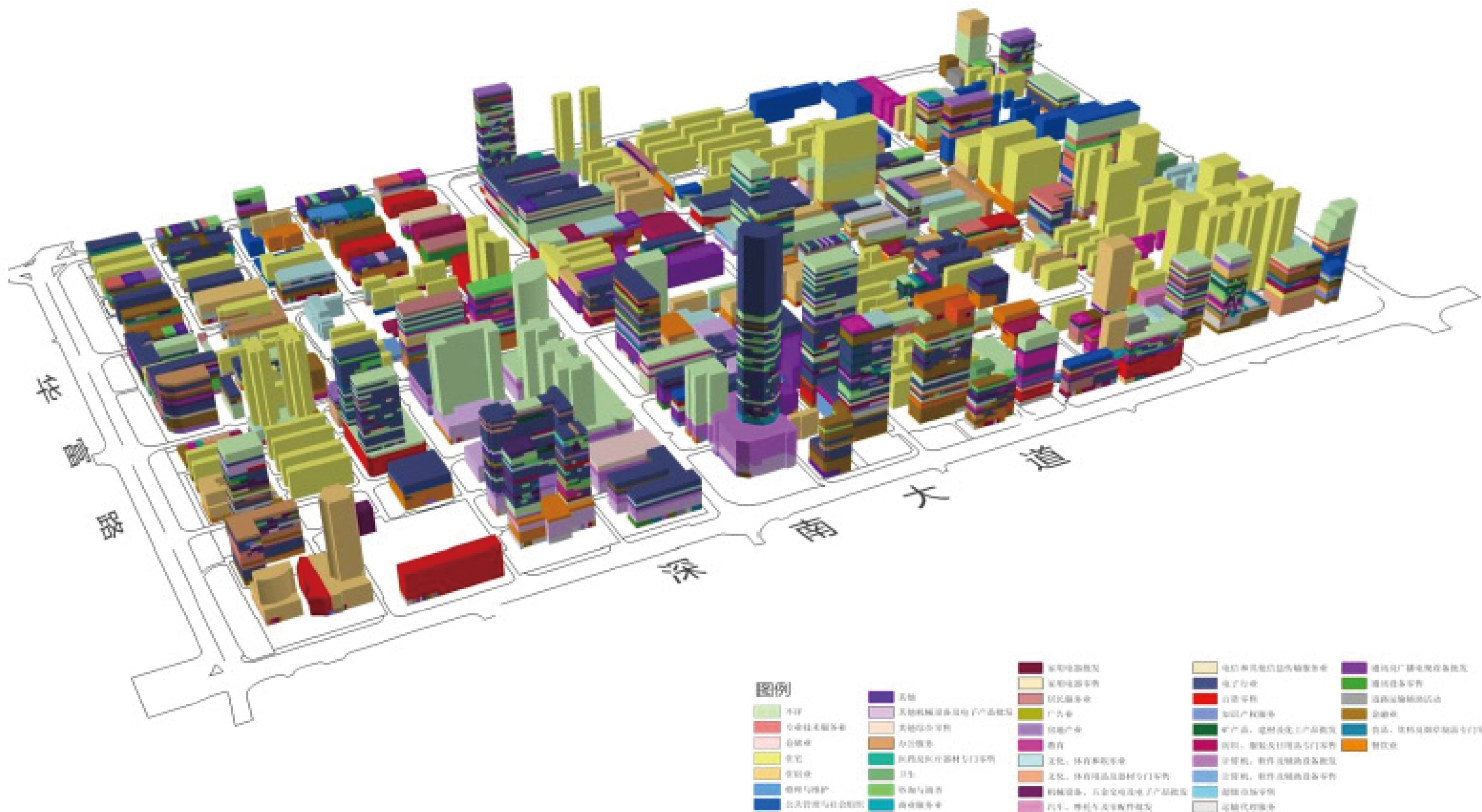


图3 2004年现状与1999年规划比较未按规划实施用地(深色部分)
Fig.3 Situation of 2004 and self-developed land compared with the planning of 1999 (dark color)



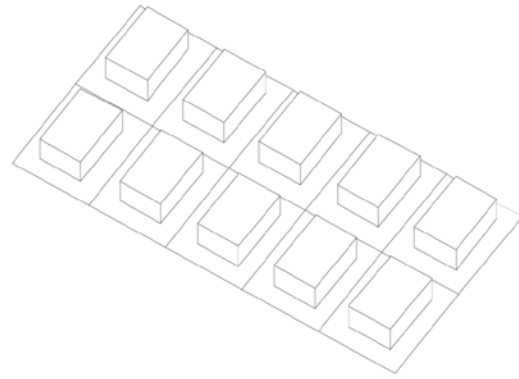


Spatial

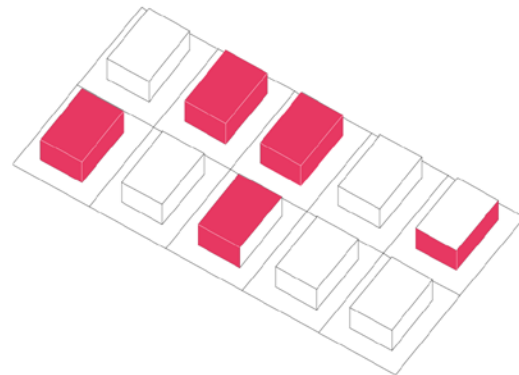
Social

Economical

STAGE ONE



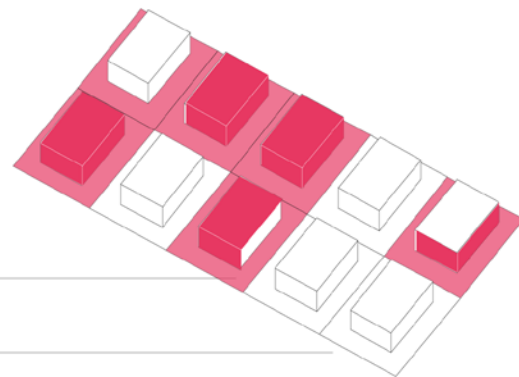
STAGE TWO



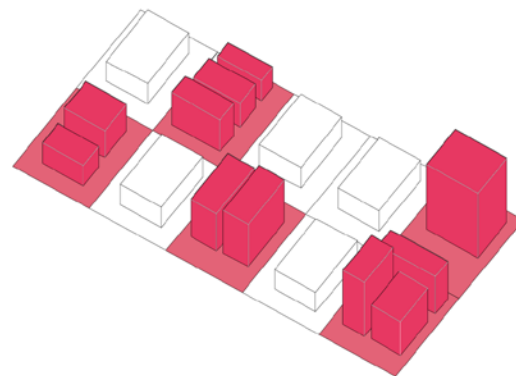
STAGE THREE

Commercial

Industrial

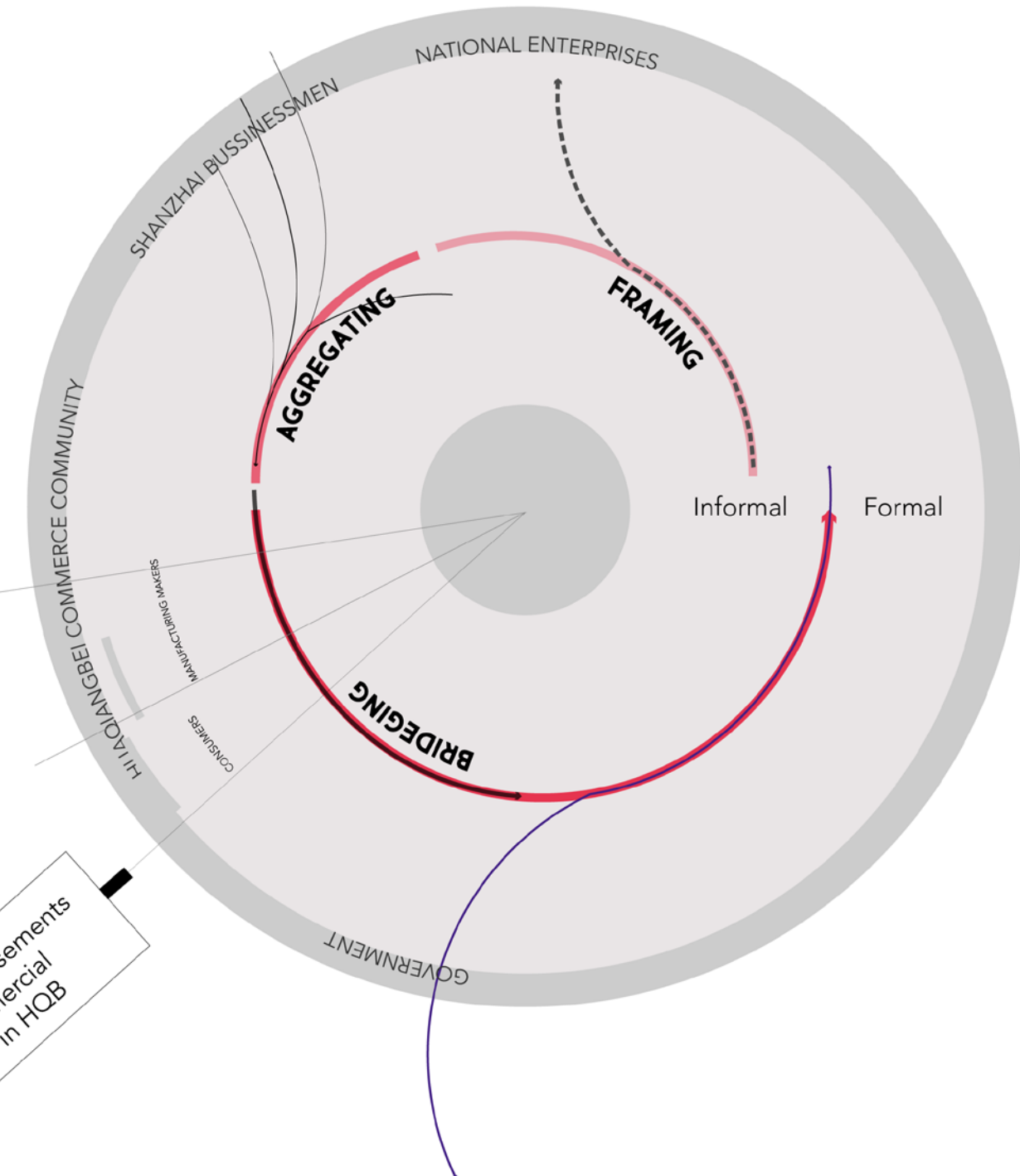


STAGE FOUR



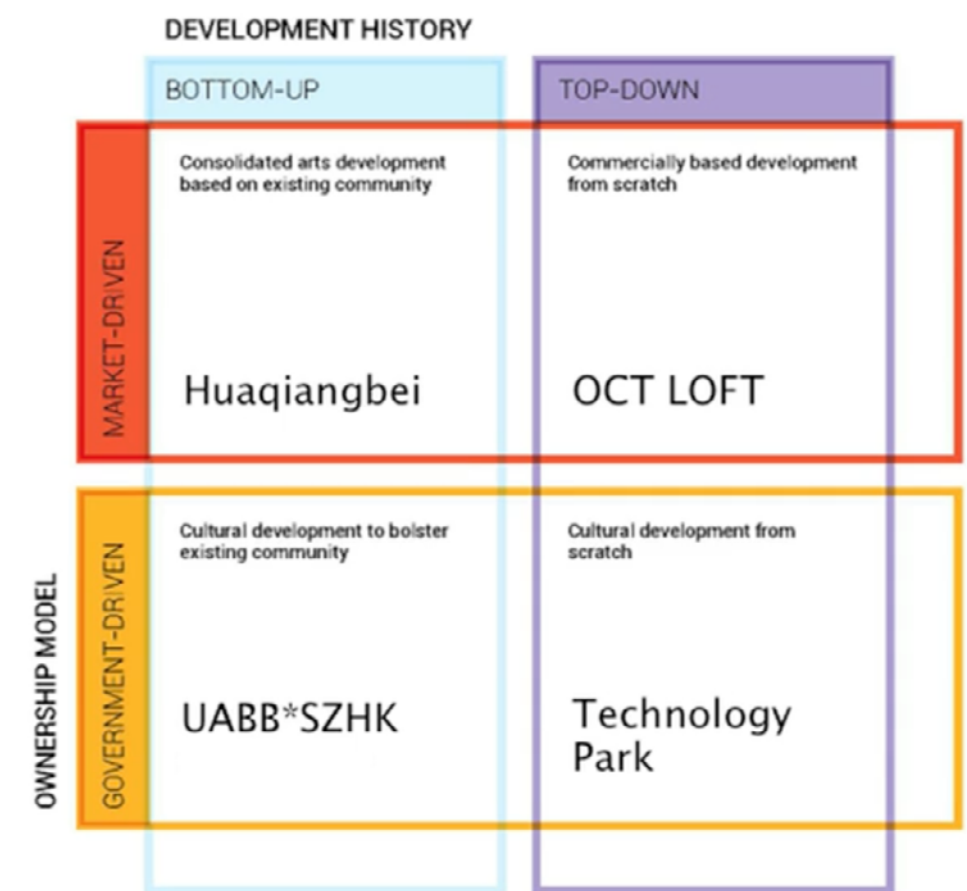
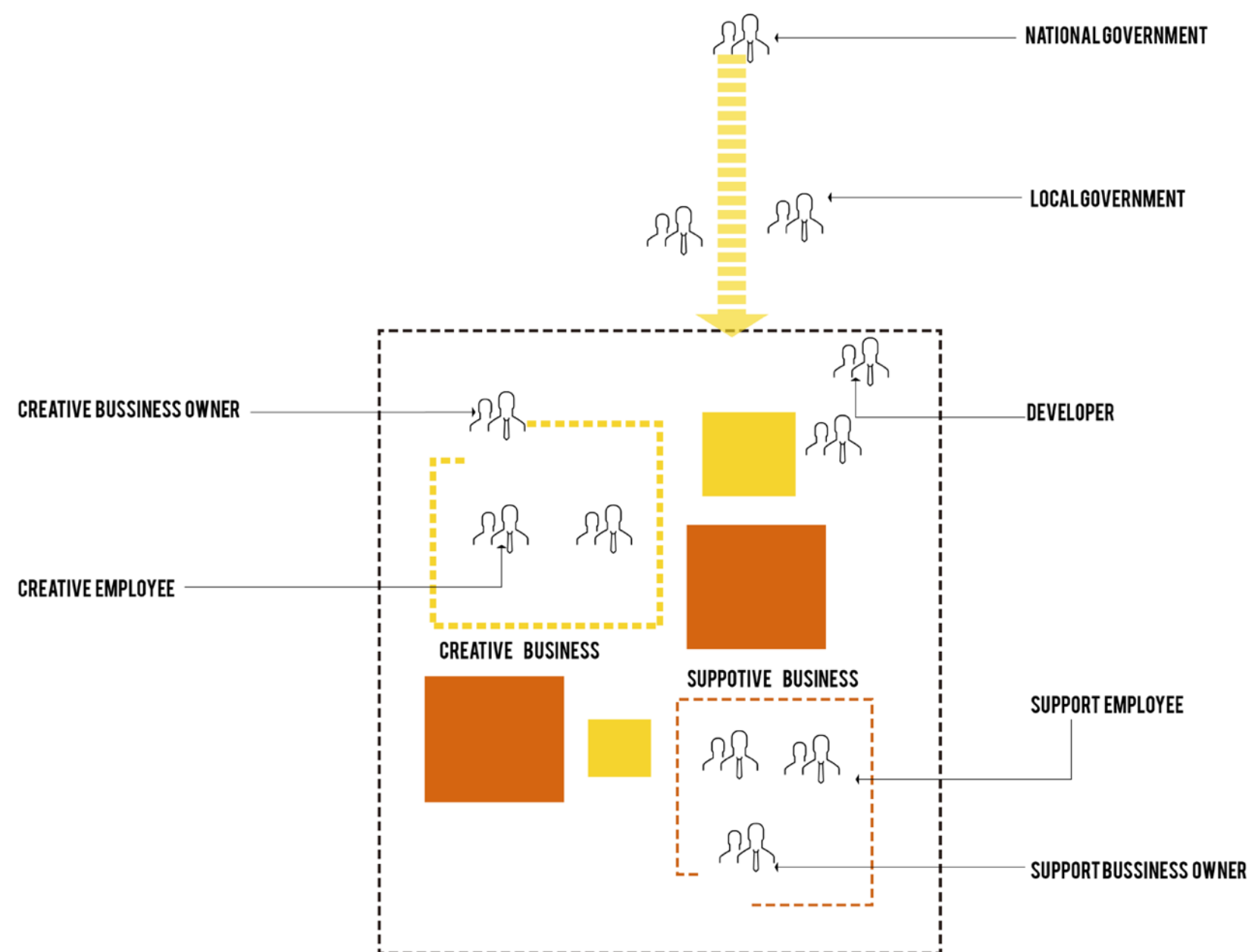
Government Recognized the
Legal Statue of Changing Indus-
try Block to Commercial Purpose

Keep Outdoor Advertisements
and Organize Commercial
Promotion Events in HQB





Source: Google.Com



Shanzhai, which is synonymous with the **INNOVATION KNOW-HOW PROCESS**, is far more resilient than any existing economic structure based on capitalist rules, because it is based on the **COLLECTIVE OF MILLIONS OF INNOVATORS** instead of relying on a monolithic knowledge management system that can fail easily due to one wrong decision at the executive level.

PROTOTYPE



Horizontally-Integrated



Vertically-Integrated

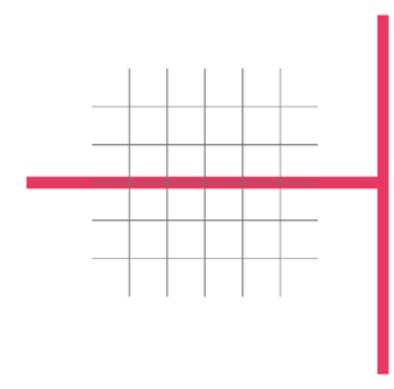
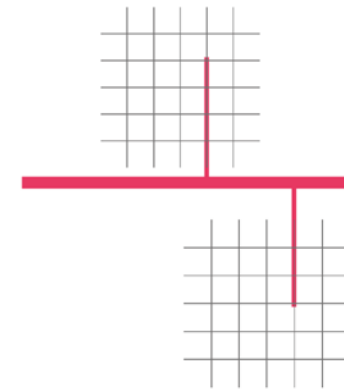
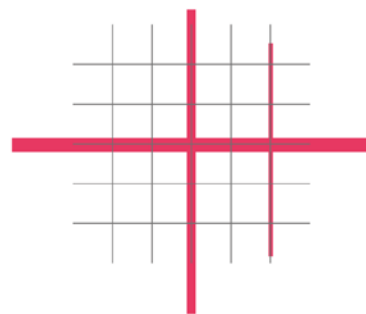
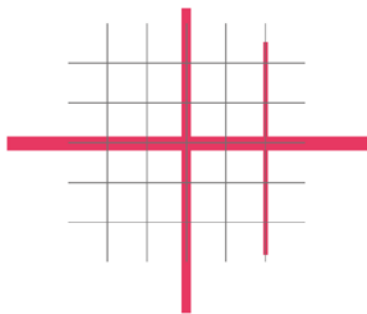


Adjacent



Autonomous

INFRASTRUCTURE



PROGRAM



ZONING



SKYLINE

How Can We Evaluate These Qualities?

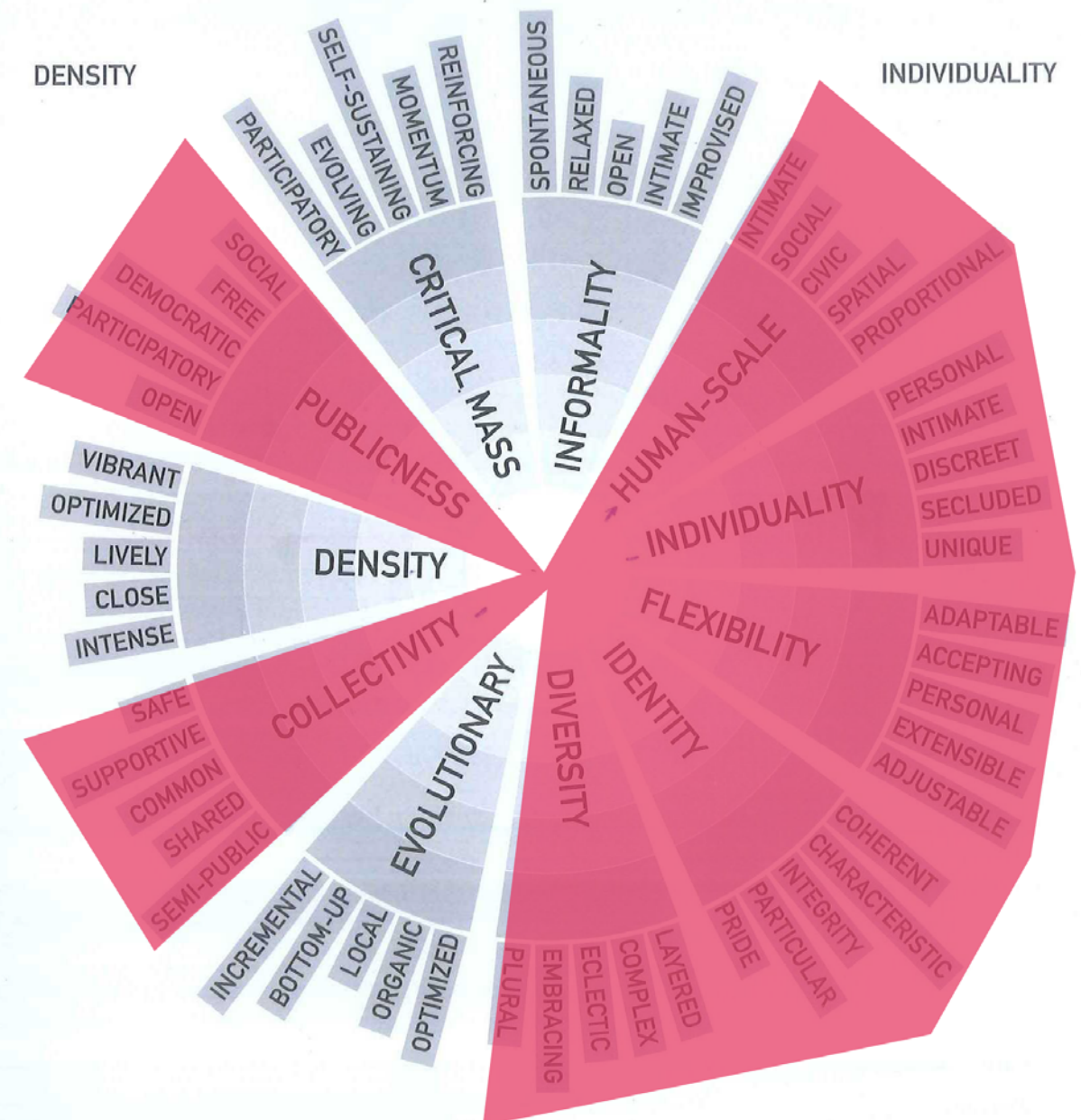
As these examples show, there are no definitive criteria or rules that define the qualities of communities, but there are broad principles, each representing different strengths and opportunities.

However, in order to learn from these principles, it's important to be able to evaluate them, and to 'measure' a community's qualities. The Urban Community Quality Wheel (opposite) captures these 11 key qualities, using our own common sense. The Urban Community Quality Wheel is used as a tool throughout this book, to measure and compare projects researched and produced, and to test what works, and what doesn't.

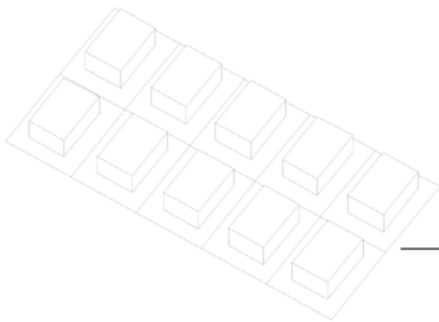
The quality of communities is their ability to combine two seemingly competing characteristics: density and individuality. On the one hand, communities are dense, public and collective; on the other, they enable individual freedom and identity, traits expressed through flexibility and diversity.

Two new urban models were developed in the twentieth century as responses to these desires – the individuality of suburbia, and the density of the tower block – neither of which is suitable for our increasingly populated and resource-scarce planet. Can these two competing impulses be reconciled?

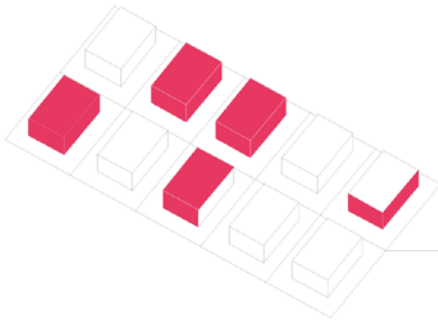
The challenge for the future design of living spaces is to combine density and individuality, serving both the global needs of the environment, and the personal needs of the inhabitant.



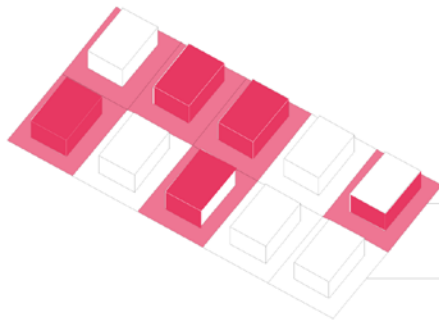
SATGE ONE



SATGE TWO



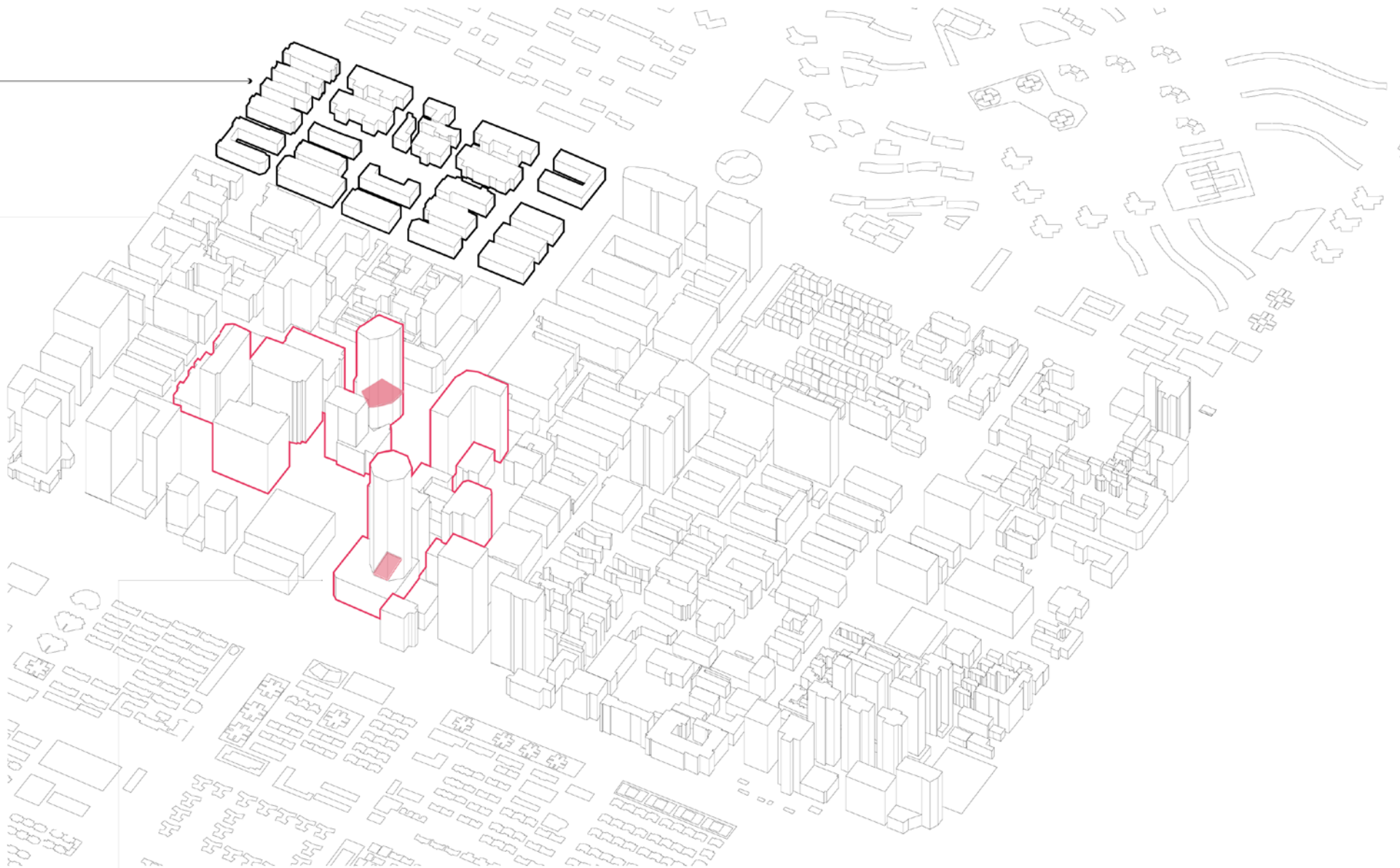
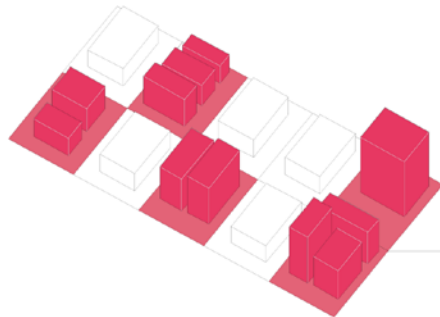
SATGE THREE



Commercial

Industrial

SATGE FOUR

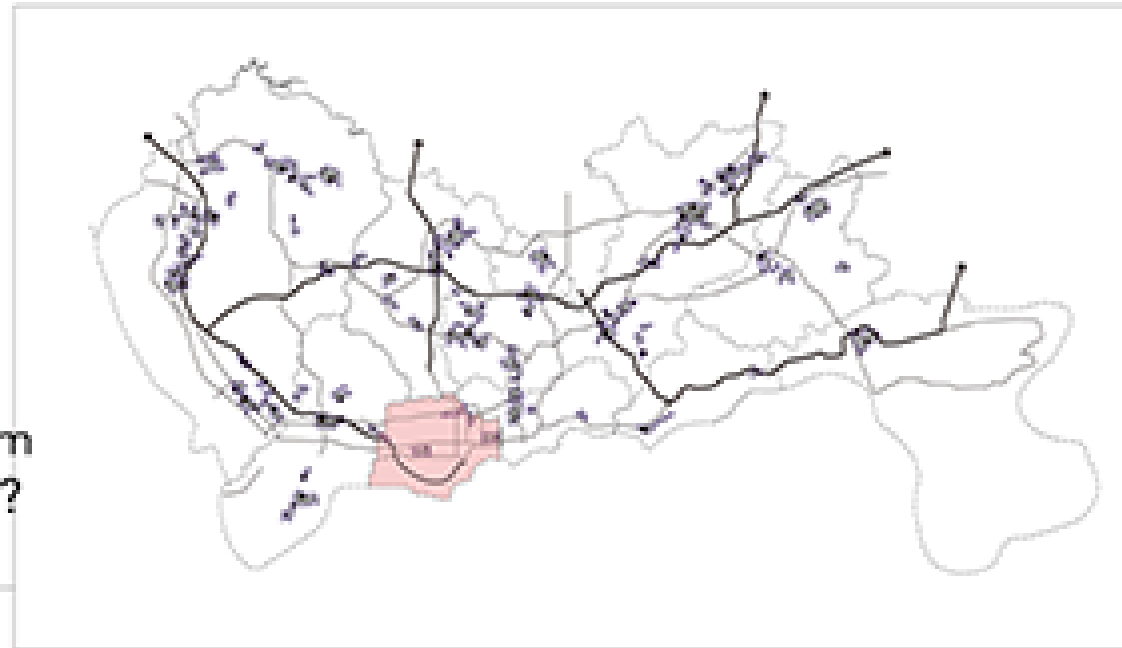


(ZOU, 2014)

GUIDANCE

MAKER CITY 1.0

2. What is the situation of current maker movement and demands from makers in shaping their own spaces?



SNOWBALL SAMPLING METHOD

LITERATURE REVIEW

CAMPARITIVE STUDY

"Values behind current maker movement decided the purpose of majority maker spaces in Shenzhen. Relocating maker movement in Chinese Innovation System would the fact that mismatching between local demands in shaping their own environments and national culture."

+

MAKERS

+

POLITICS

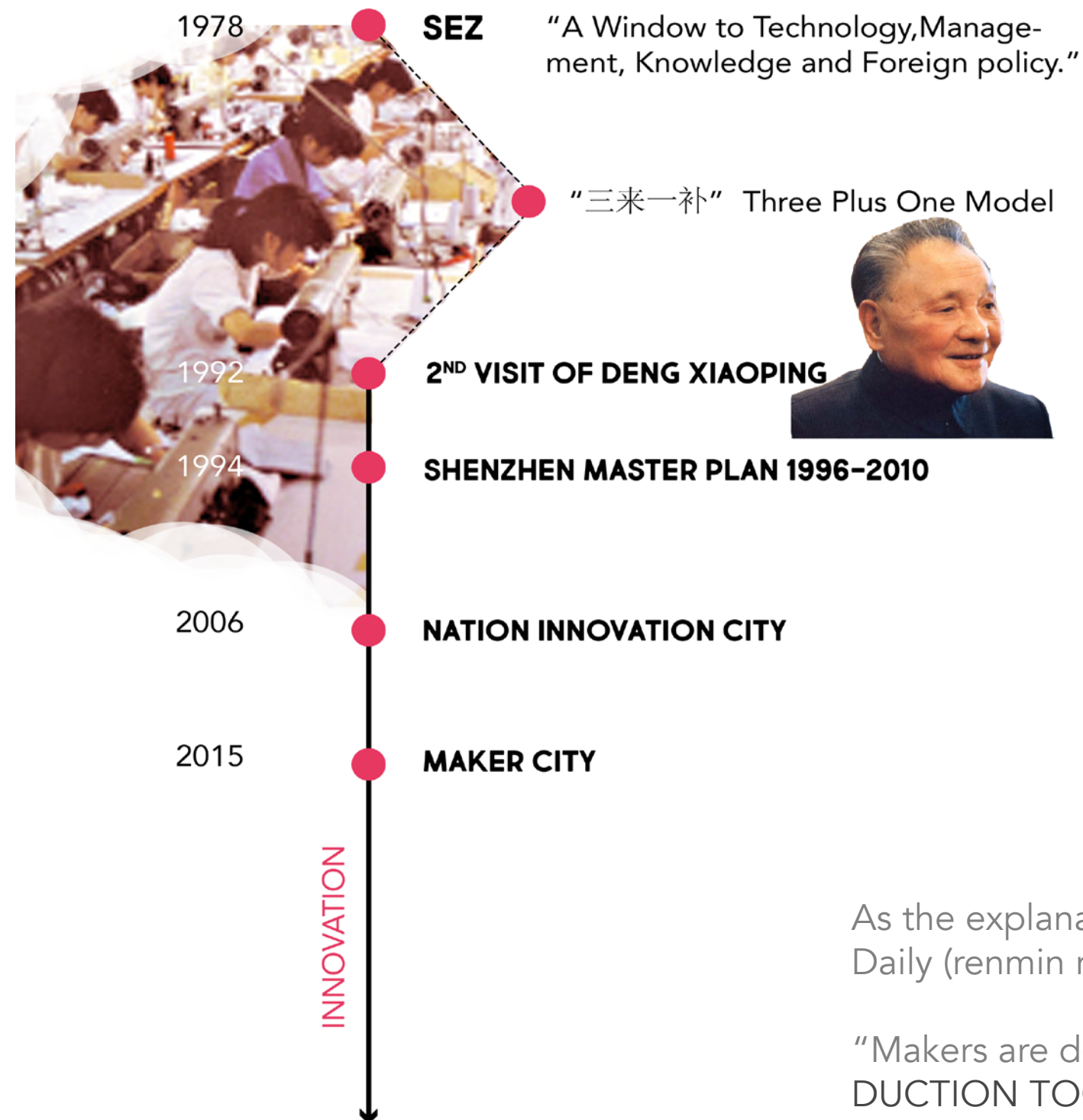
SPATIAL

GOVERNMENTS

+

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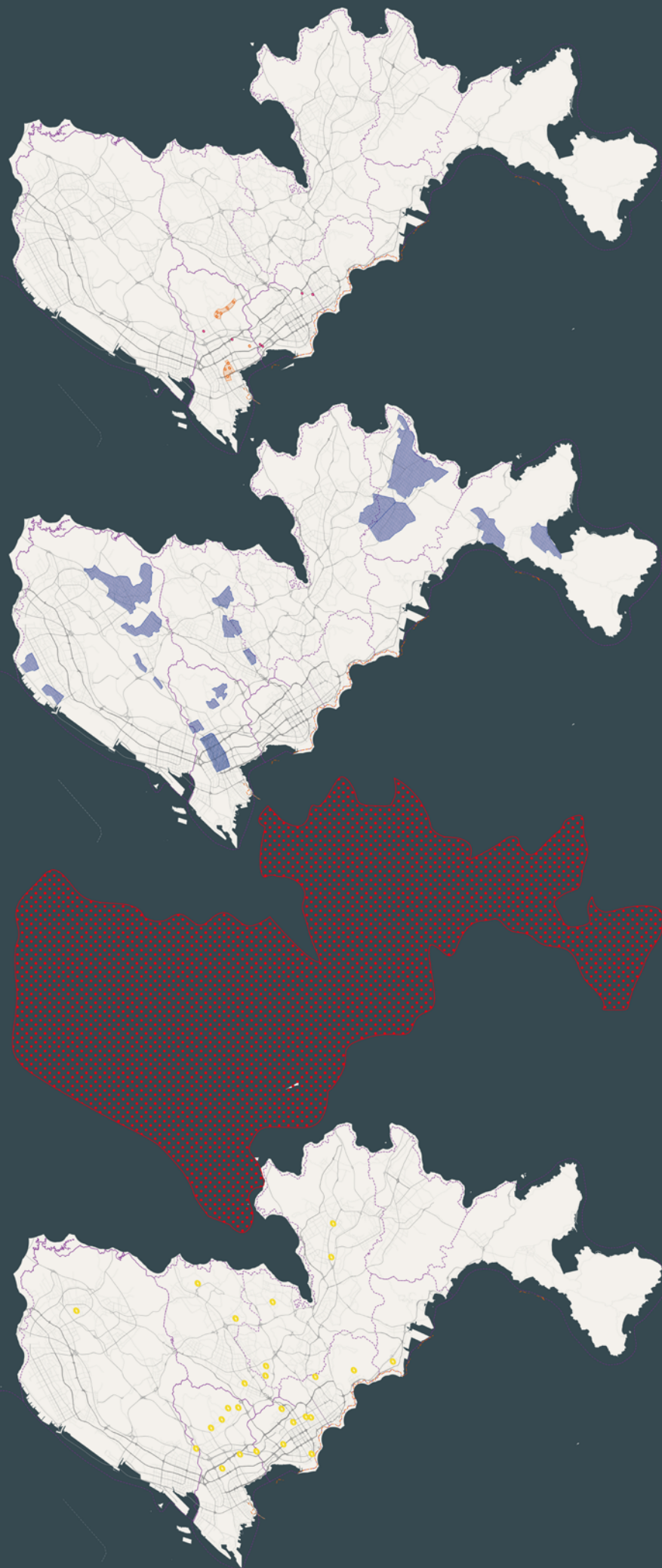




MASS INNOVATION MASS ENTREPRENEURSHIP

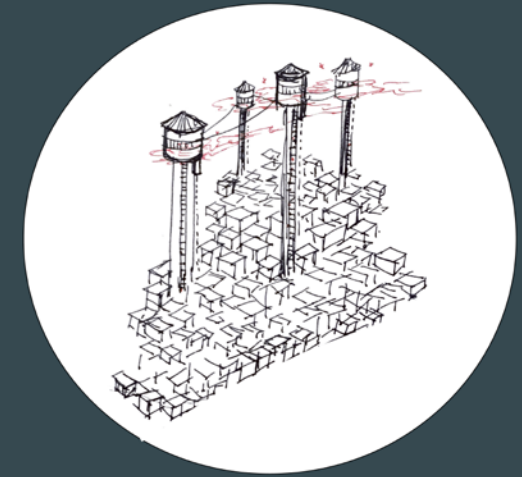
As the explanation given by The People's Daily (renmin ribao),

"Makers are devoted to innovation passionately. They control the PRODUCTION TOOLS themselves. Taking 'user-innovation' as a core concept, they excel in discovering problems, unearthing (customer) needs, and providing solutions. Through creativity, design, and MANUFACTURING, they offer a variety of products and service." (Yu and Deng 2015, cited in Wang, 2016)



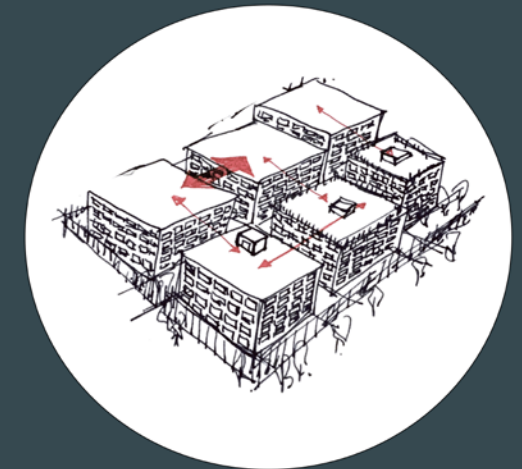
LAYER ONE

RESEARCH INSTITUTES
HIGHER EDUCATION INSTITUTES



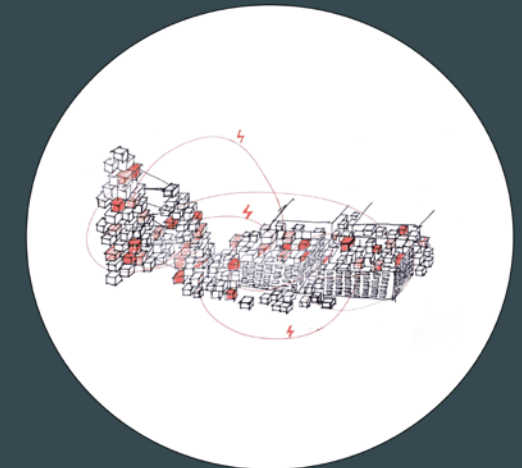
LAYER TWO

SCIENCE TECHNOLOGY PARK
SOFTWARE PARK
SCIENCE-TECH BUSINESS CENTER
PRODUCTIVITY PROMOTION CENTER



GAP

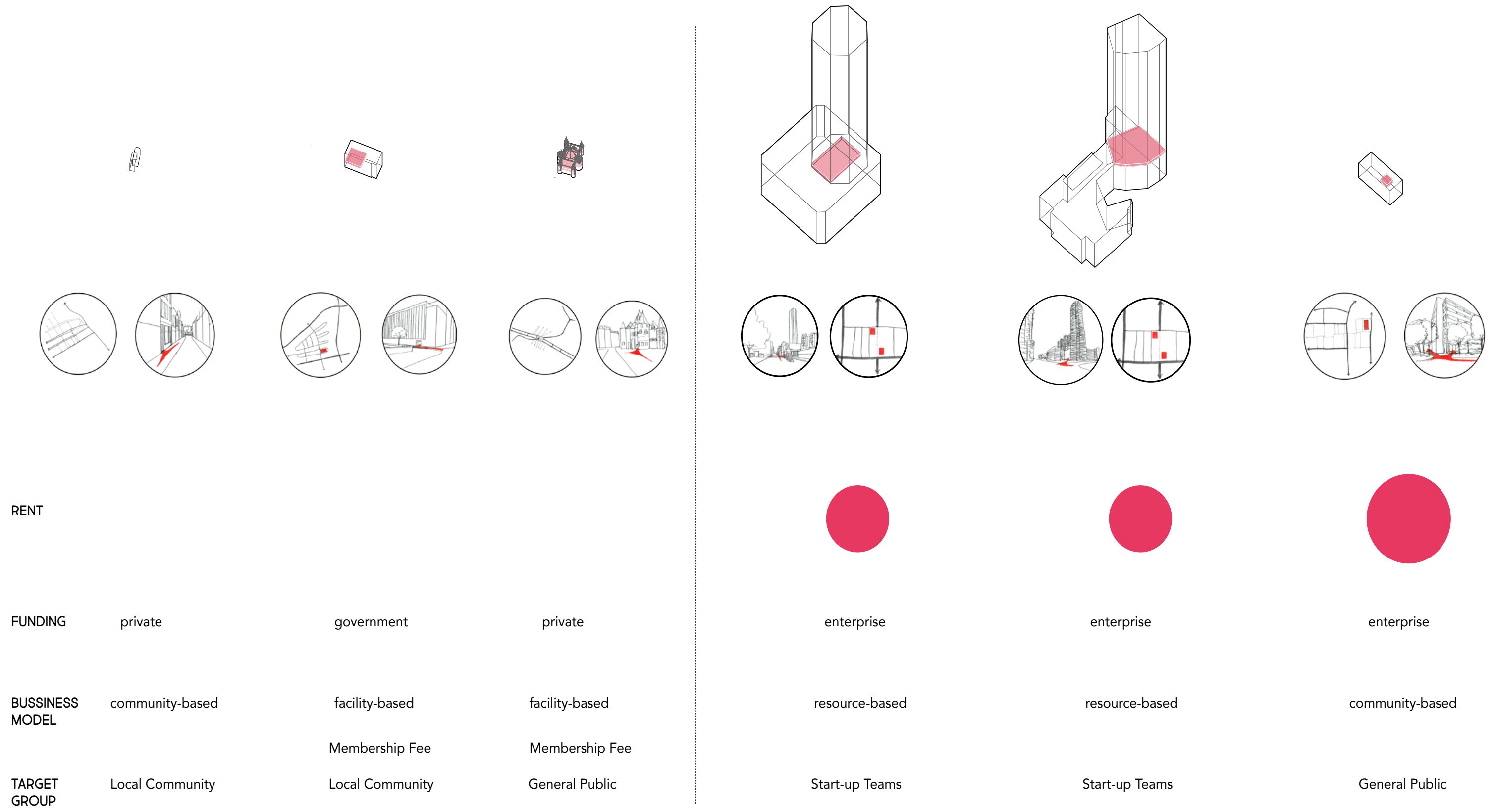
WHAT GOVERNMENT NEEDS
WHAT PUBLIC NEEDS

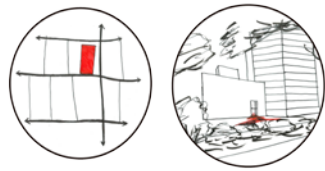
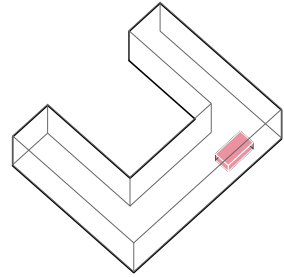


LAYER THREE

WIDESPREAD GRASSROOTS EXPERIMENTATION, FOR EXAMPLE, MAKER SPACE



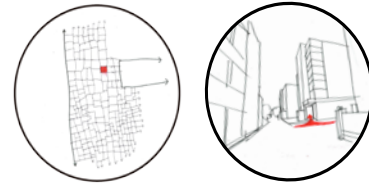




government

resource-based
facility-based

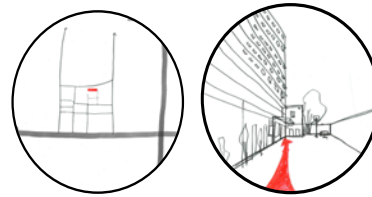
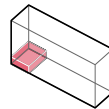
Makers
Start-up Teams



self-organized

community-based

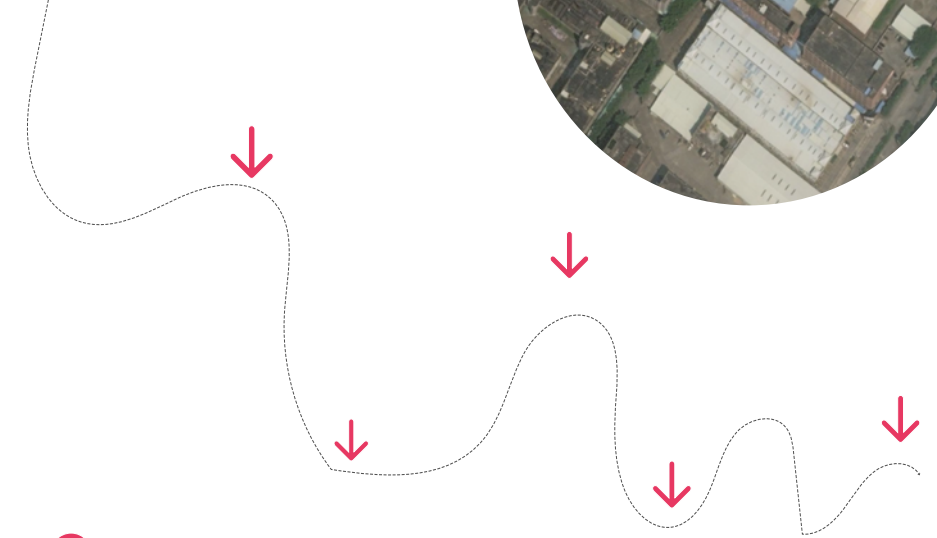
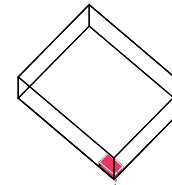
Makers



private

innovation-based

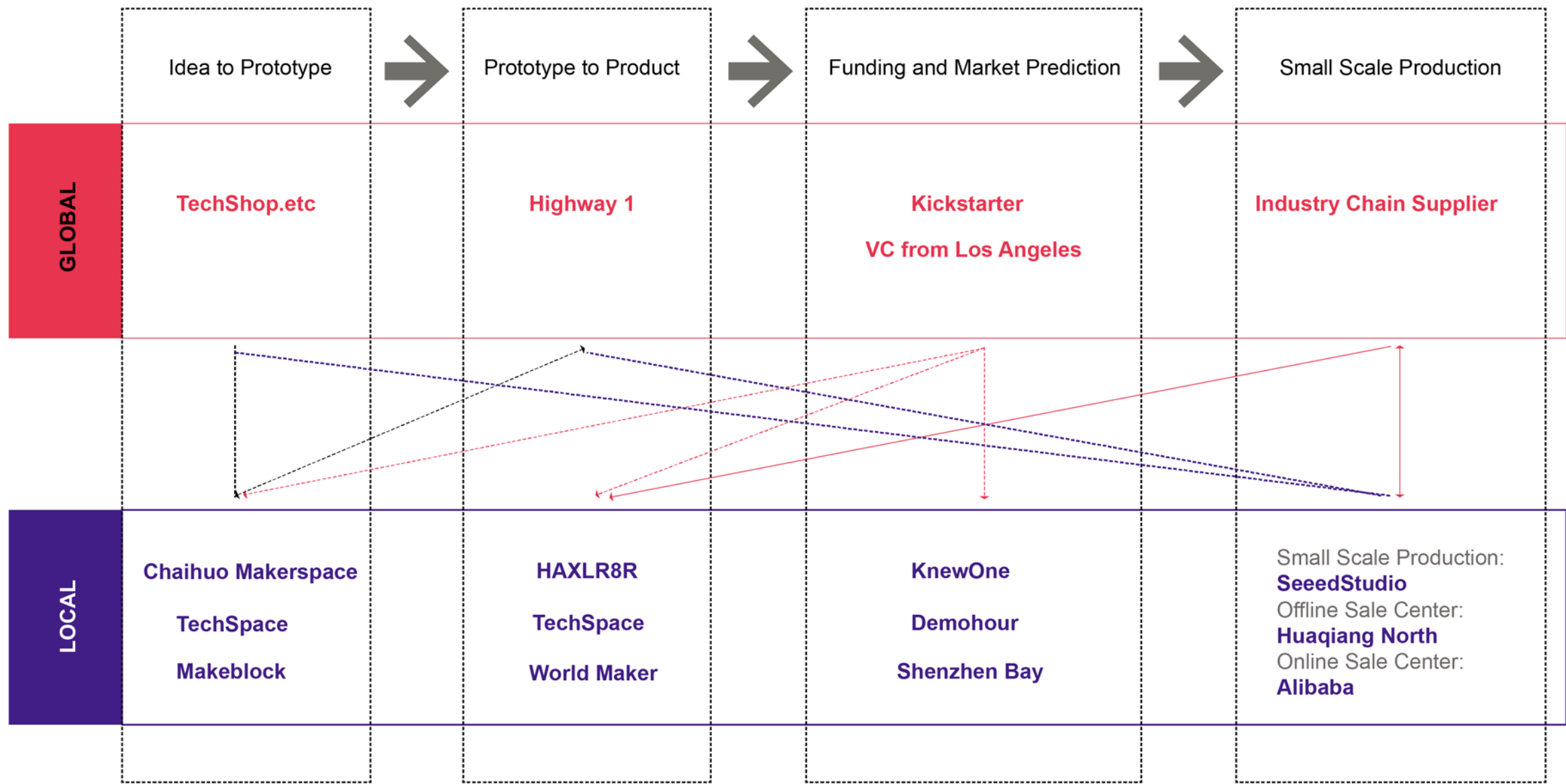
Students



private

community-based

Flowing Children



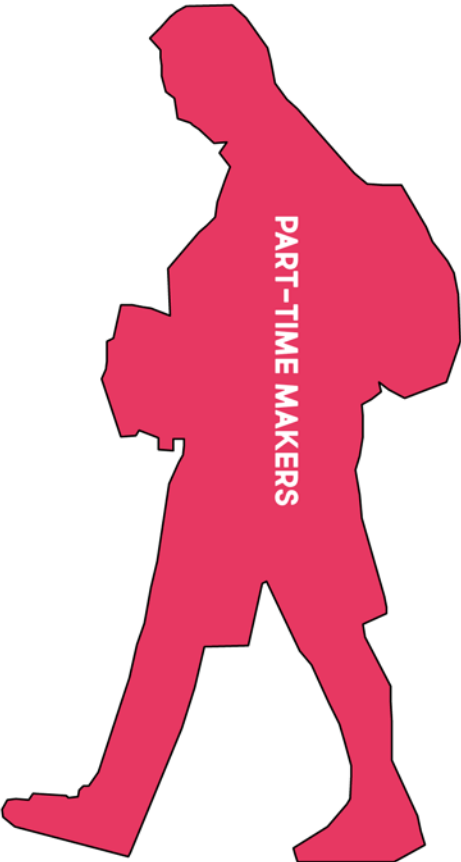
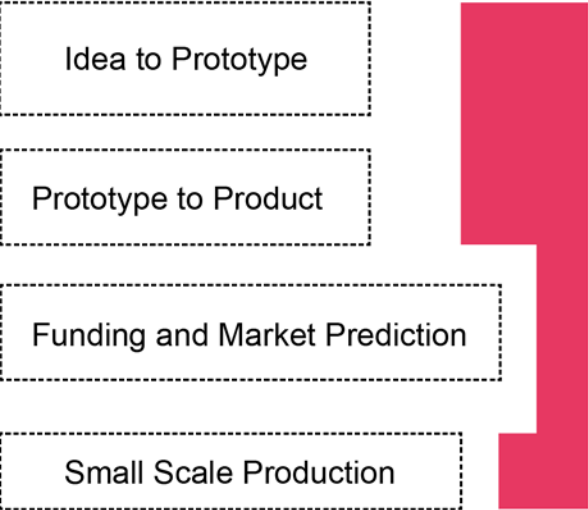
Information Flow

Capital Flow

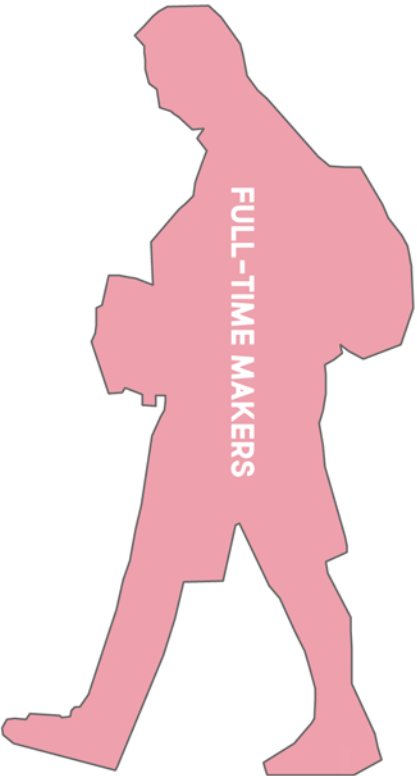
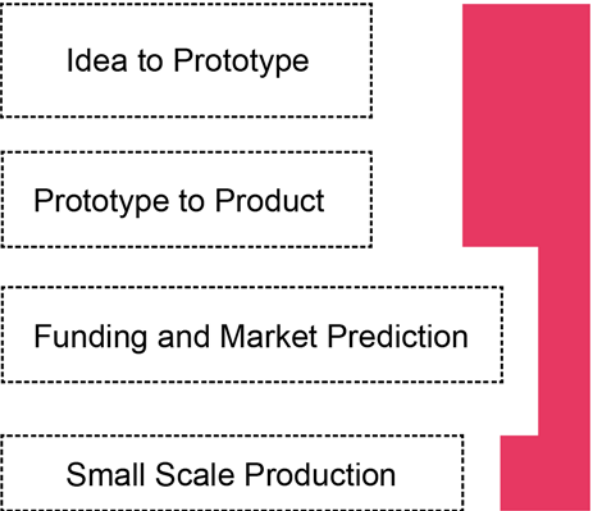
Product Flow

**HARDWARE DESIGNERS
SOFTWARE DESIGNERS**

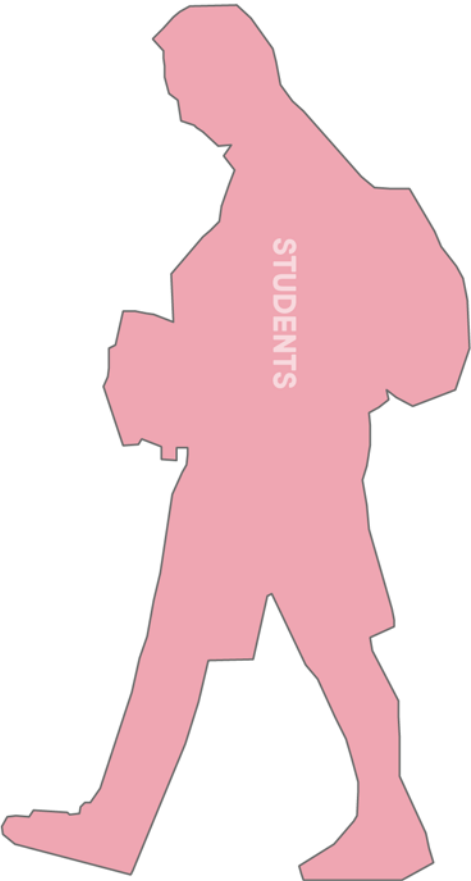
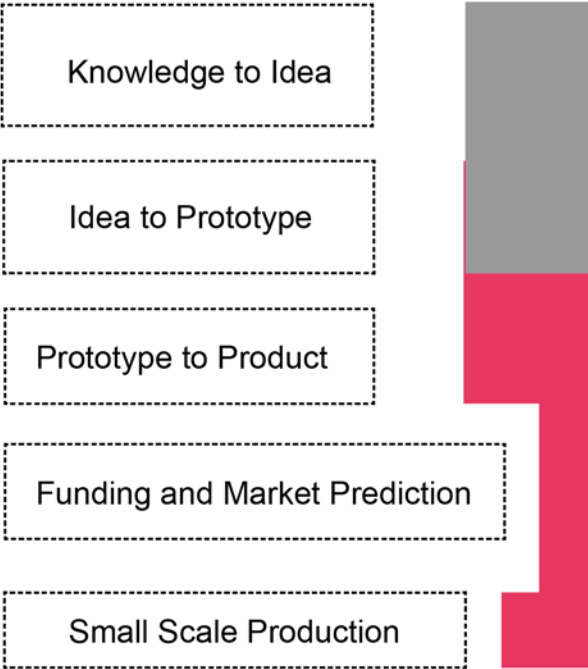
INCOME 1,500 EURO/M

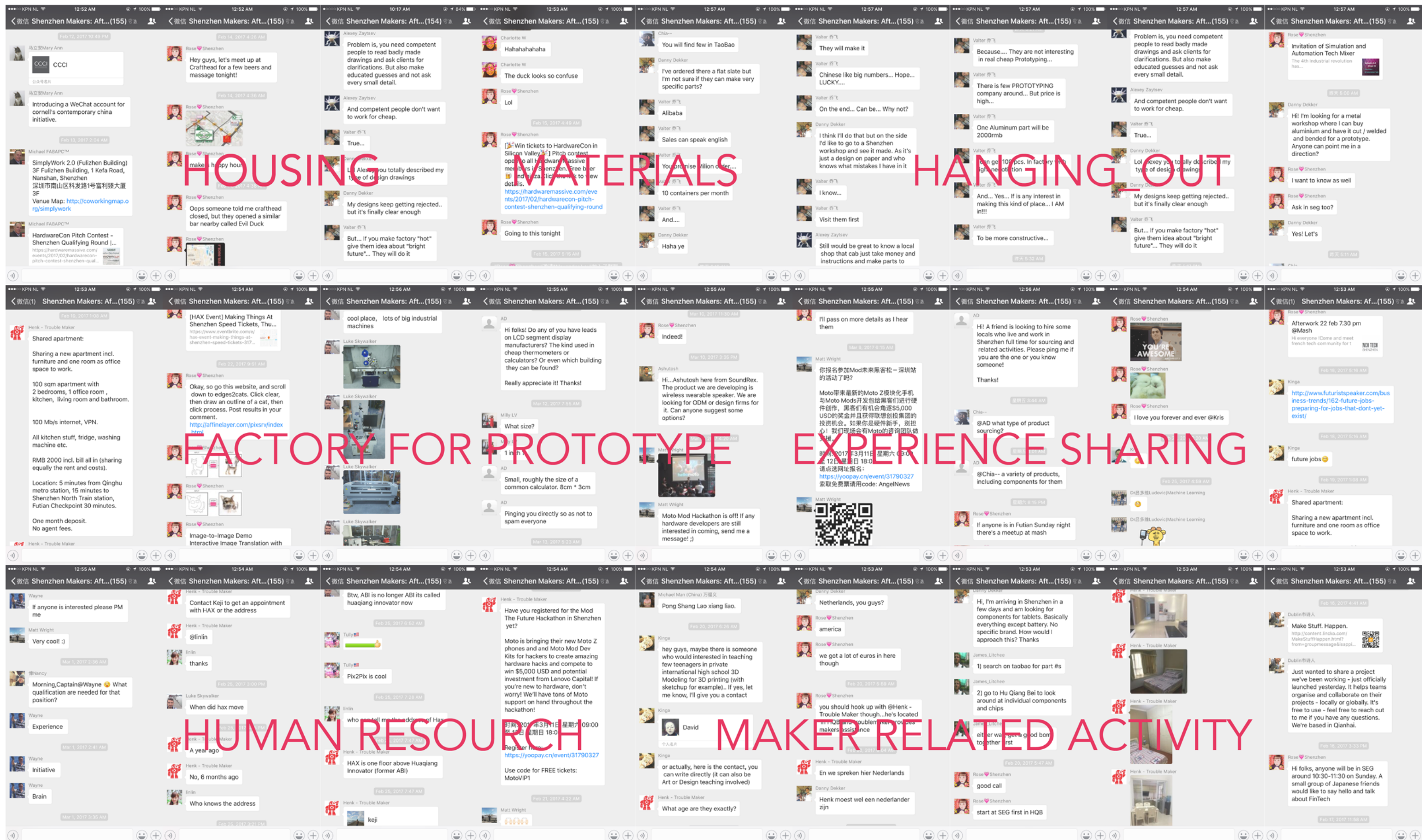


**START-UPS
FOREIGN MAKERS**



**PRIMARY SCHOOL
MIDDLE SCHOOL
HIGH SCHOOL**





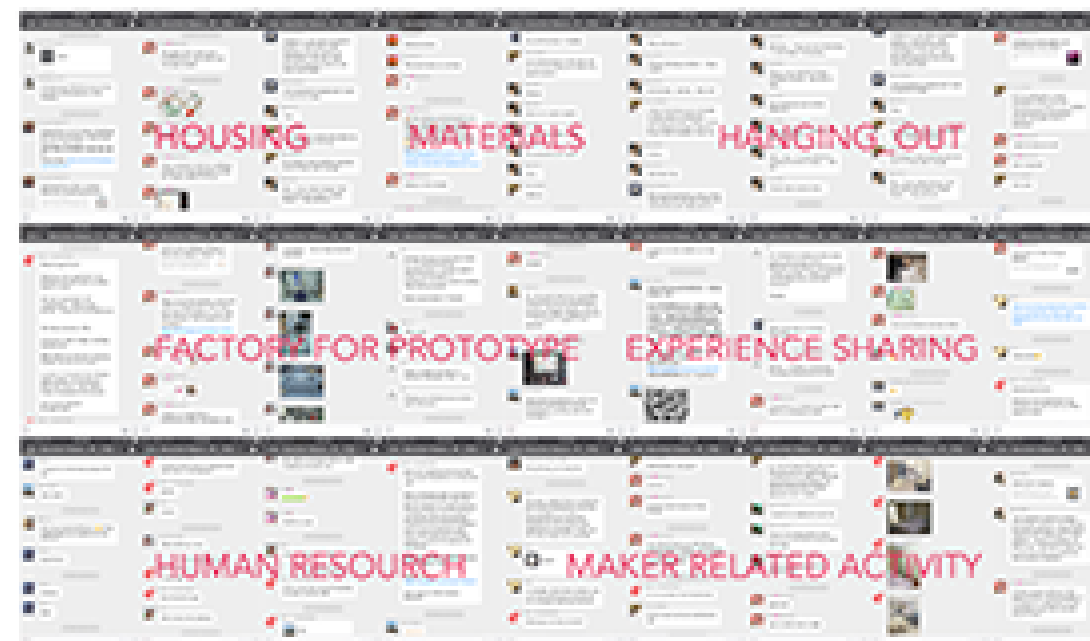
Making as Manufacturing

CONFLICT



Doing For Fun

LIFESTYLE



DESIGN

MAKER CITY 2.0



LITERATURE REVIEW

CAMPARITIVE STUDY

"Maker City 2.0 does not negative the significant of Maker 1.0 but saw it as a starting point for empowering migrants and subversion purpose. It intends to enlargen the influence of maker city throug including migrants and local social-economic production in this process. Meanwhile, the design interventions in urban village intends to go beyond the physical structure of the urban village and bring an understanding of an intangible network of communities into discusion.

+

MAKERS

+

POLITICS

GOVERNMENTS

SPATIAL

+

+

MAKER CITY 2.0

FUTIAN village



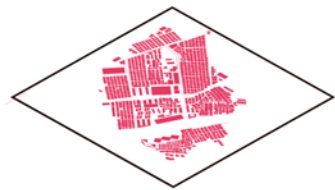
ANALYSIS

SPATIAL ACTIONS

OBJECTIVES



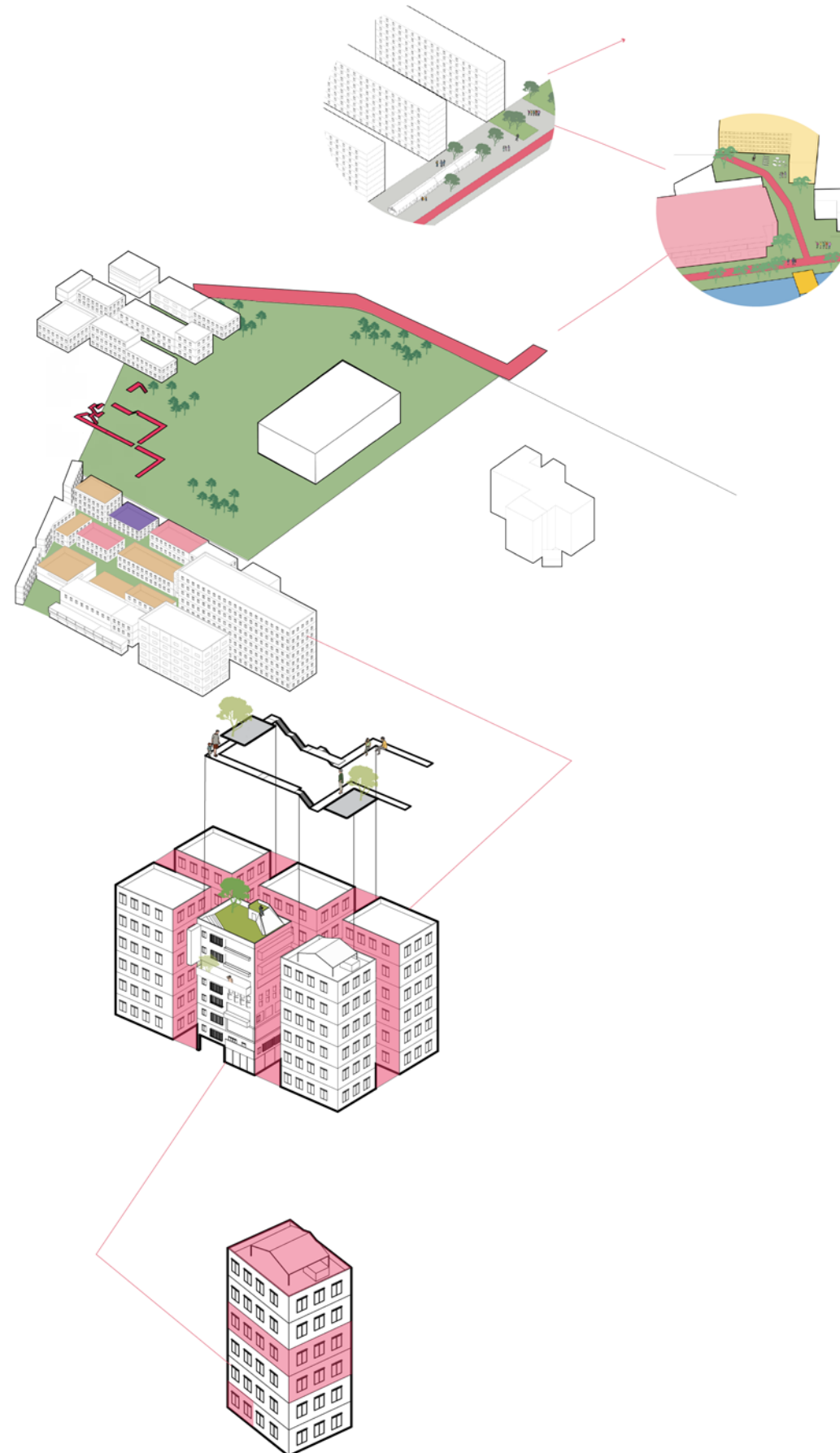
SITE
L



URBAN VILLAGE
M



TPOLOGY
S



BRIDGING

- +Enhance the connection of Futian Village to larger social economic system
- +Create New Centrality

AGGREGATING

- +Provide more sharing places for Live and work of different groups of people especially for makers
- +Forster the local economy especially informal economy
- +Enhance the internal connection of Futian Village

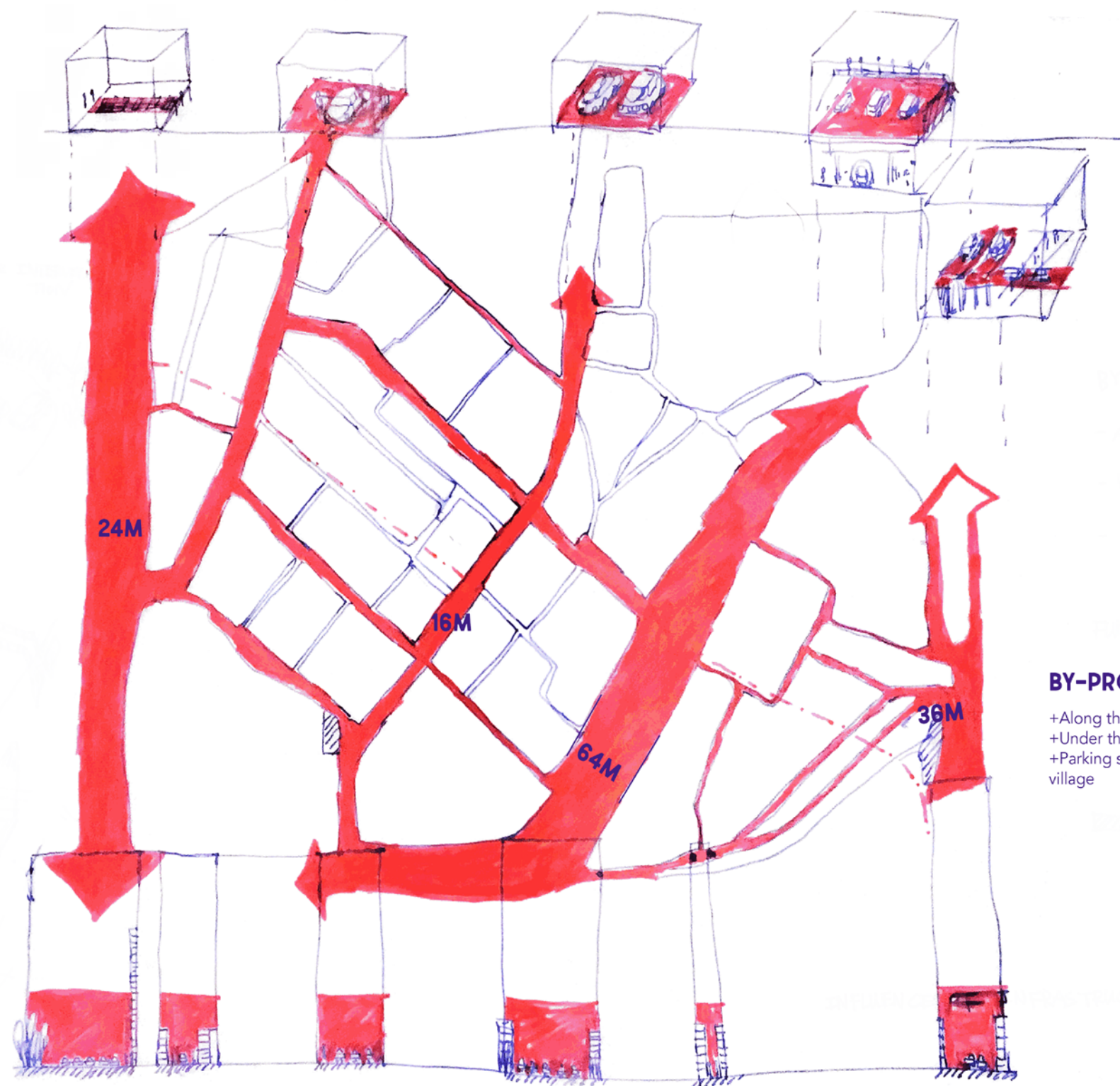
FRAMING

- +Set Standards for tranforming current typology to suitable living and working place for makers



CONTEXT

Futian village is located in the southern part of the Huaqiangbei Area and it is surrounded by variety of building typologies such as Danwei Buildings, Public buildings, Schools and Office. Such mixed typology threatened the existing of the urban village since the whole urban village is locked by the walls surrounding around. die soon if the heat continues. However, only energy from interval could really give birth to a new life.

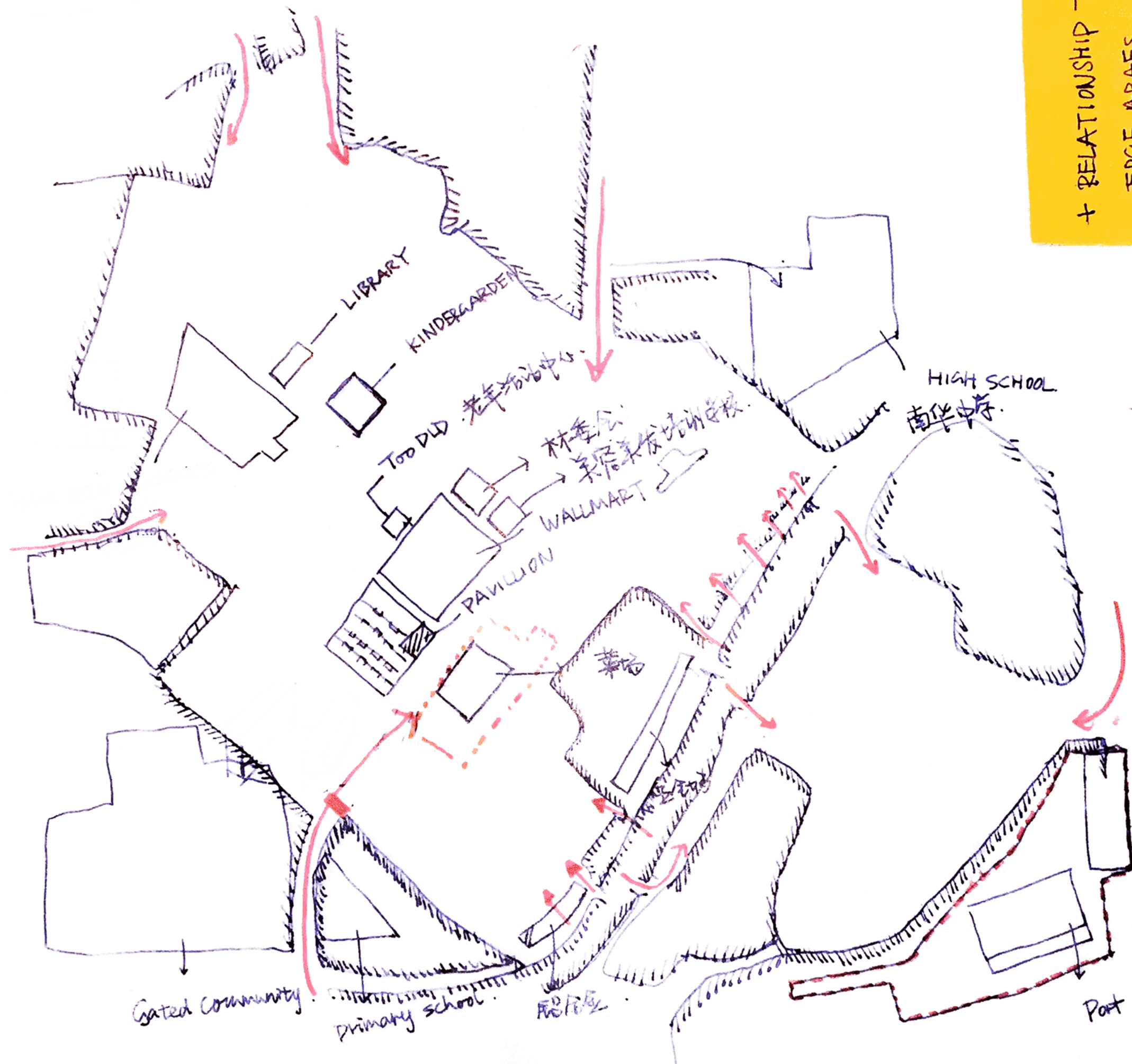


INFLUENCE OF INFRASTRUCTURE

BY-PRODUCT

- +Along the main road
- +Under the Highway
- +Parking space in urban village

Large public system is segregated by high way and Meanwhile, infrastructures play an important role in opening up the urban village but in a negative way, occupying the previous pedestrian area which is used as public space before. Infrastructure and walls work together to squeeze the living space of urban village.



+ RELATIONSHIP TO
EDGE AREAS.
+ ROOF AREAS

However, edge areas surrounding urban village all fenced by walls in a way claim the using right to certain typology. However, urban village provides important daily services to migrants as well as residents live nearby. Fresh food market, restaurants, Walmart Supermarket all important daily life service for guarantying the affordable lifestyle.



CONNECTION

- +Distance between buildings is 2-4m
- +Have a good location in tem of public transport
- +Sharing bike is popular



Futian village has a good connection to public transport including one main metro stop and several bus stops. However, it is in walking distance to these transport. No public transport available for public in urban village. Biking, walking and e-bike becomes the main transport means. With increasing of autos, roads are gradually occupied by parking area. However, the influence of cars and infrastructure does not stop people living in urban village to achieve autonomy through sharing bike system. What lacking in Urban village or does not correspond to the new phenomenon is that no bicycle lanes are in urban village. Sharing bikes provide an equal opportunity for all people to enjoy the cheap public facility.

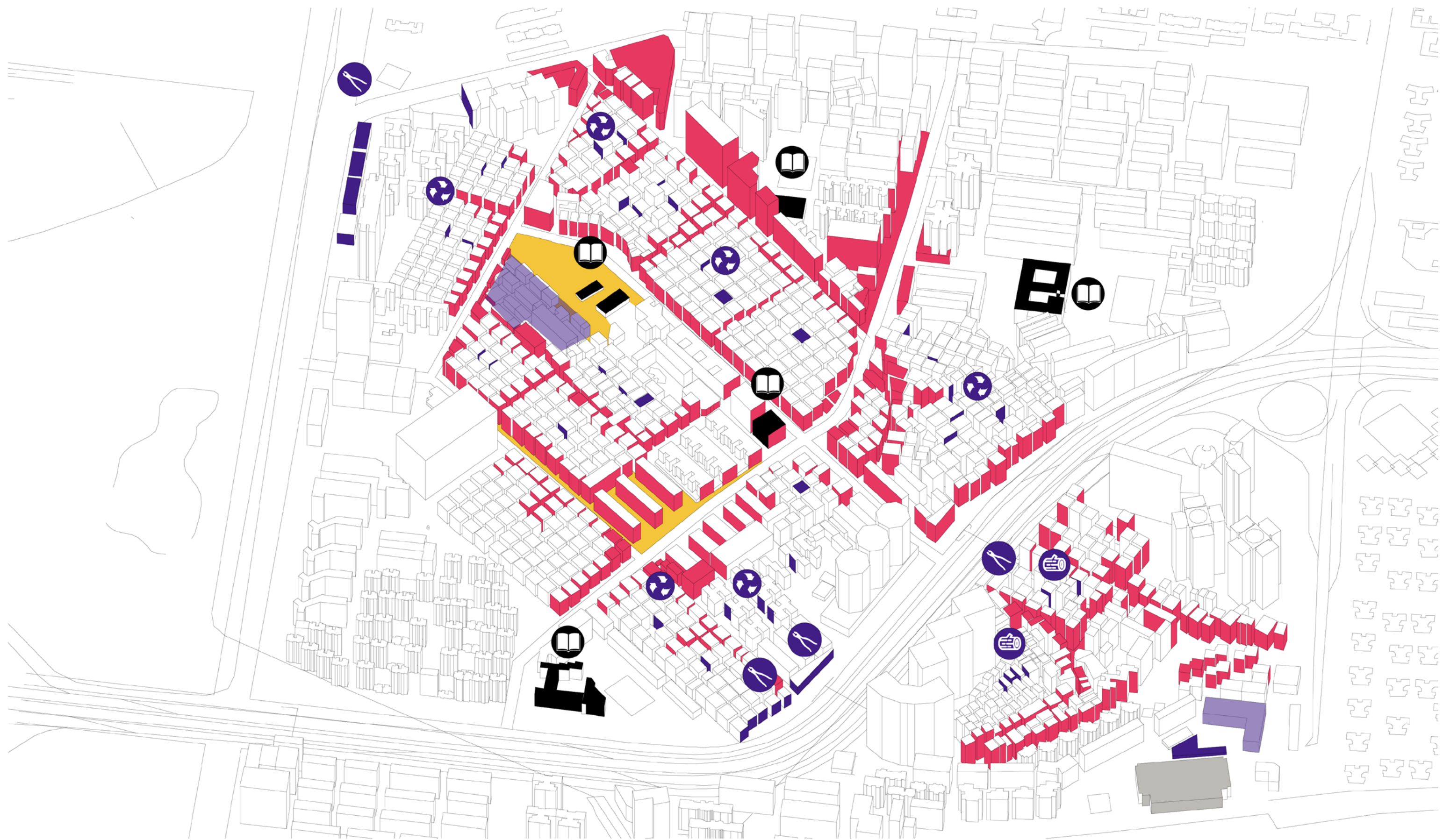


ECONOMY MODEL IN URBAN VILLAGE



OBJECTIVENESS FOR LARGE SCALE

- +Increase the connection of urban village to larger public space system
- +Create new centrality through foster the economic system within urban village
- +Prevent the influence of car transport and foster the emerging transport means





Individual



Space to Seat



Basic Education



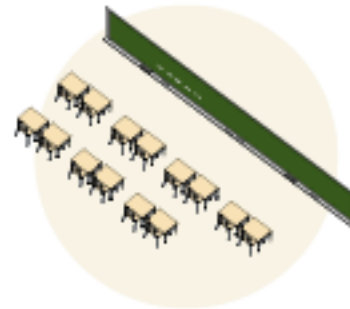
Affordable Living Space



Employment Opportunity



Public Transport



Vocational Training



Affordable Daily Life



Pedestrian System



Parking Space



Affordable Business Space



Diverse Public Space



Group Activity



Job Market



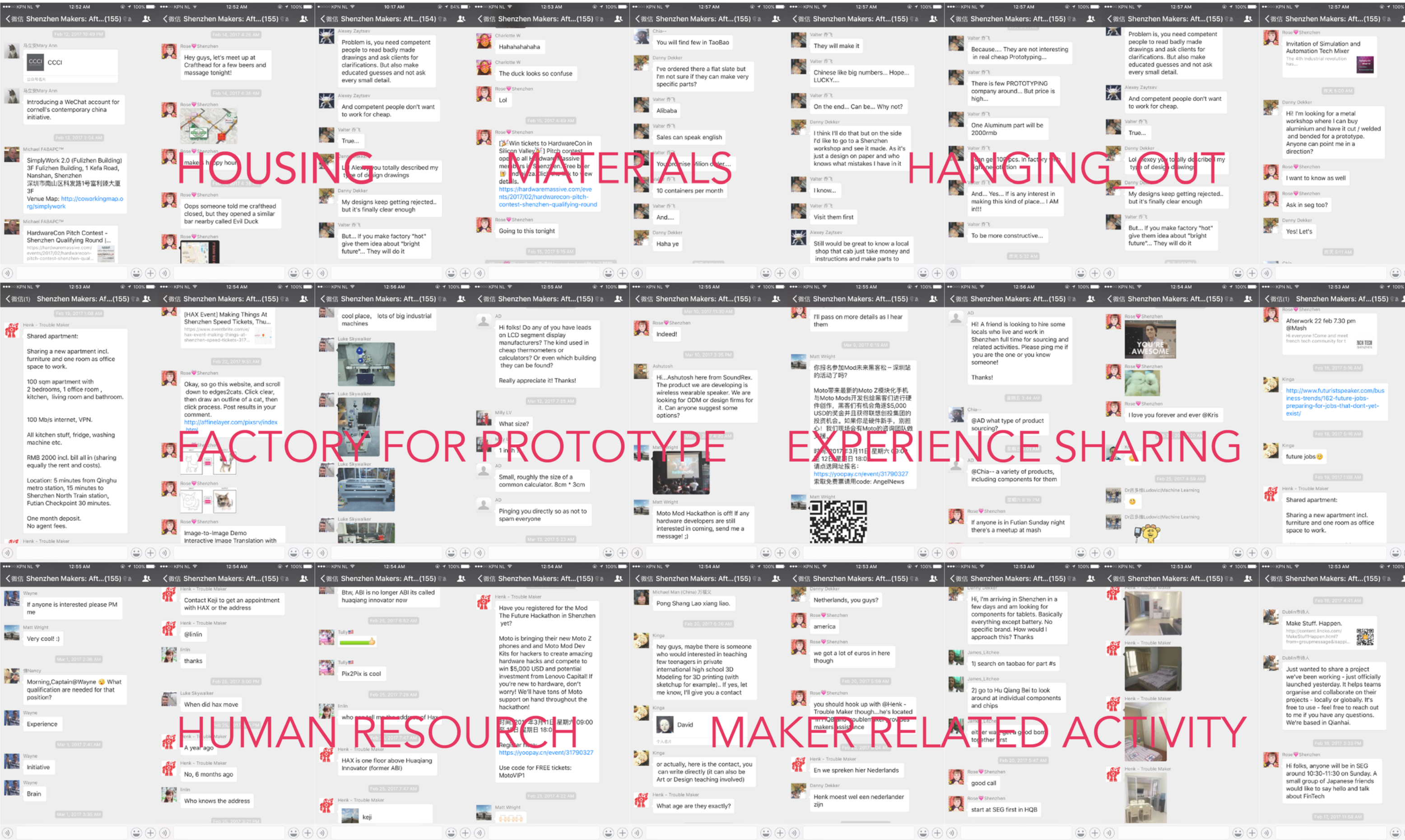
Affordable Working Space



Social Organization

Collective

Understanding the demands of migrants actually reflects the a kind of evolution of demands in their environment. It indicates the

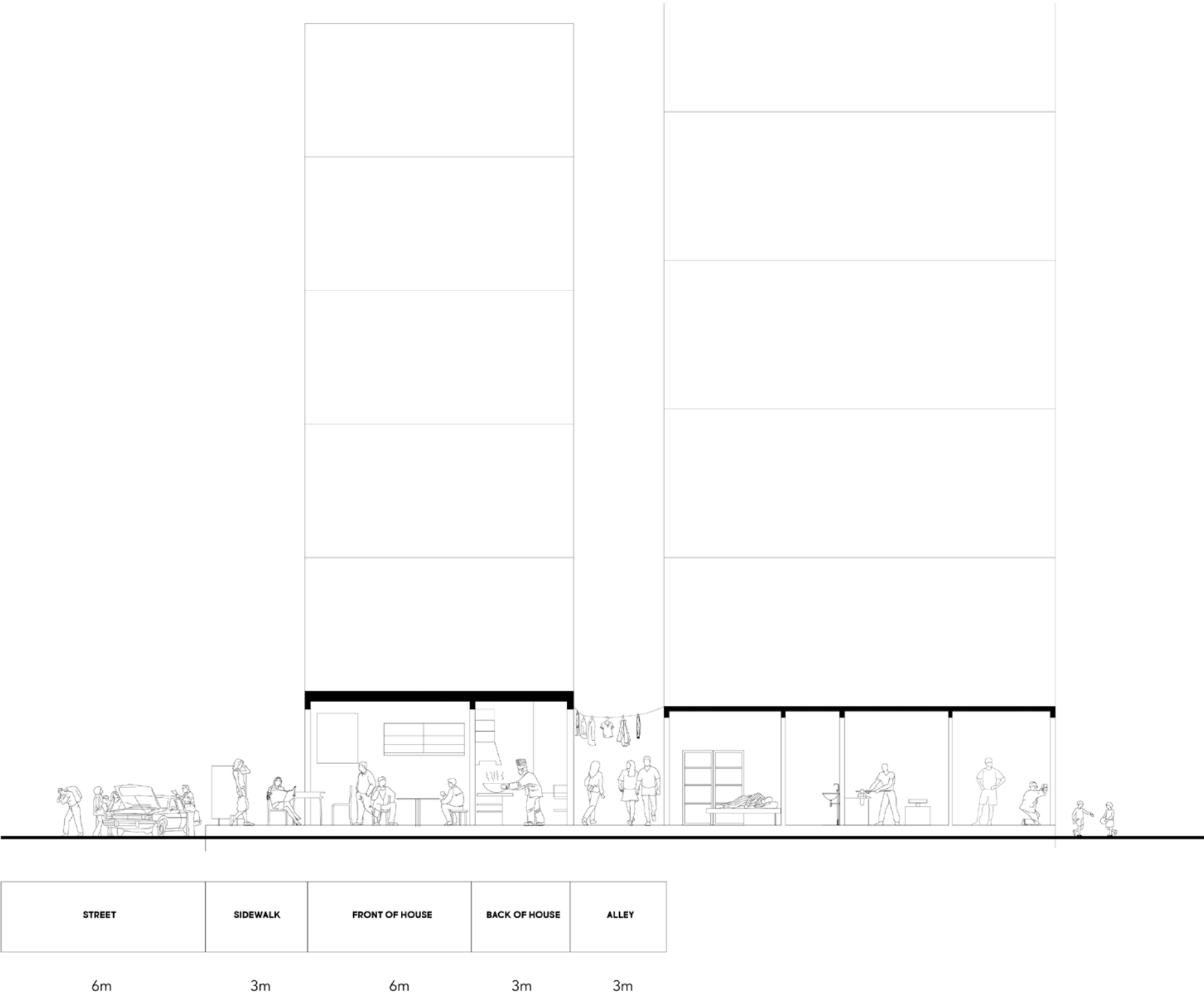


OBJECTIVENESS FOR MIDDLE SCALE

- +Provide Sharing Facilities for different group of people,
- +Provide Facilities for Makers which could help them work better in Urban Village,
- +Intergrade maker production with informal economy in urban village to achieve more resilience, critical mass



50 100 150 m





SCALES



ACTORS

MIGRANTS

←

MAKERS

Migrant Workers
White-Collars
Small Bussiness Owners

Villagers

Village Joint Stock Company

Urban Planning Bureau
Futian District Government
Developers

Urban Planning Bureau
Shenzhen Municipla Government

SHARED VISION

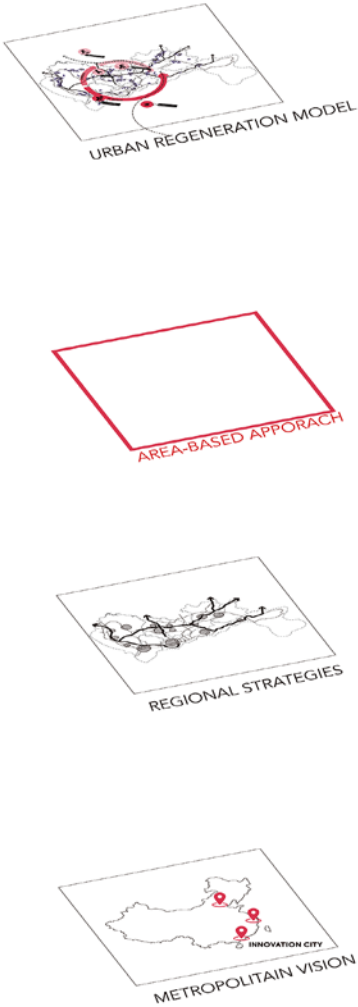
Better life quality

PROFIT

Huaqiangbei International
Maker Center

MAKER CITY

CURRENT PLANNING
SYSTEM



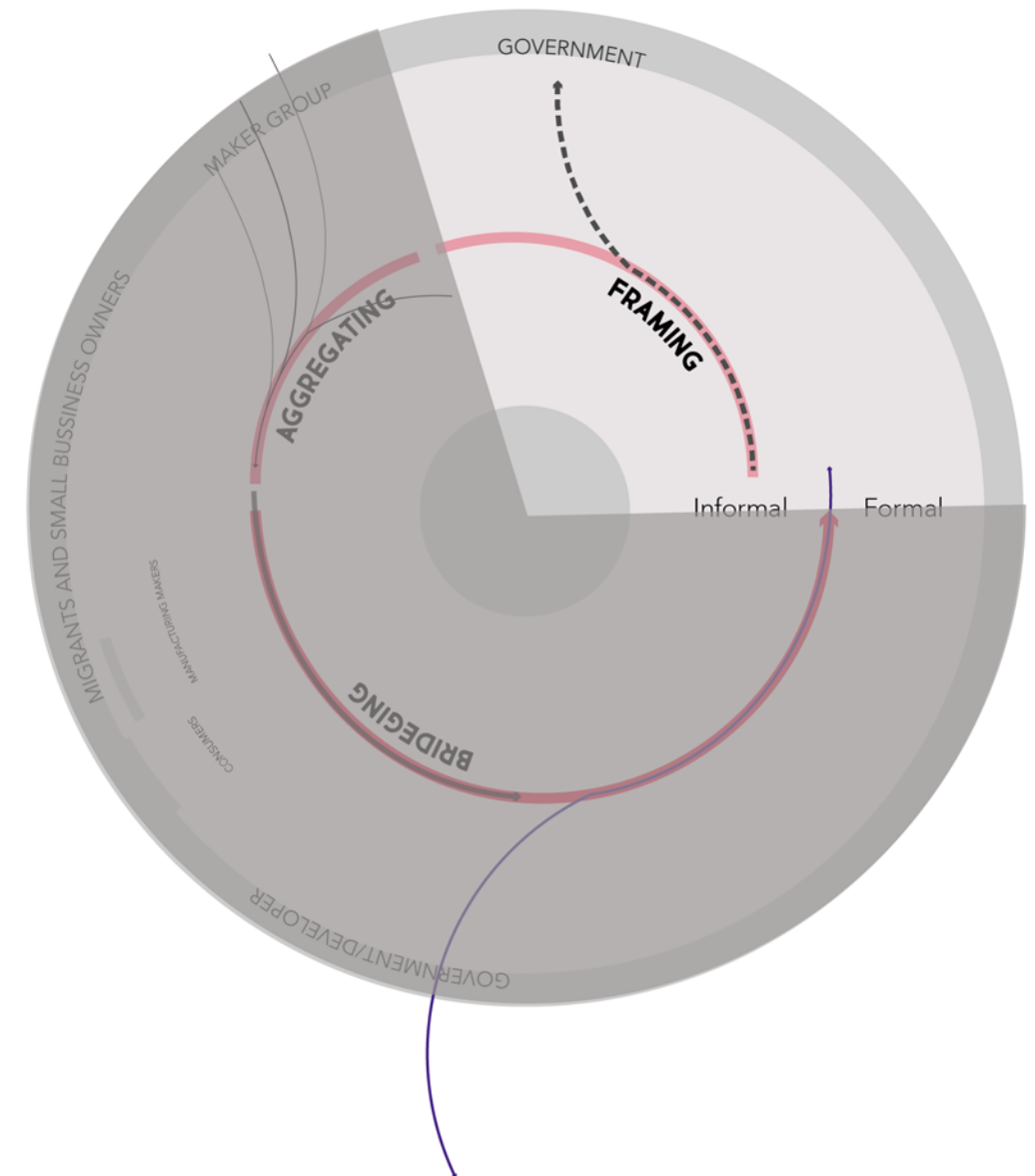
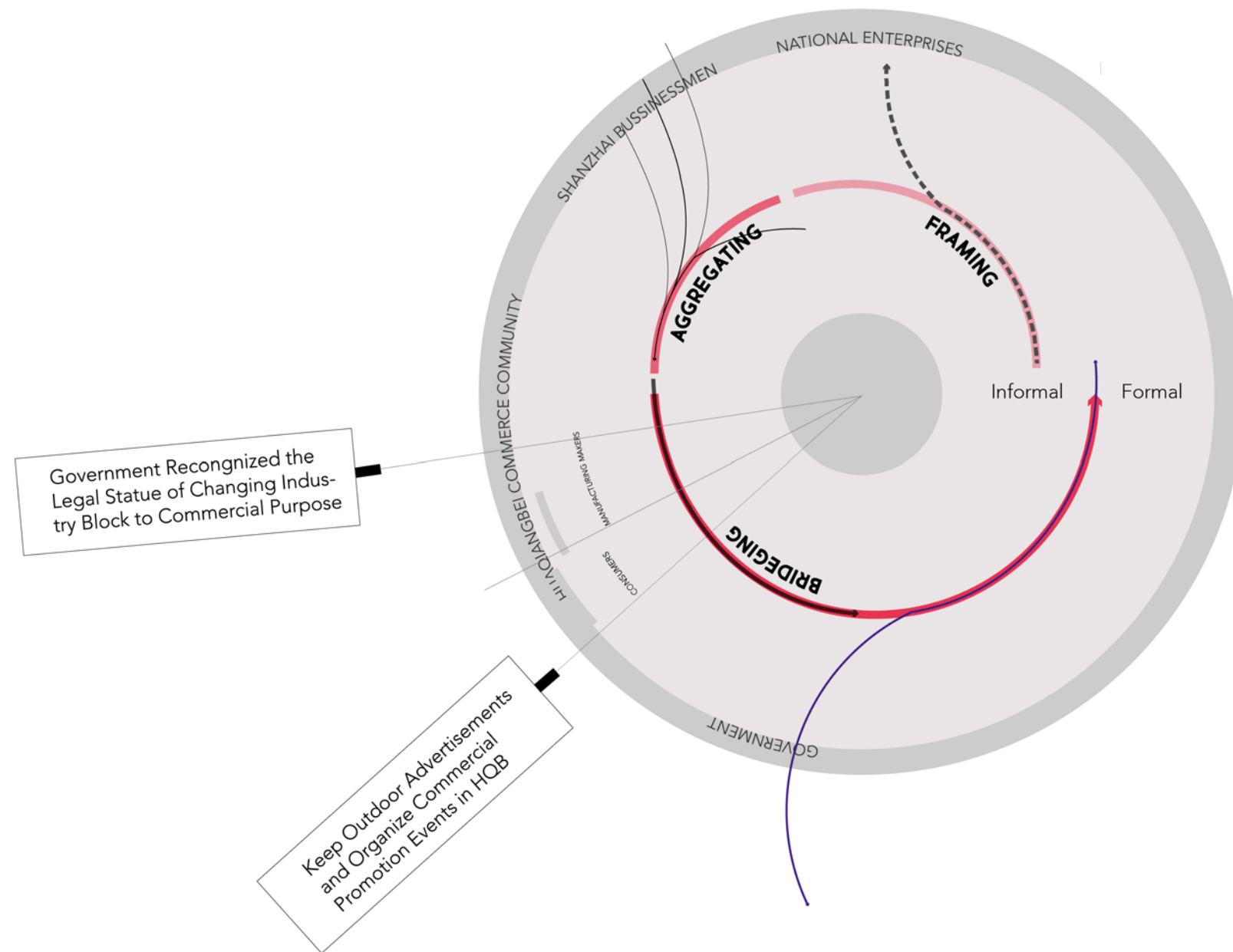
POSSIBLE ACTORS

Creative Workers

Enterprises
NGOS

Enterprises

STAGE I

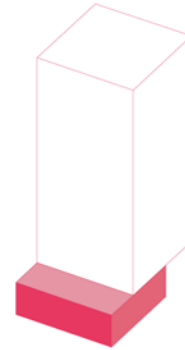




SMALL SCALE STRATEGIES



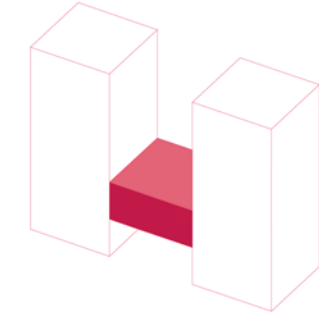
MIXED-USE



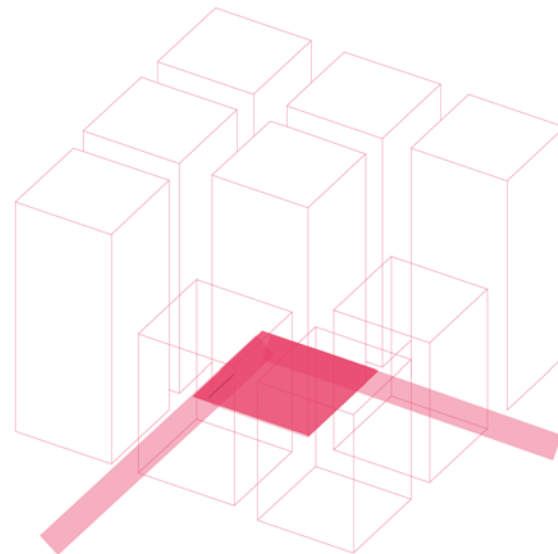
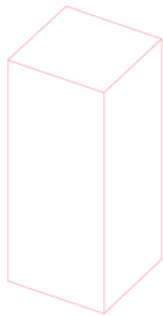
PUBLIC SPACE



ROOF AREA AS
COMMUNITY SPACE



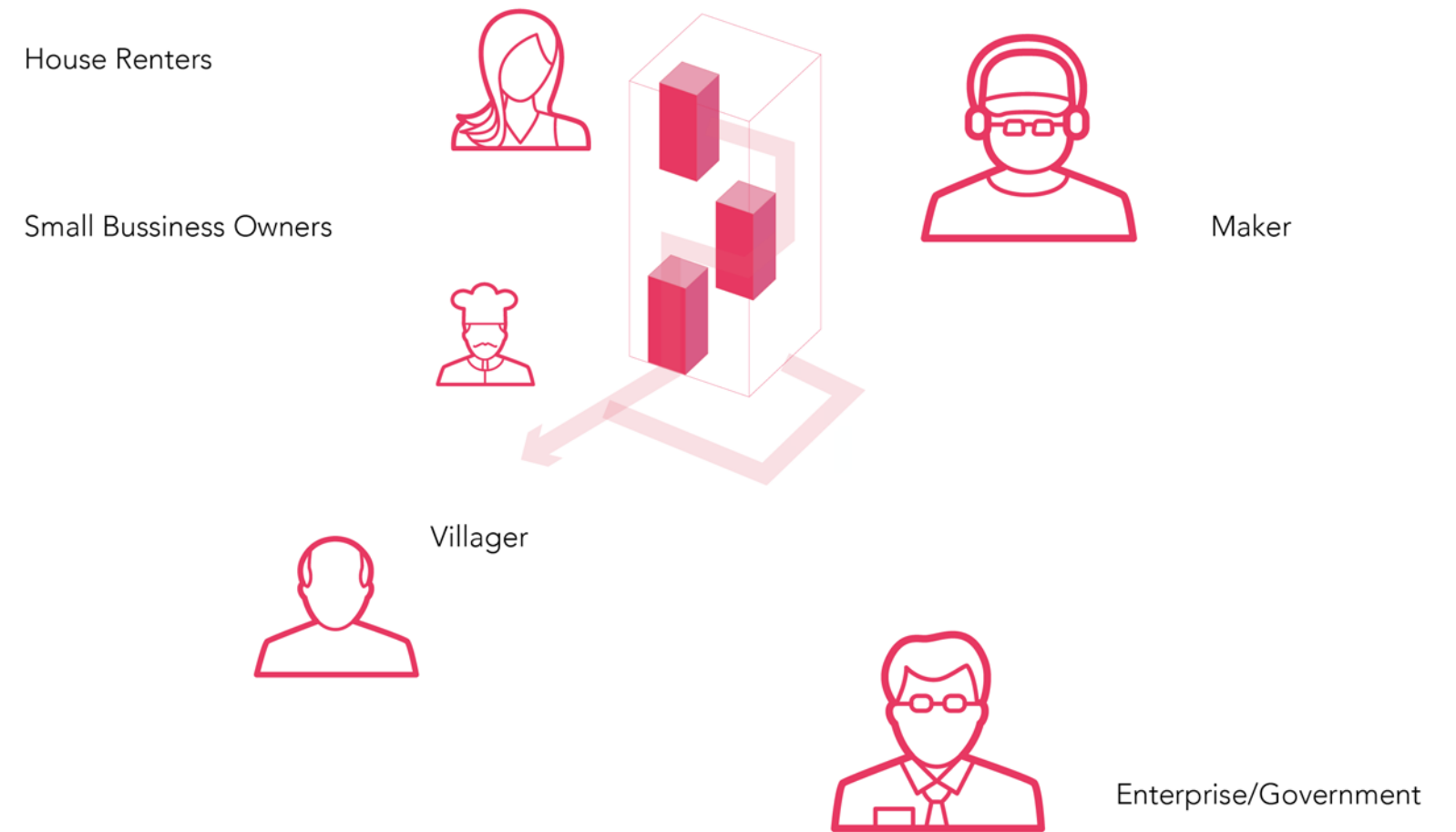
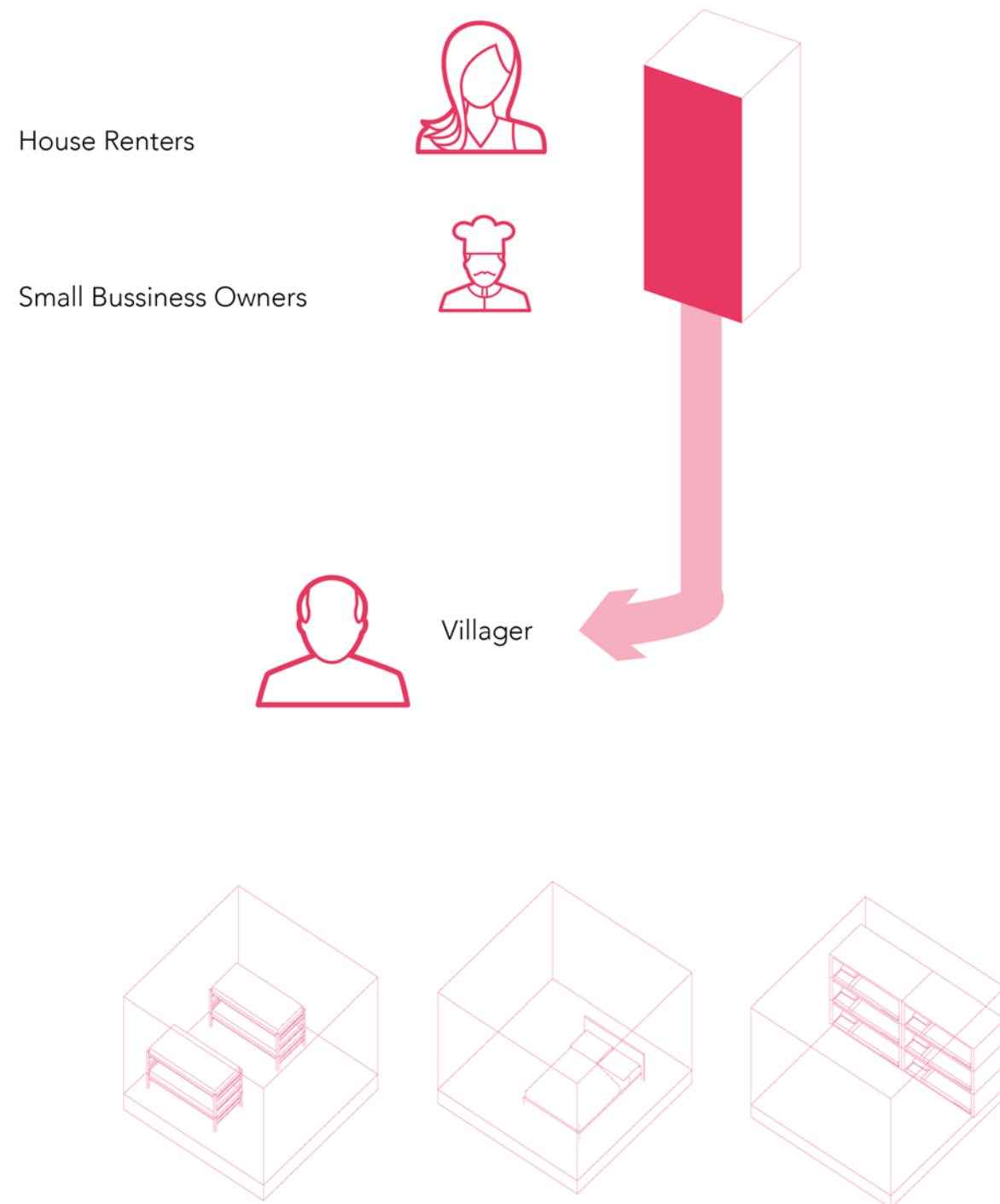
EXTENSION BETWEEN BUILDINGS



STREET CONNECTION

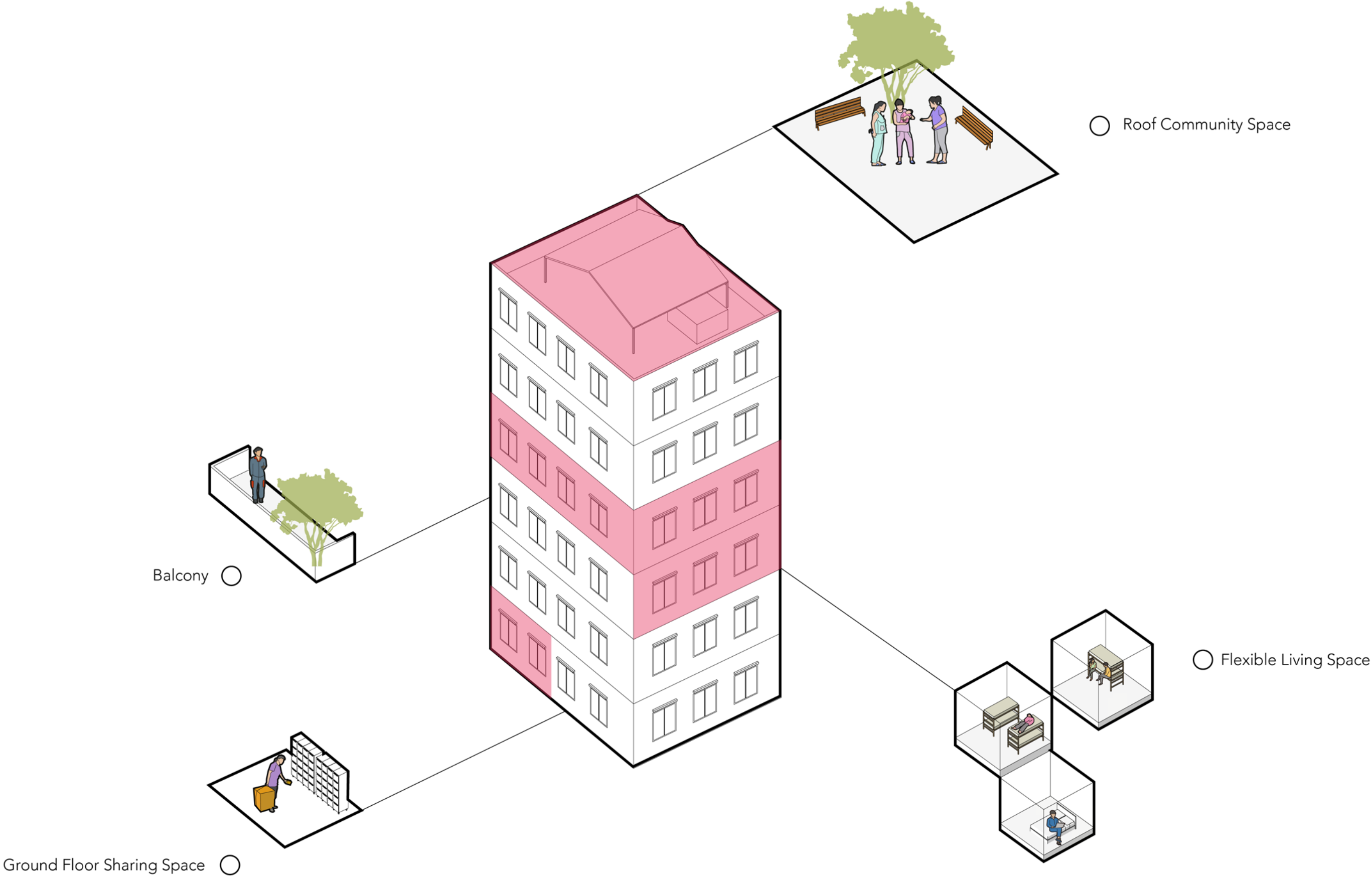
Intervention will focus on single building and strategies proposed will use building itself as source of sharing space. Instead of only for residential usage, new group people-maker would bring new facilities to buildings along with economy model for micro scale.

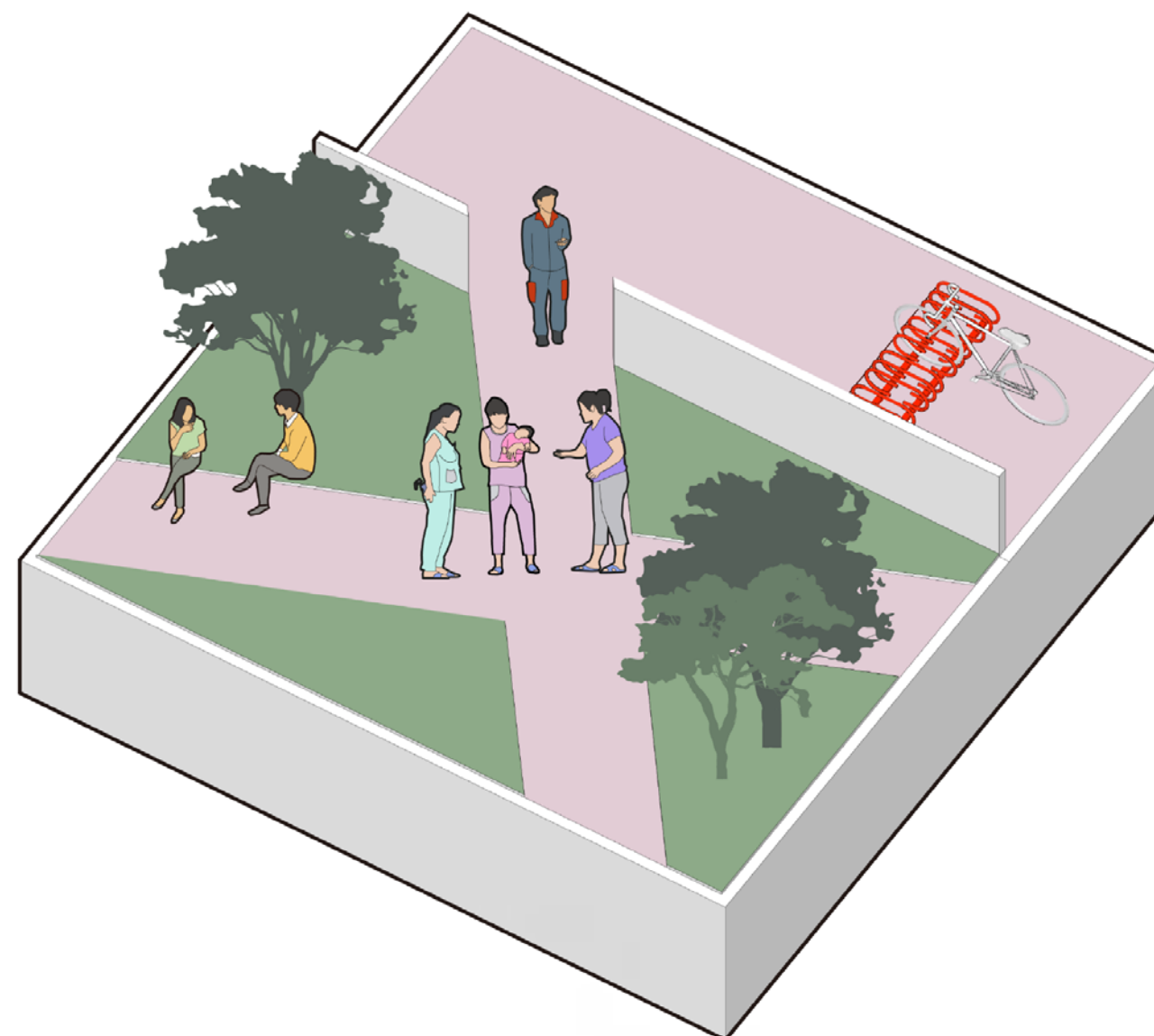
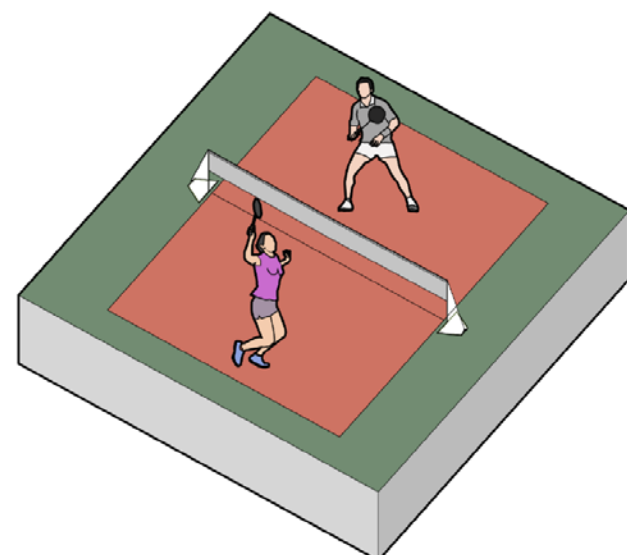
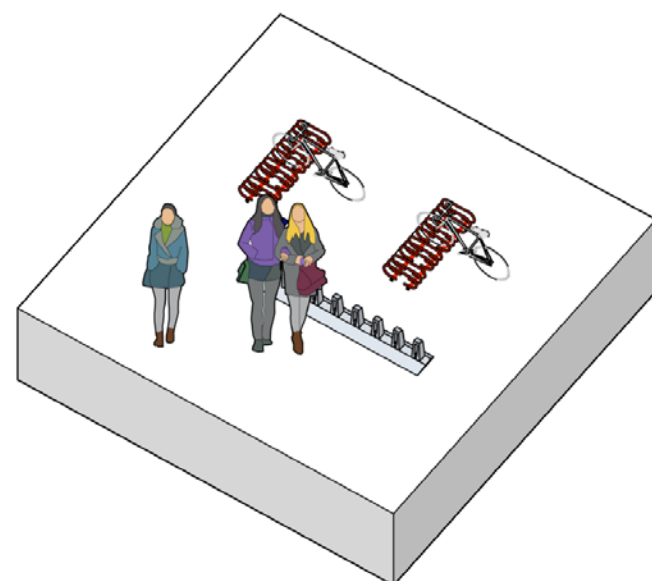
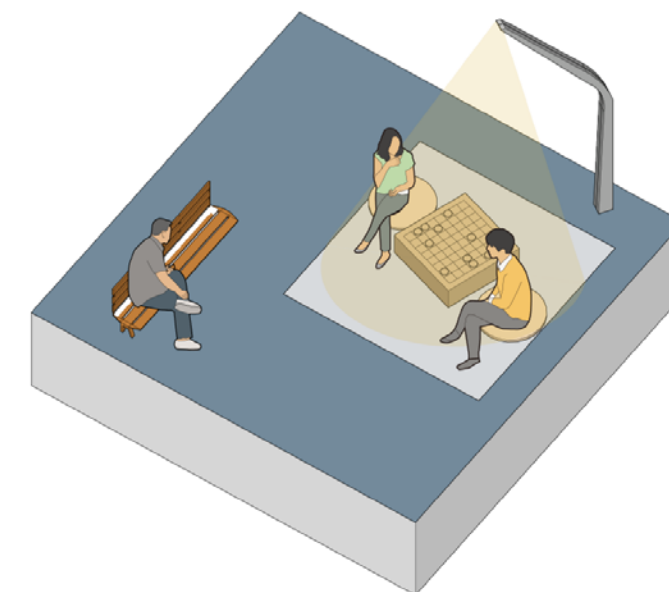
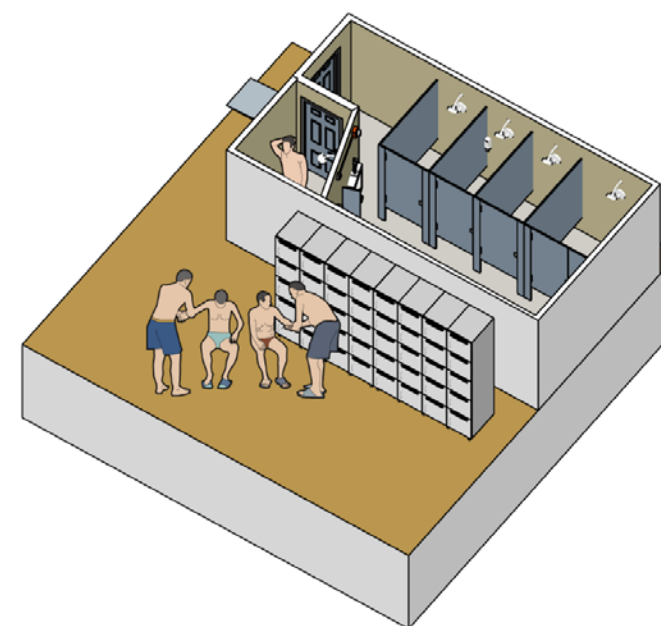
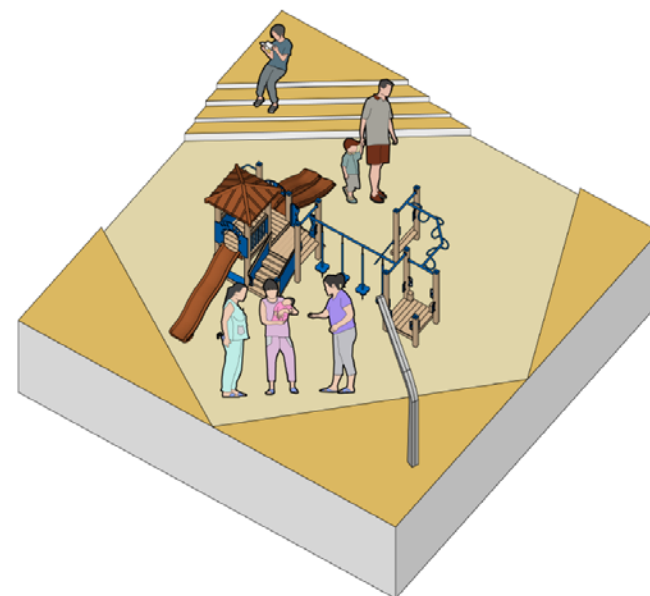
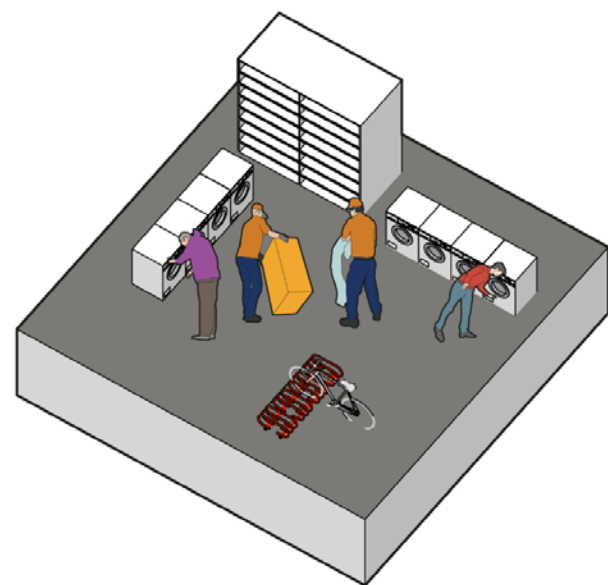
SMALL SCALE STRATEGIES



In term of co-development model, villagers will be invloved long term investment. Around 10-20% of the buildings could be used for makers specific. Makers are aloowed to change interior space by themselves and get cheap renting fee. As a return, villagers could get certain amount of the interest by maker or government.

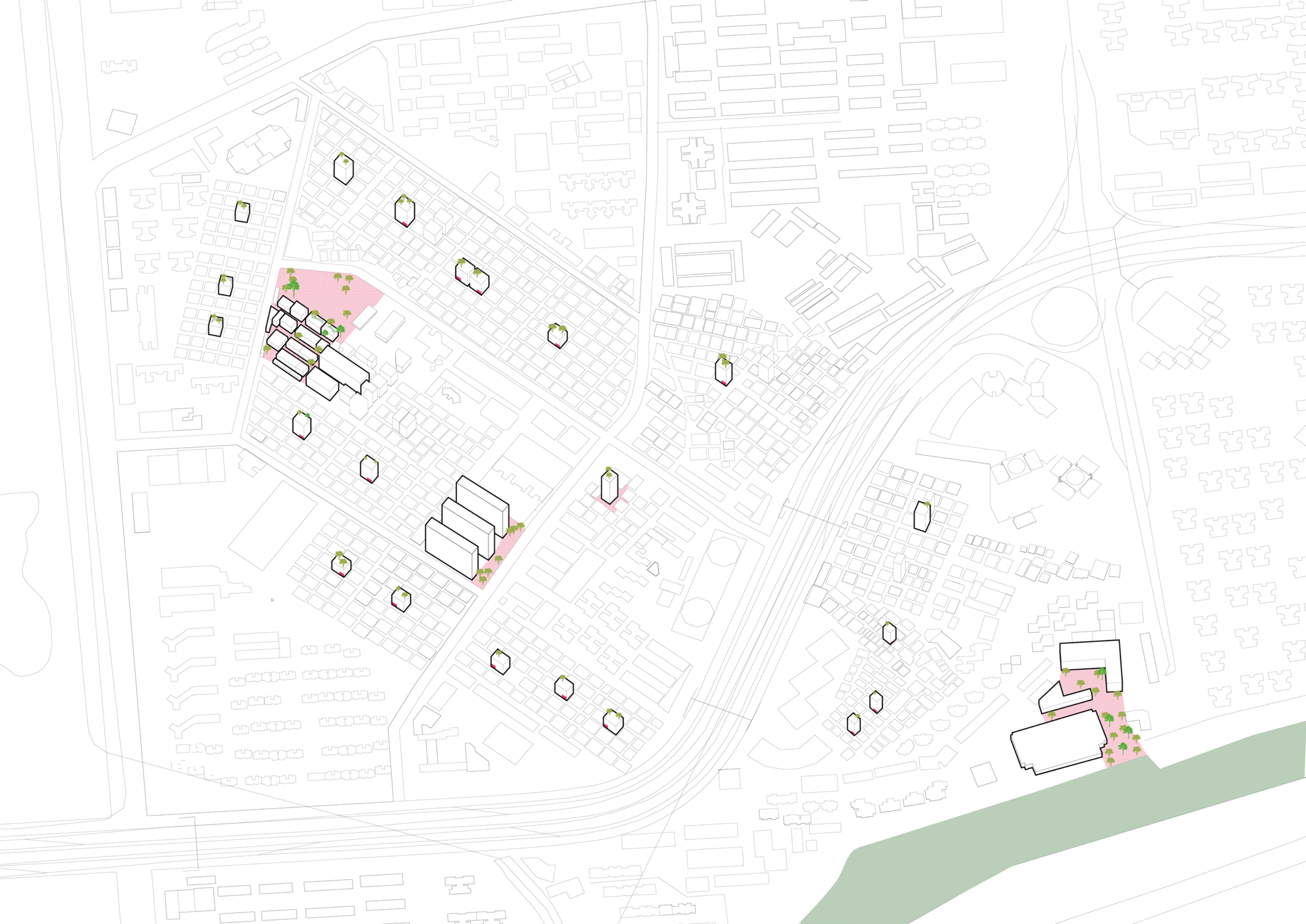
ACTIONS FOR SMALL SCALE INTERVENTIONS

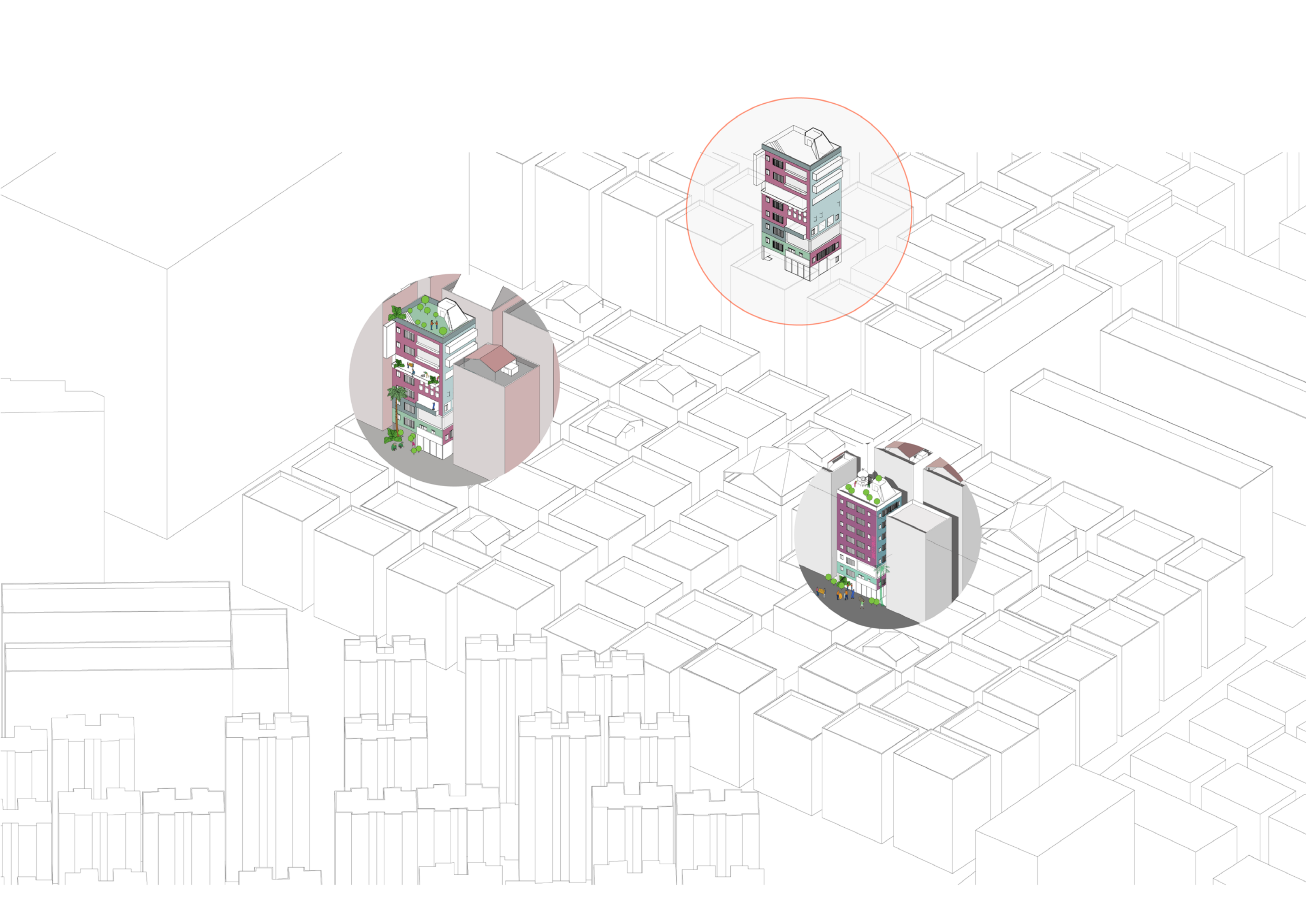




Based on the value of sharing to enlarge the chance for communication among migrants and also create more income for house owners

SHARING FACILITIES





Working Space for Makers



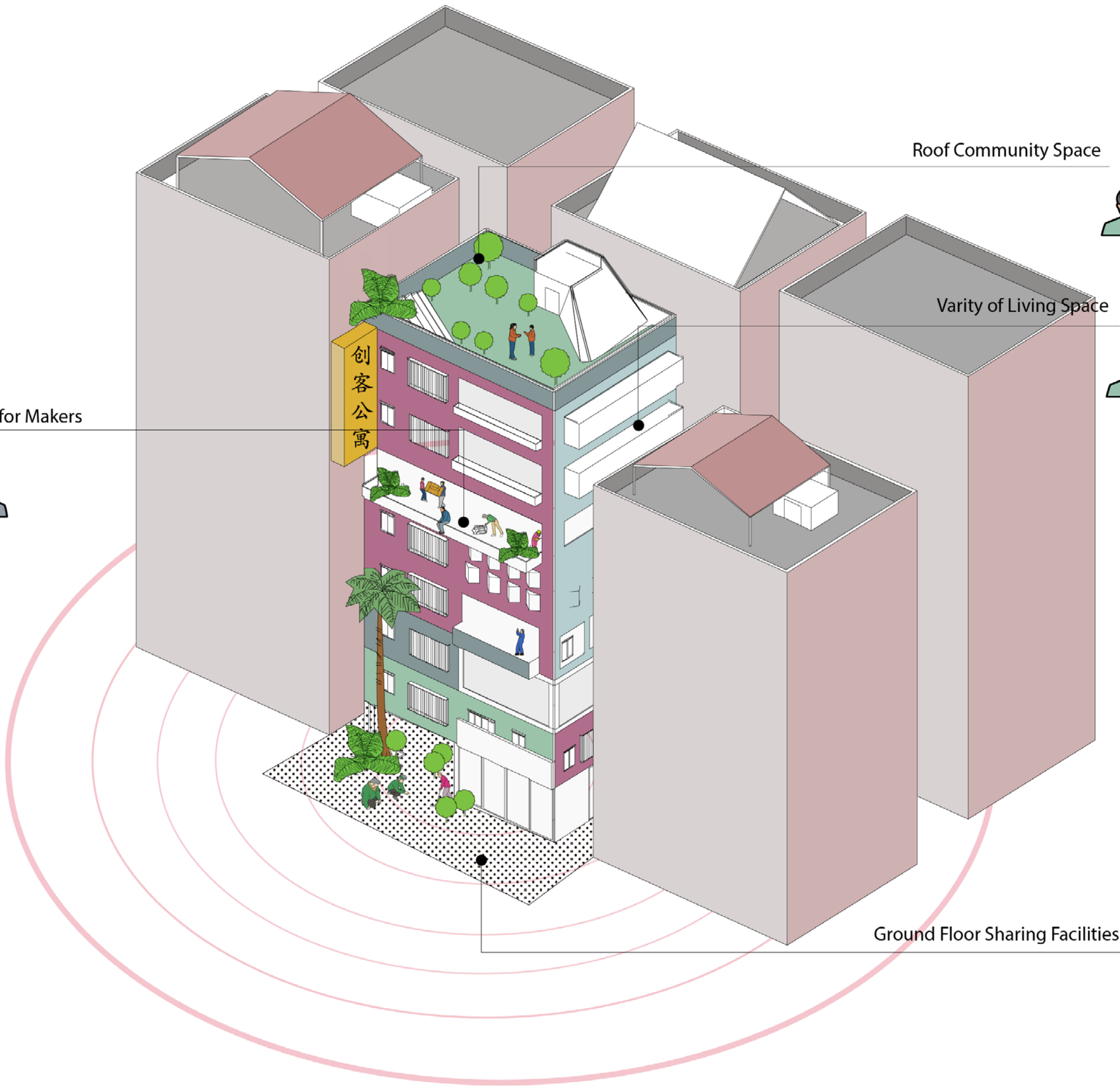
Roof Community Space



Variety of Living Space



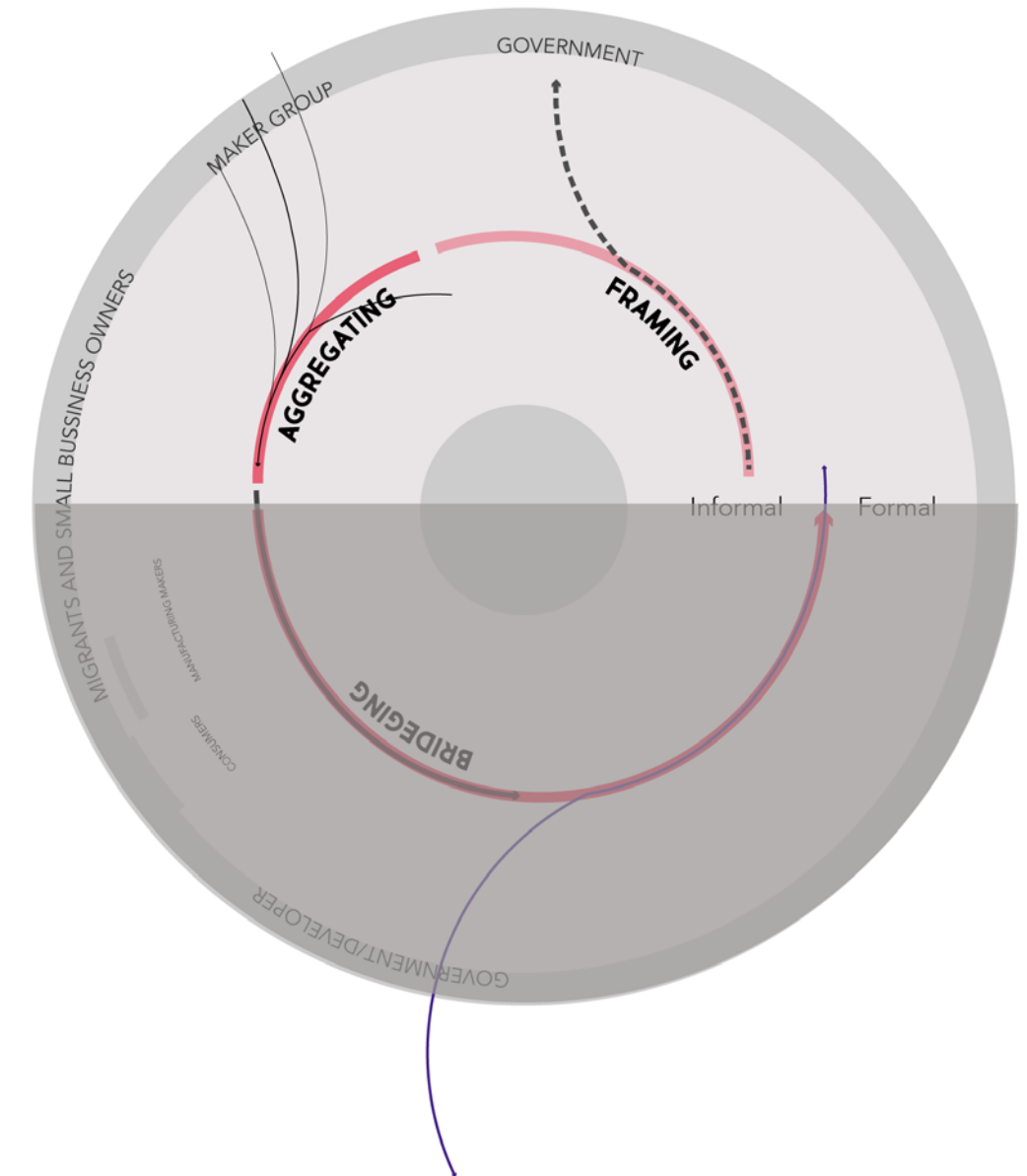
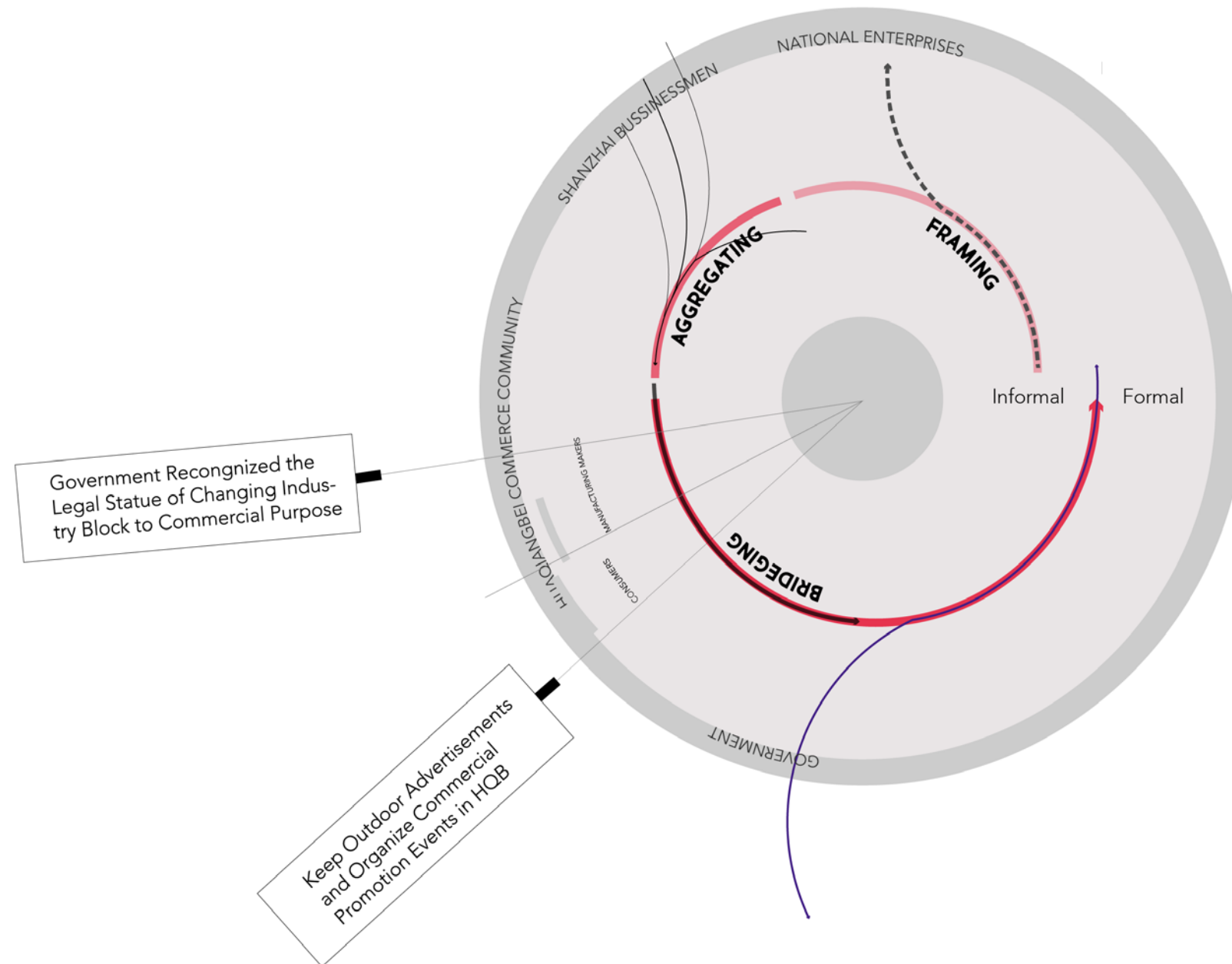
Ground Floor Sharing Facilities



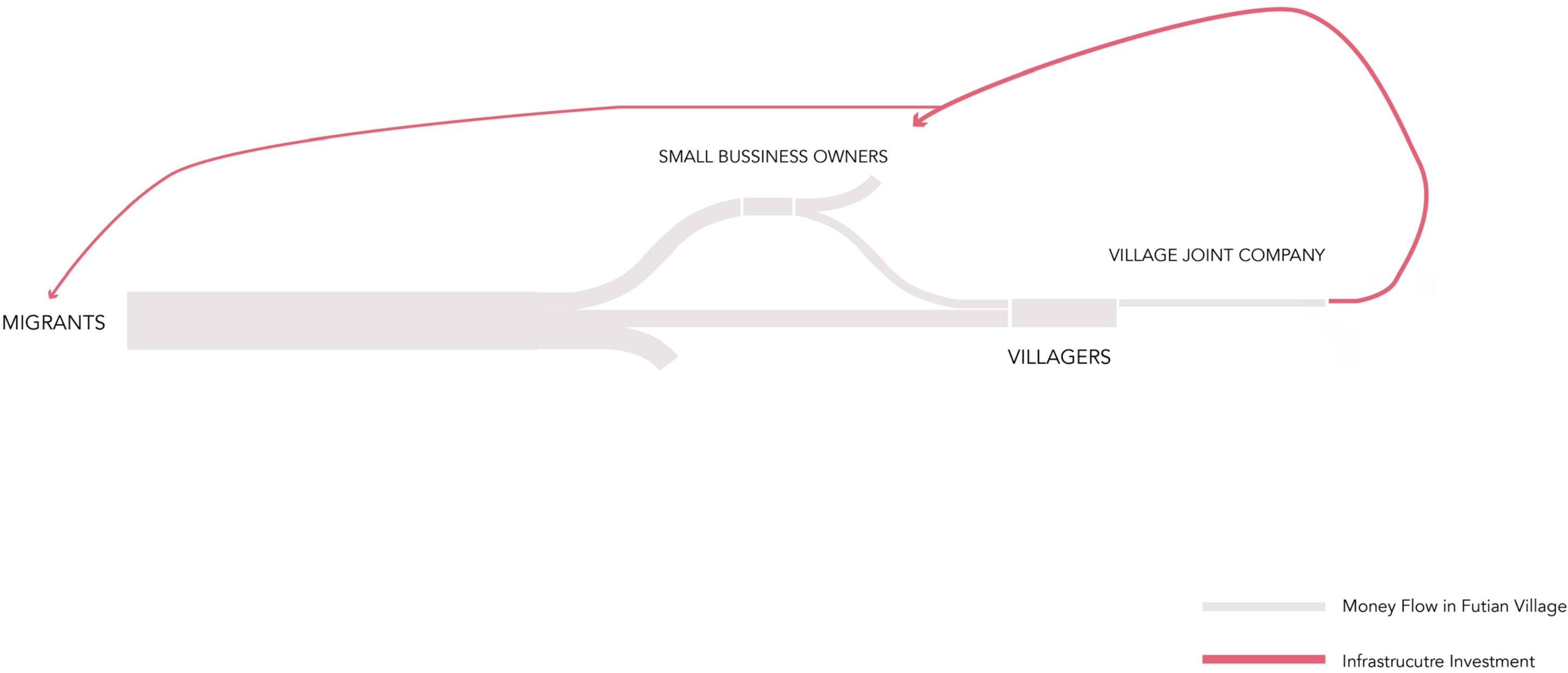




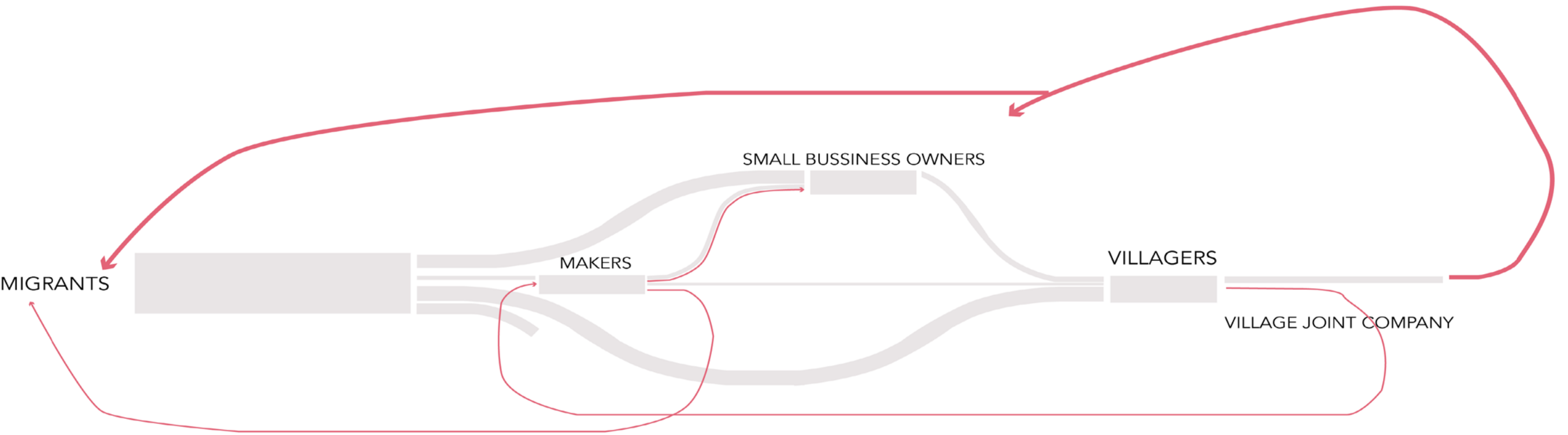
STAGE II



ECONOMY MODEL IN URBAN VILLAGE

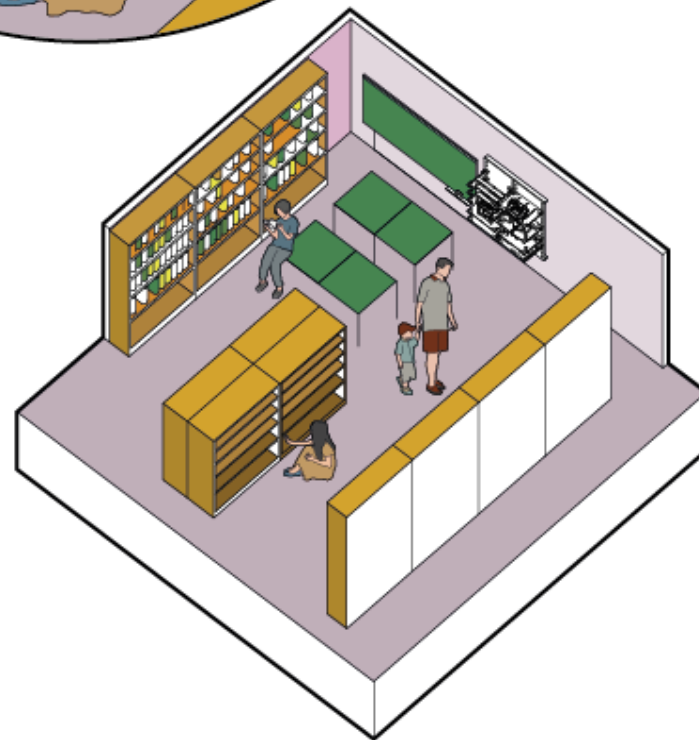
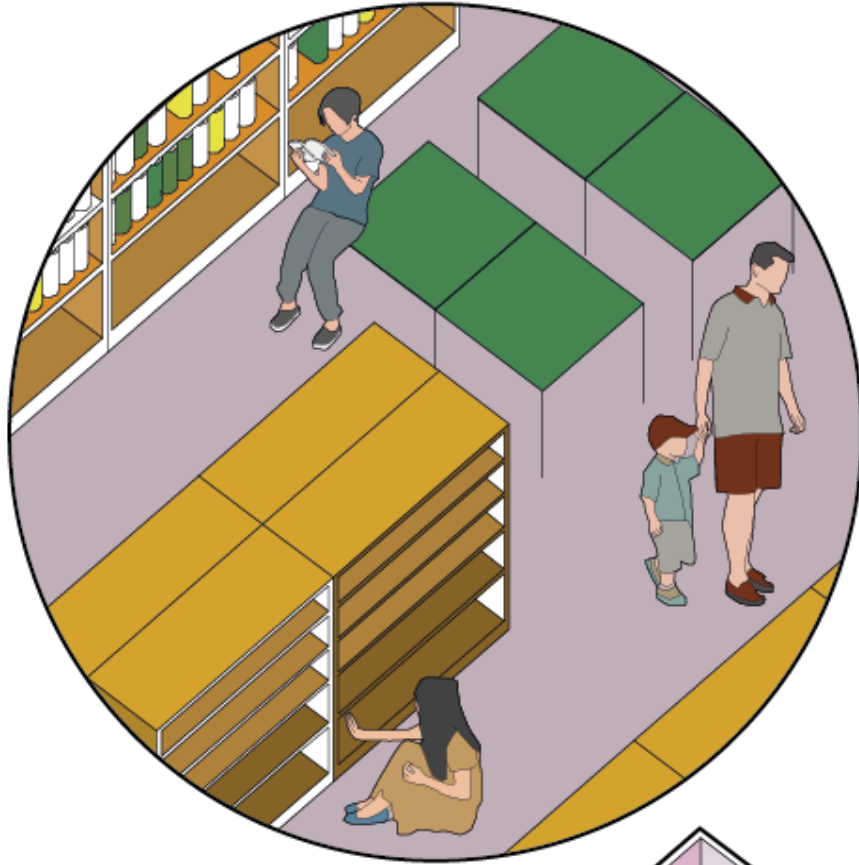


ECONOMY MODEL IN URBAN VILLAGE

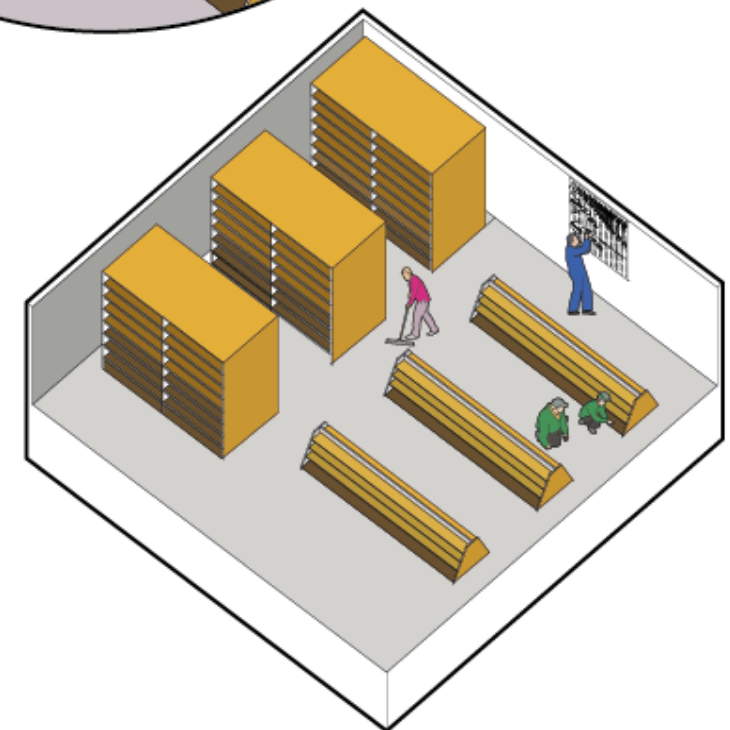
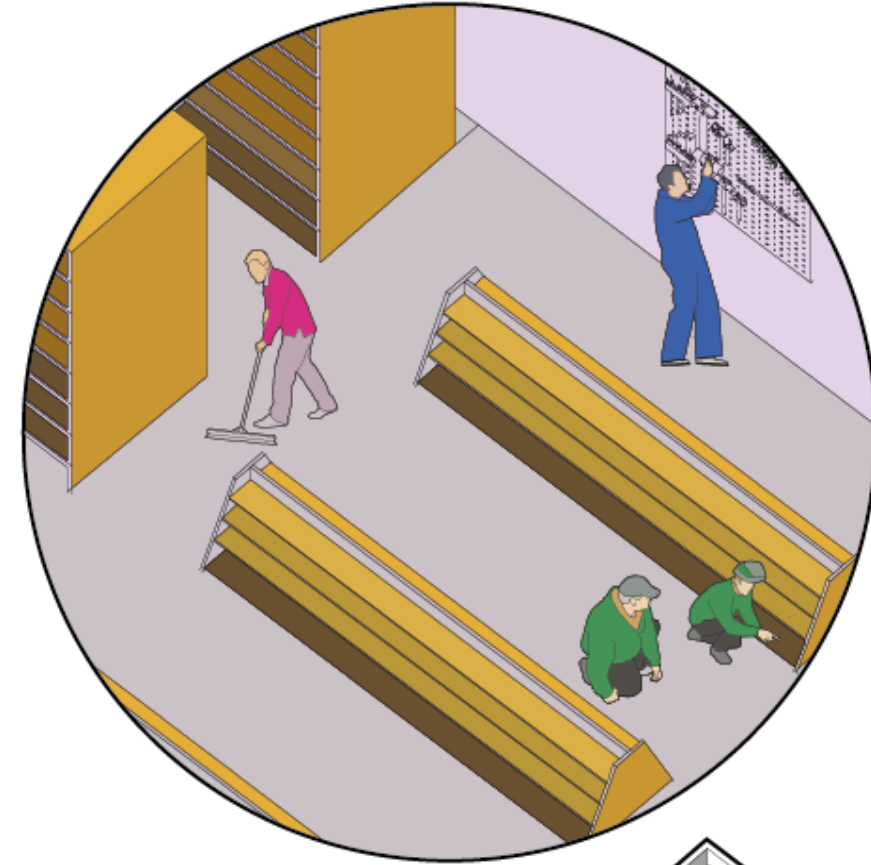


Money Flow in Futian Village

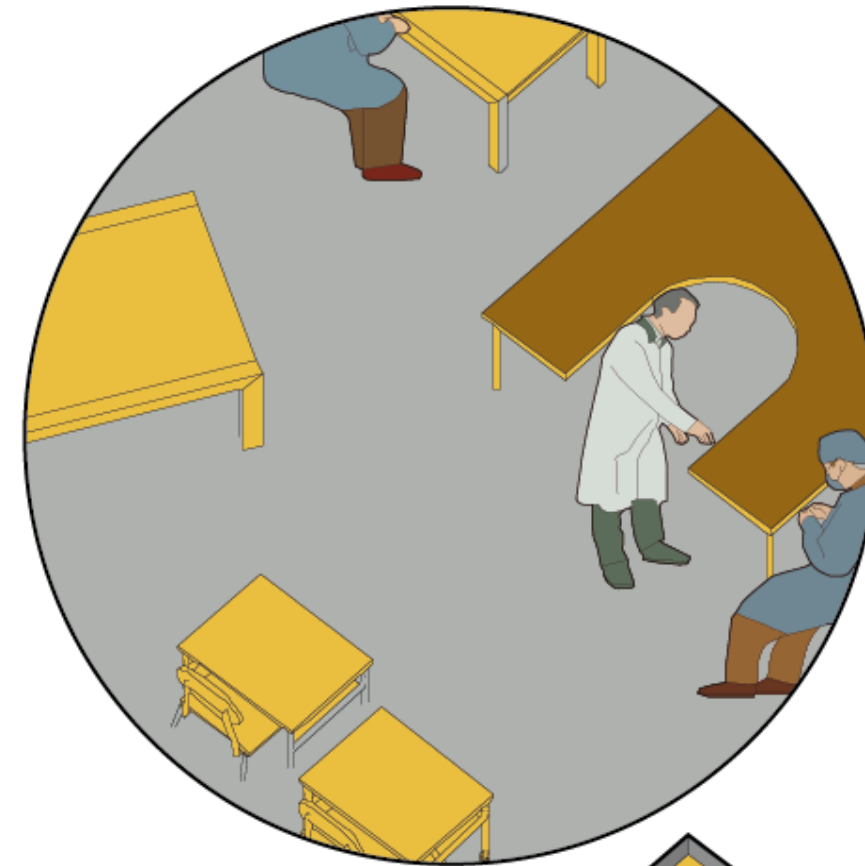
Infrastrucutre Investment



MAKERSPACE IN LIBRARY



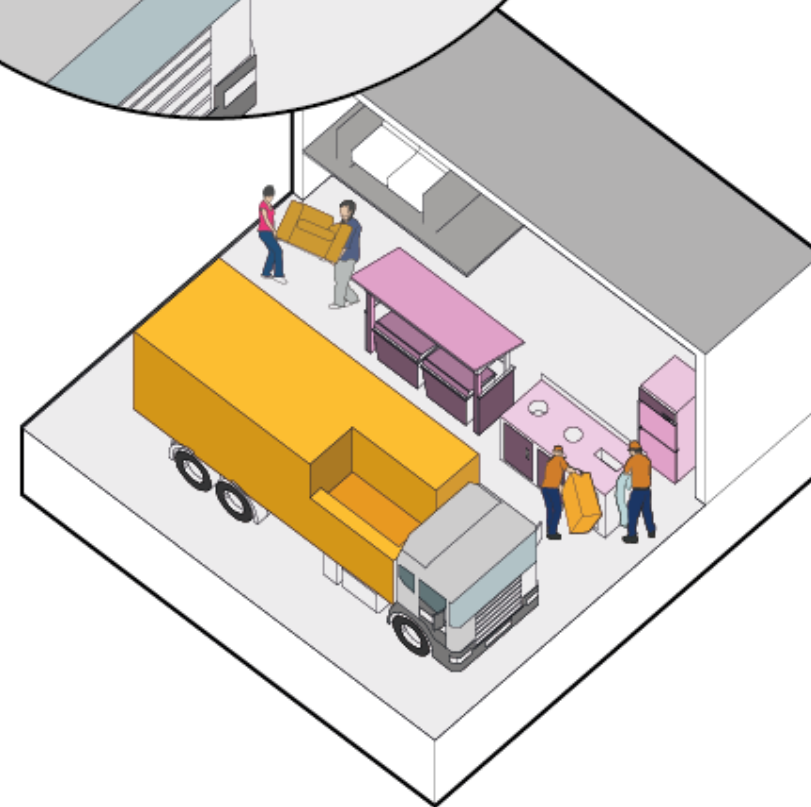
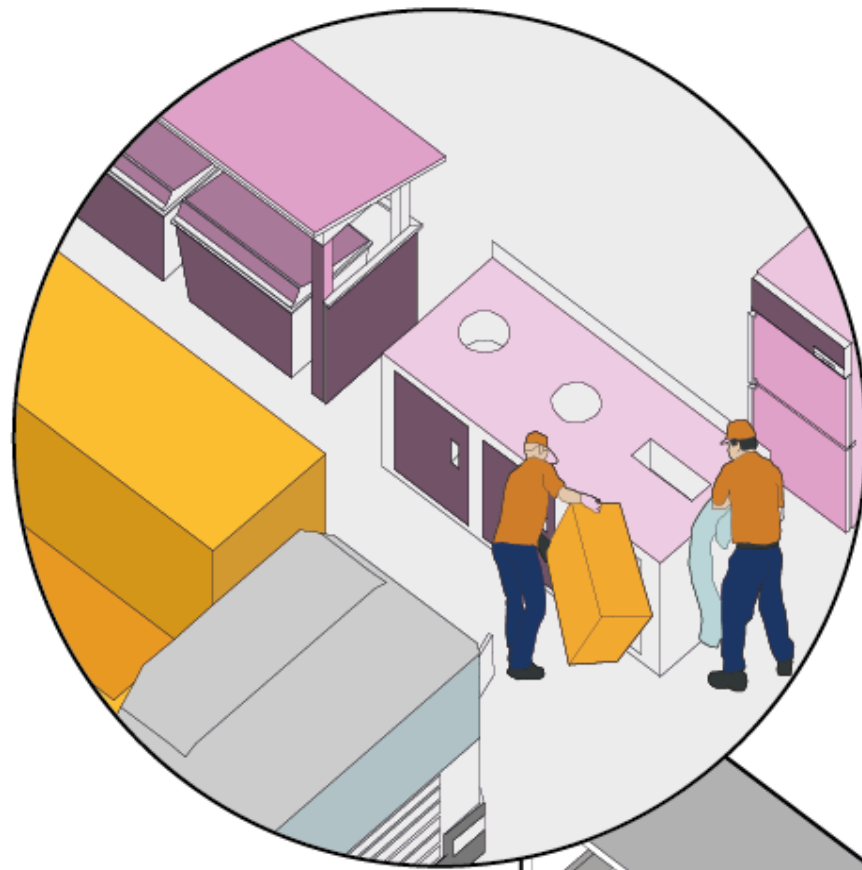
MATERIAL SHOP



PRINTING SHOP



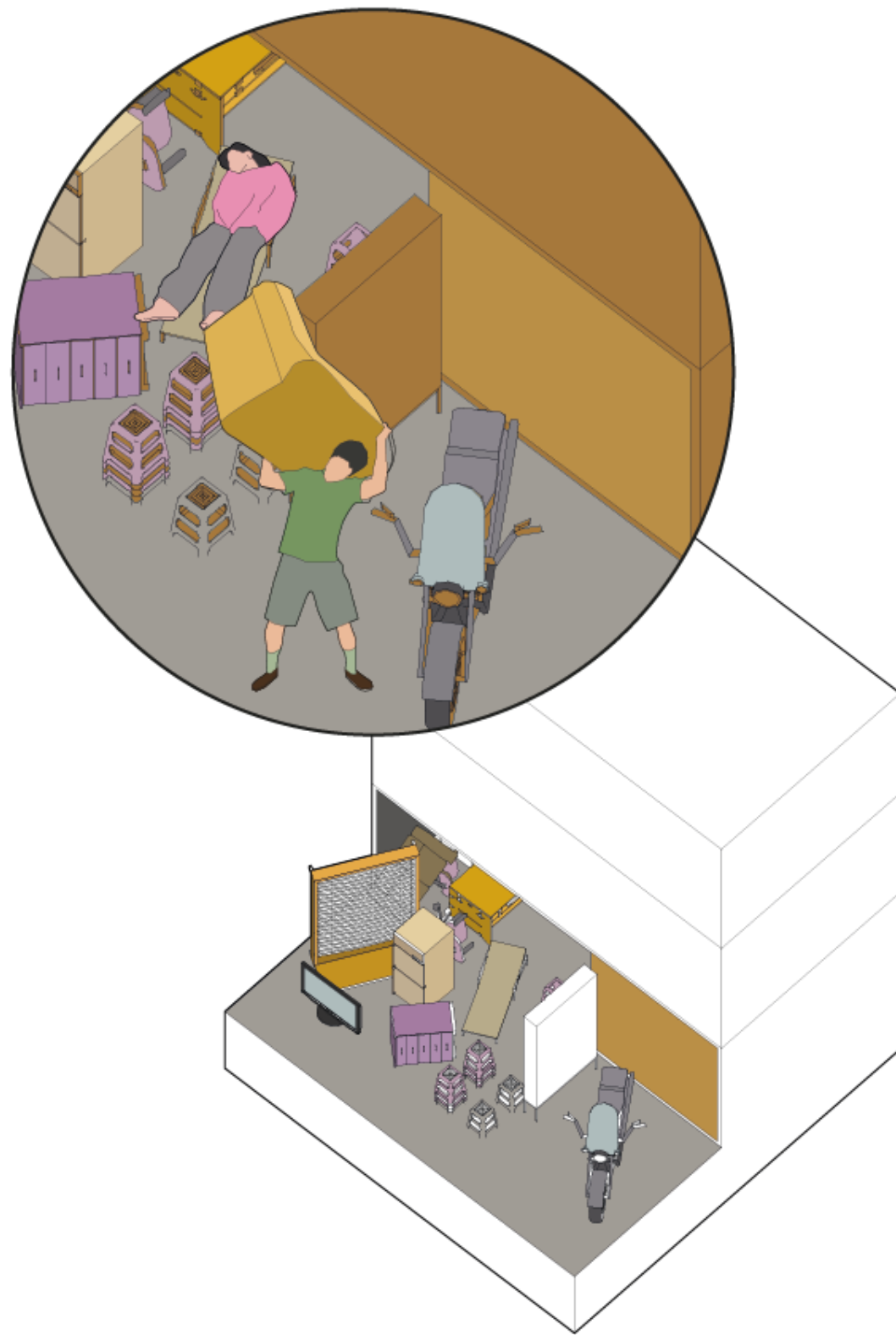
VOCATIONAL SCHOOL



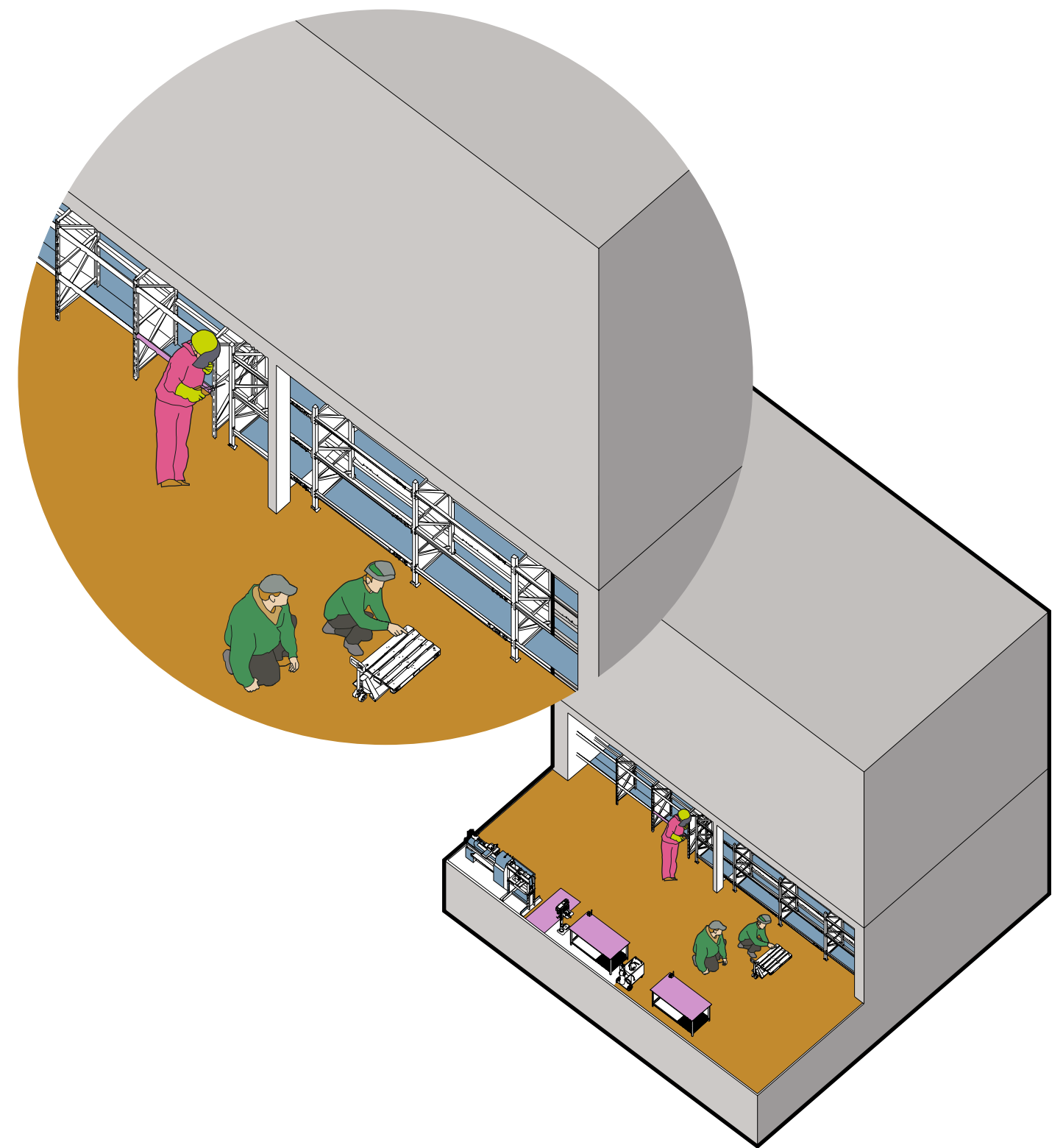
RECYCLE CENTER



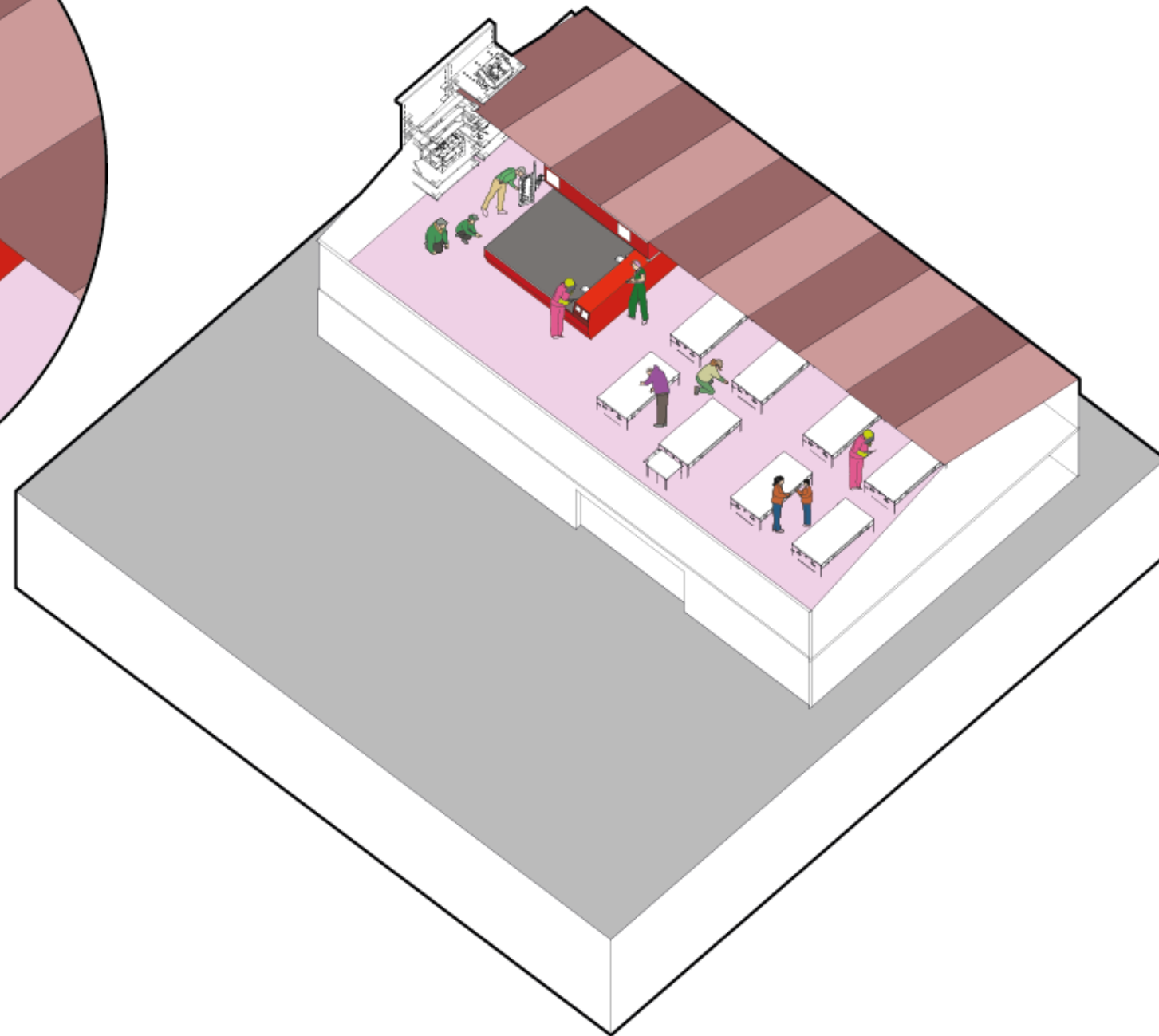
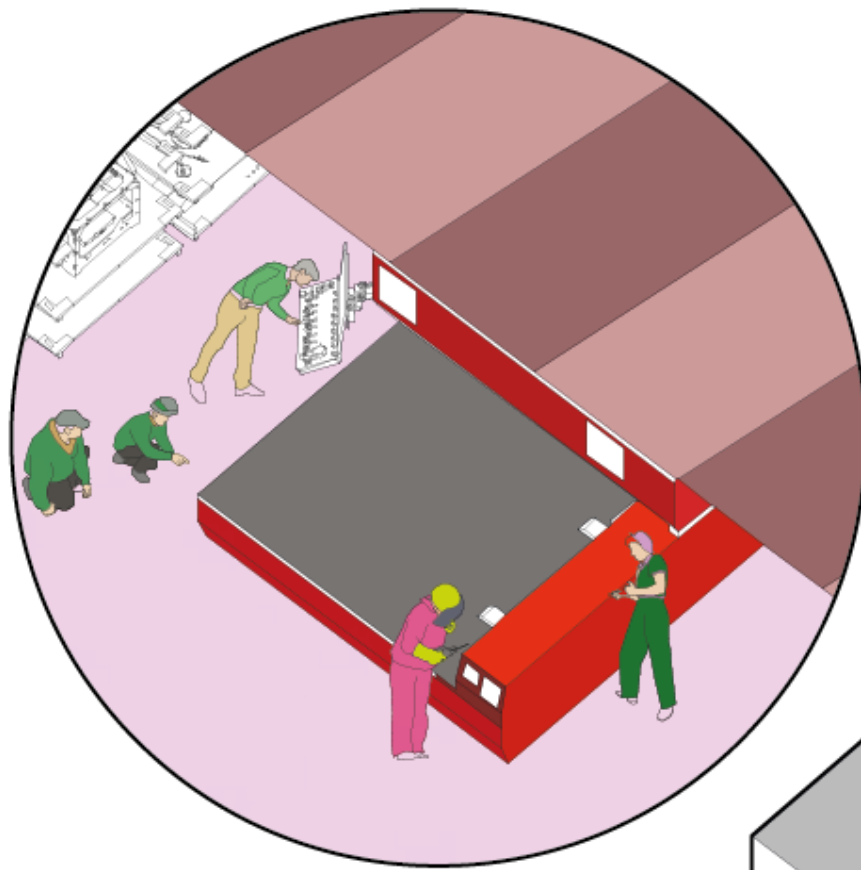
ELECTRONIC SHOP



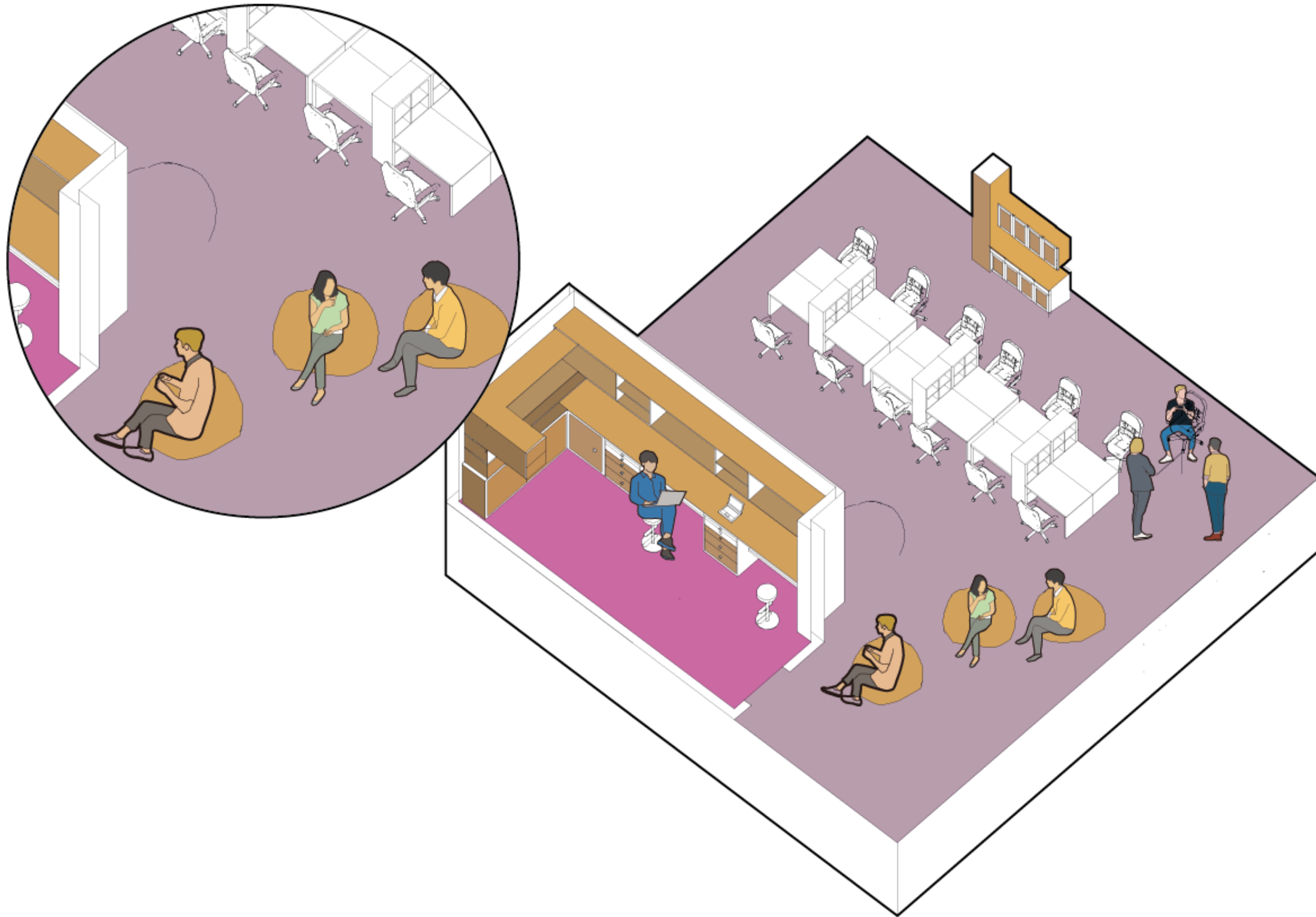
SECOND HAND FURNITURE SHOP



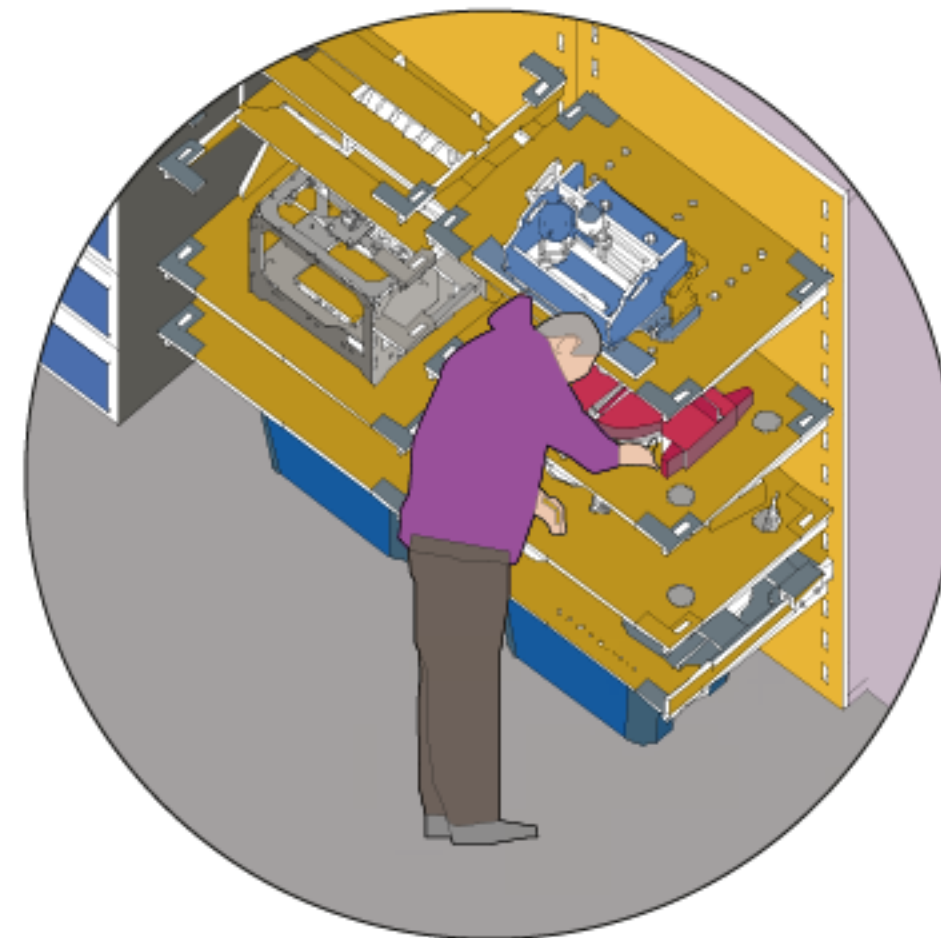
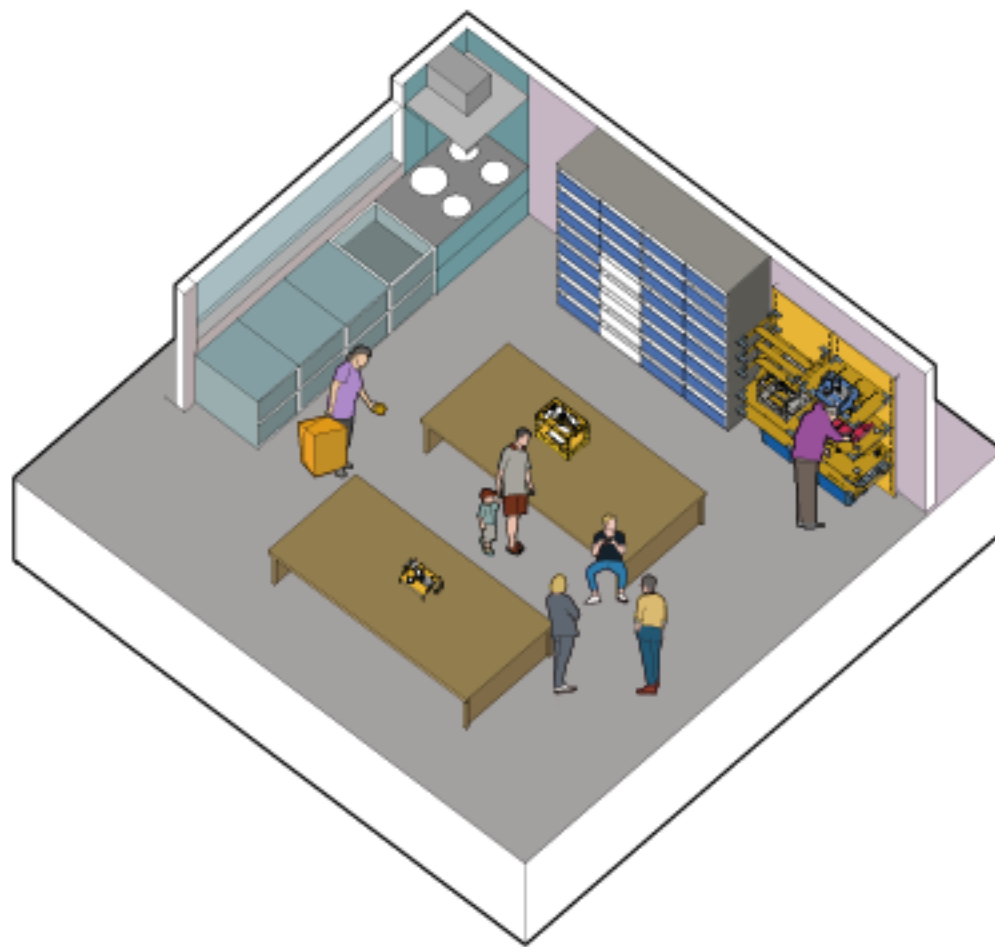
METAL SHOP



PROTOTYPE FACTORY

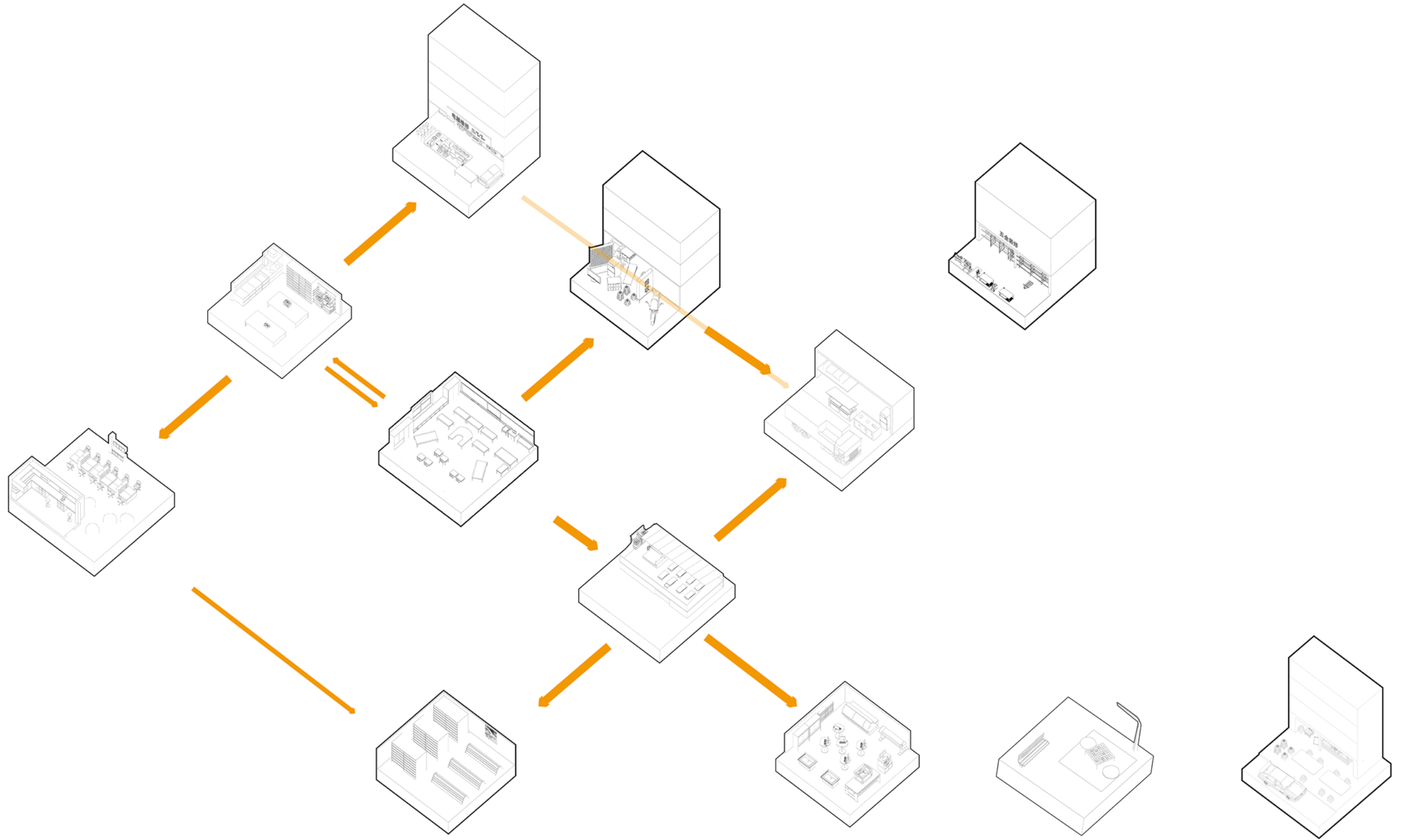


CO-WORKING SPACE

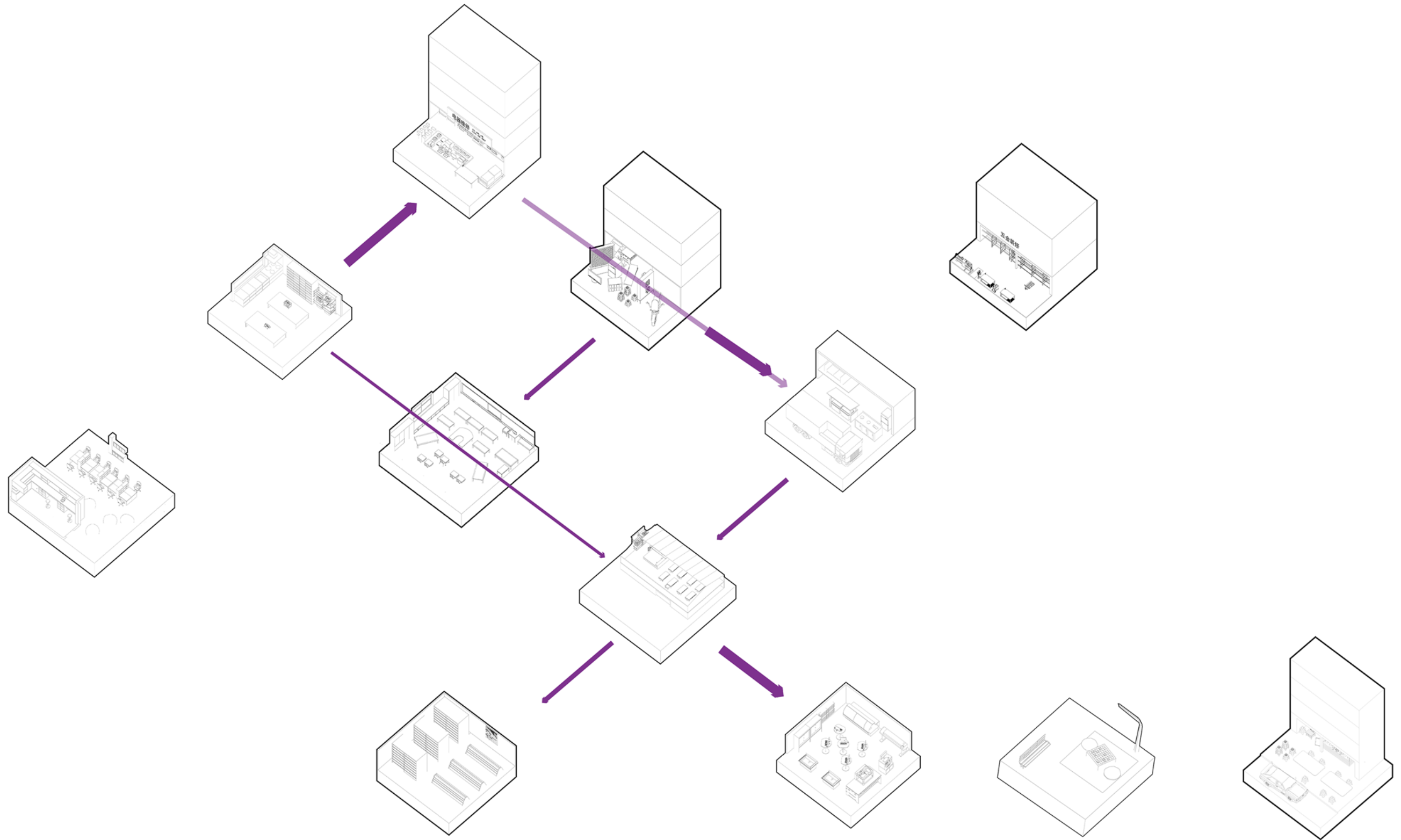


Makerspace

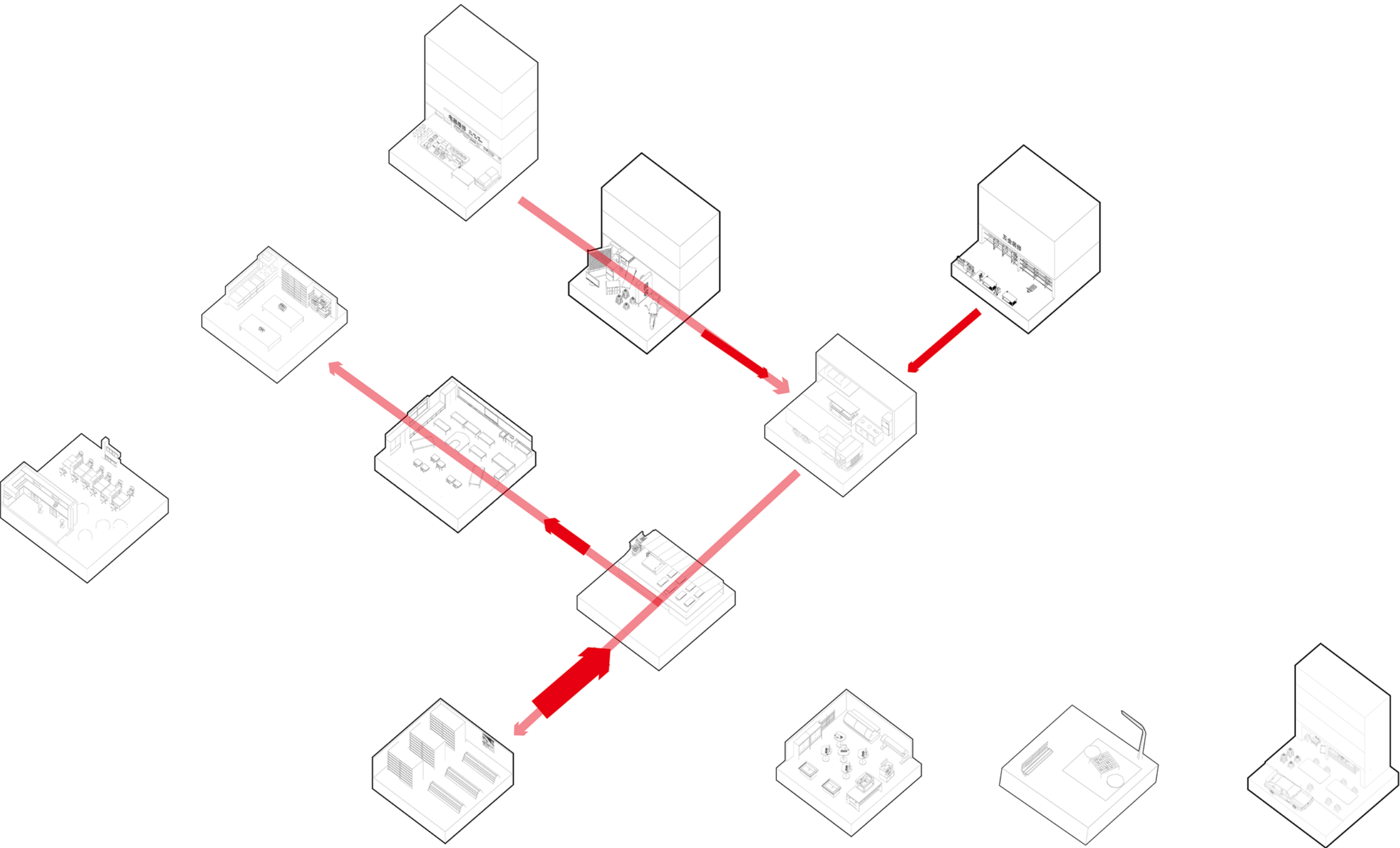
FLOW OF KNOWLEDGE

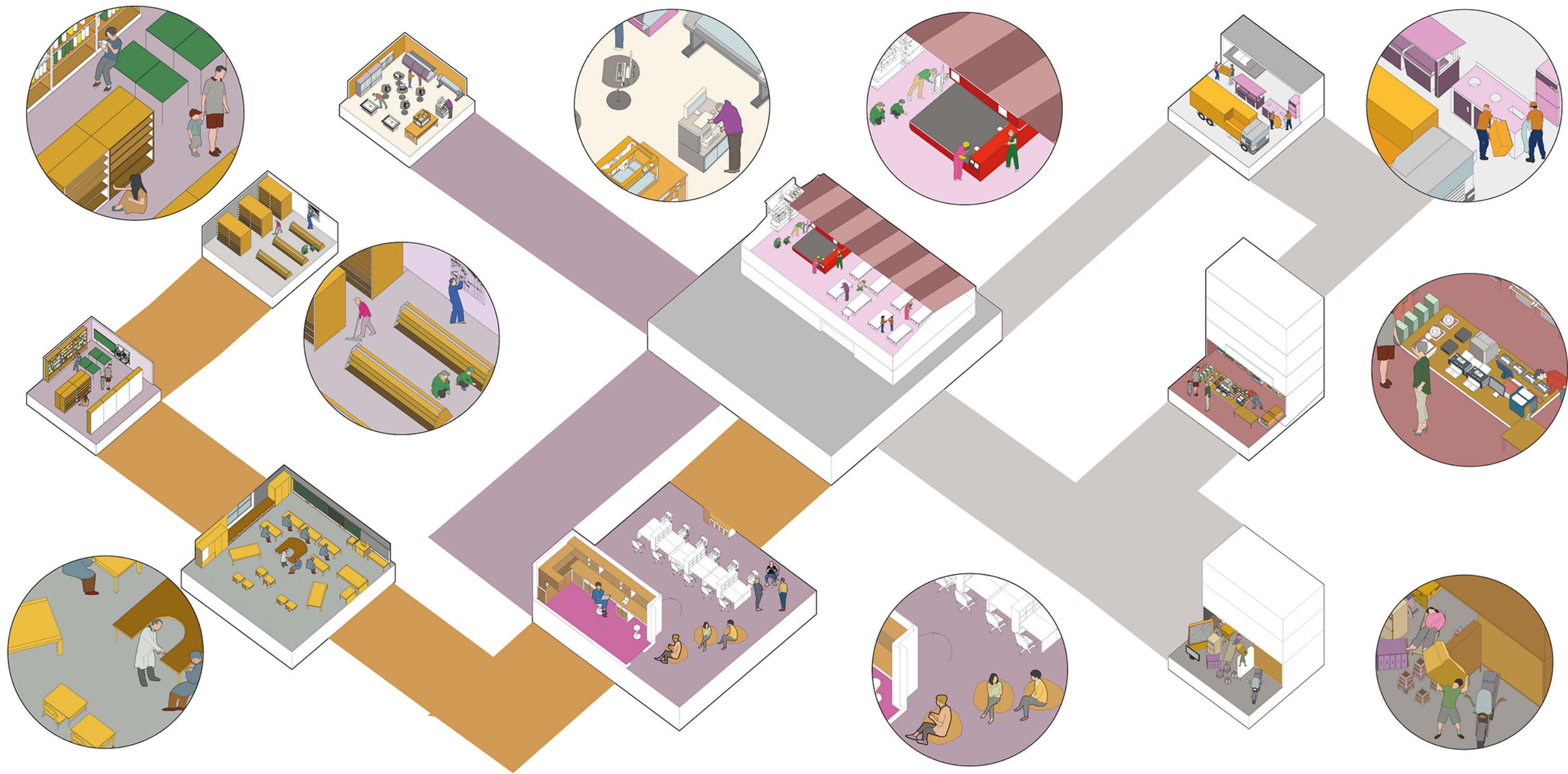


FLOW OF MONEY



FLOW OF MATERIALS





EDUCATION

- 1 Makerspace for Public
- 2 Makerspace in School
- 3 Skill Center
- 4 Public Space Used as Occational Activity

PRODUCTION

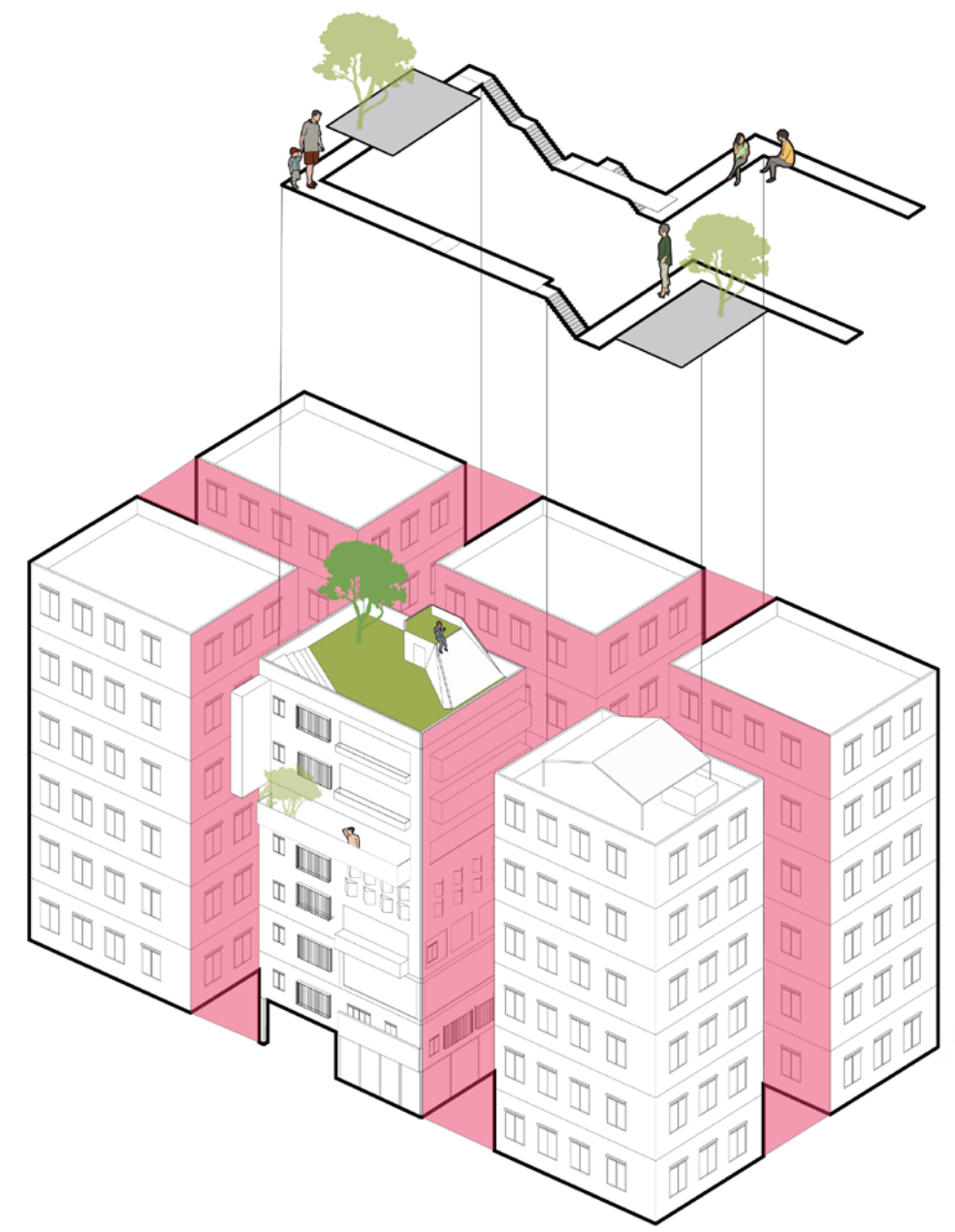
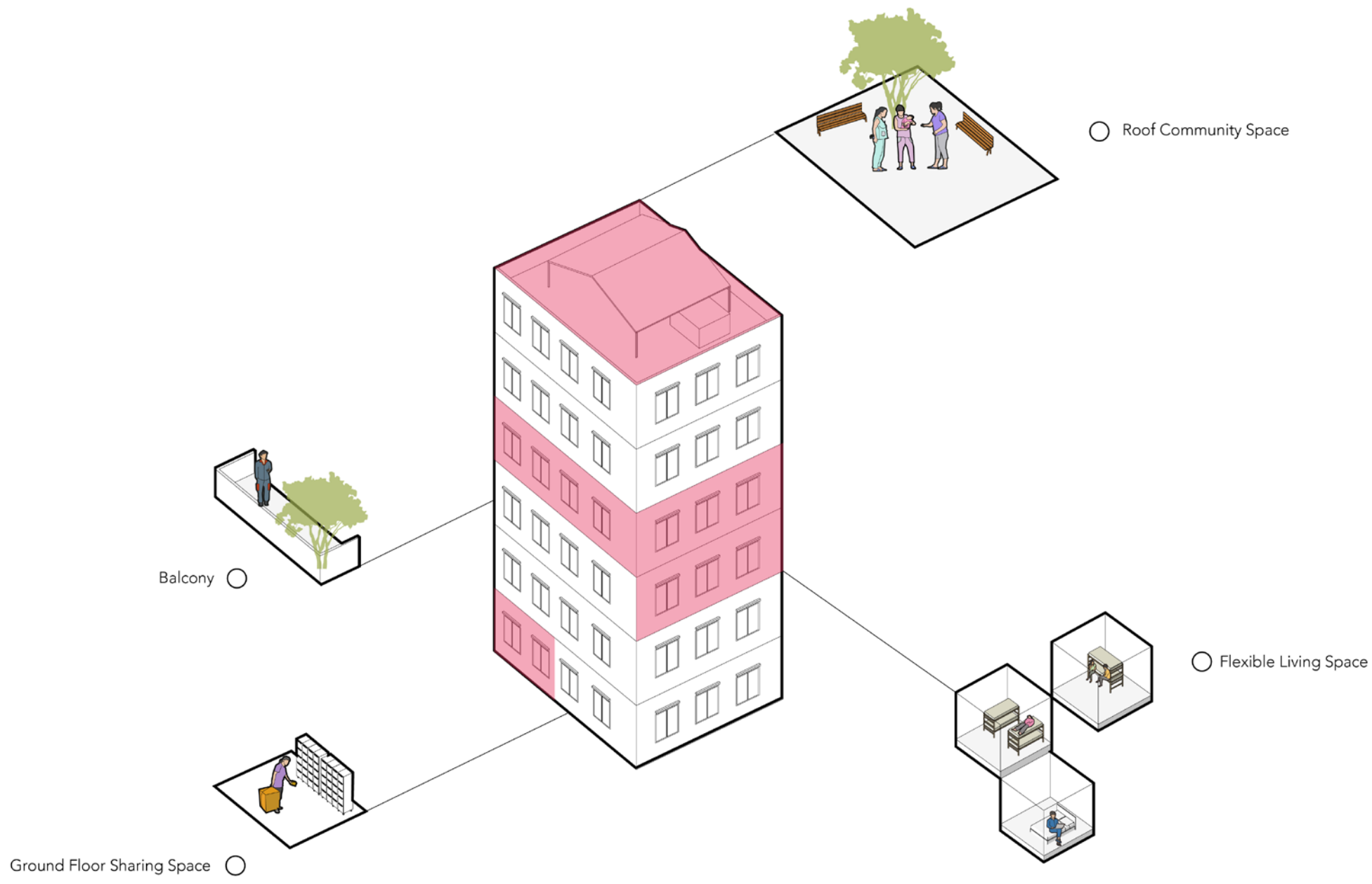
- 5 Hardware Shop
- 6 Repaire Shop
- 7 Second-Hand Shop
- 8 Steel Shop
- 9 Special Material Shop
- 10 Recycle Center
- 11 Maker Shop
- 12 Prototype Factory

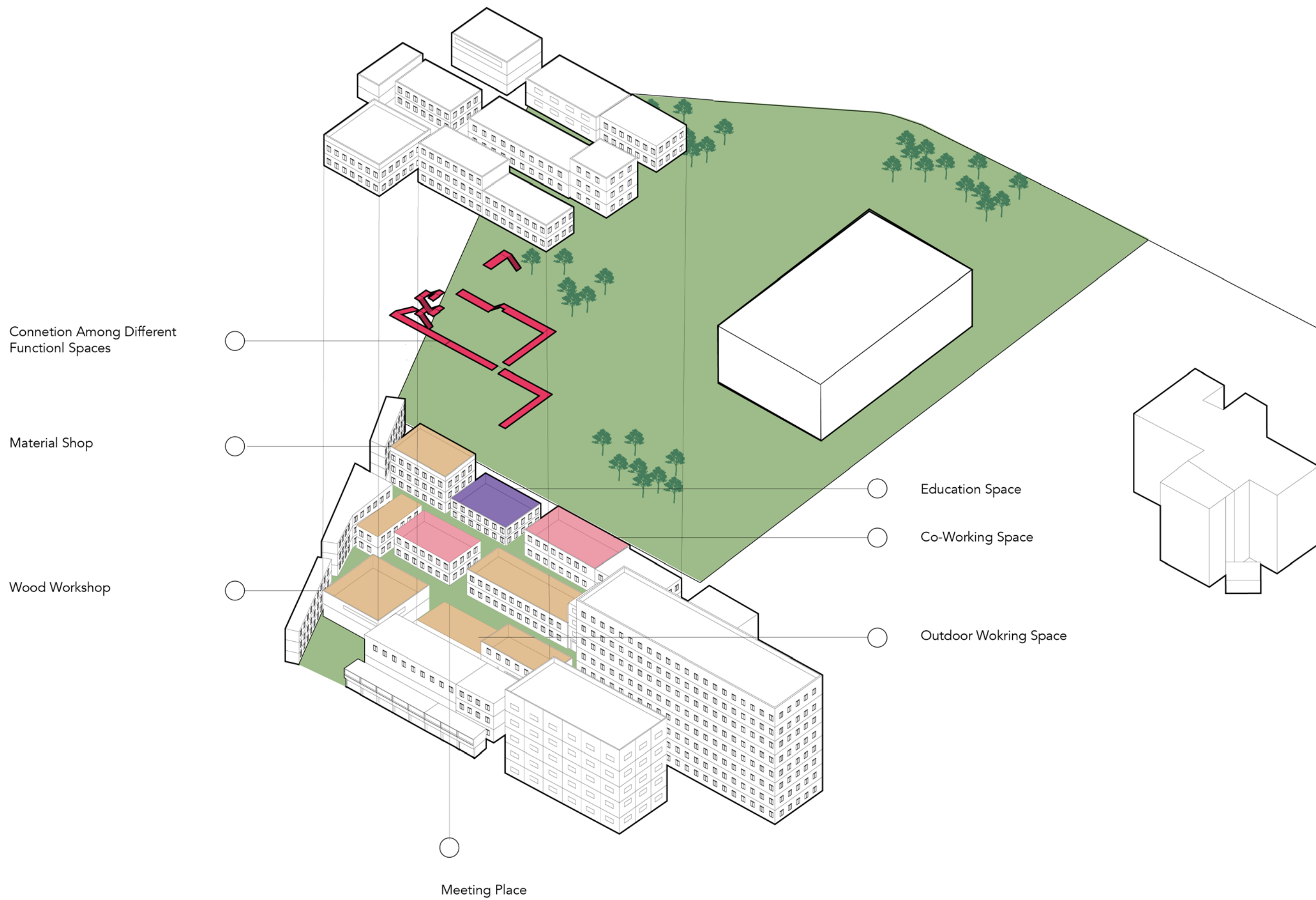
WORKING AND LIVING

- 13 Makerspace
- 14 Soho







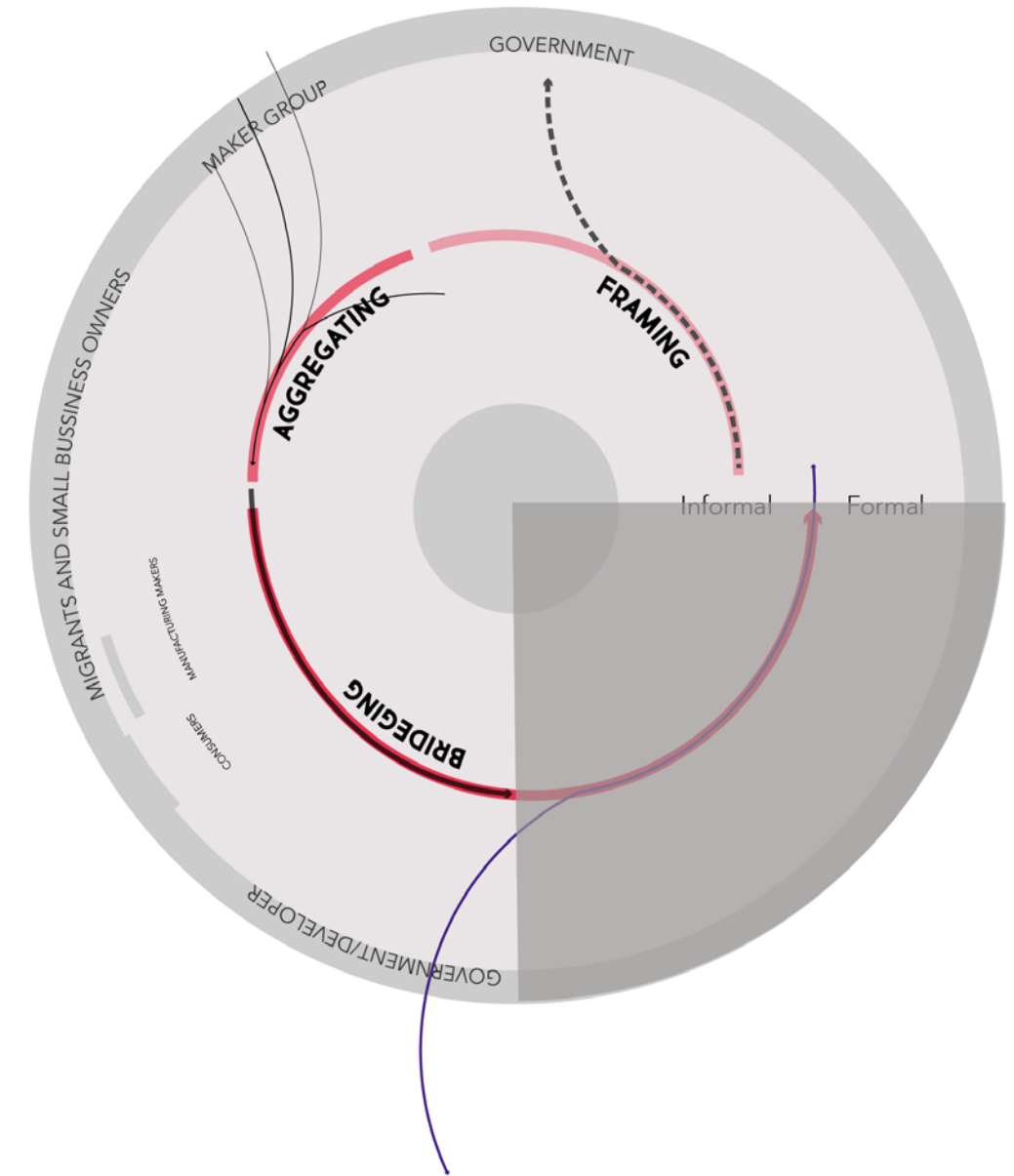
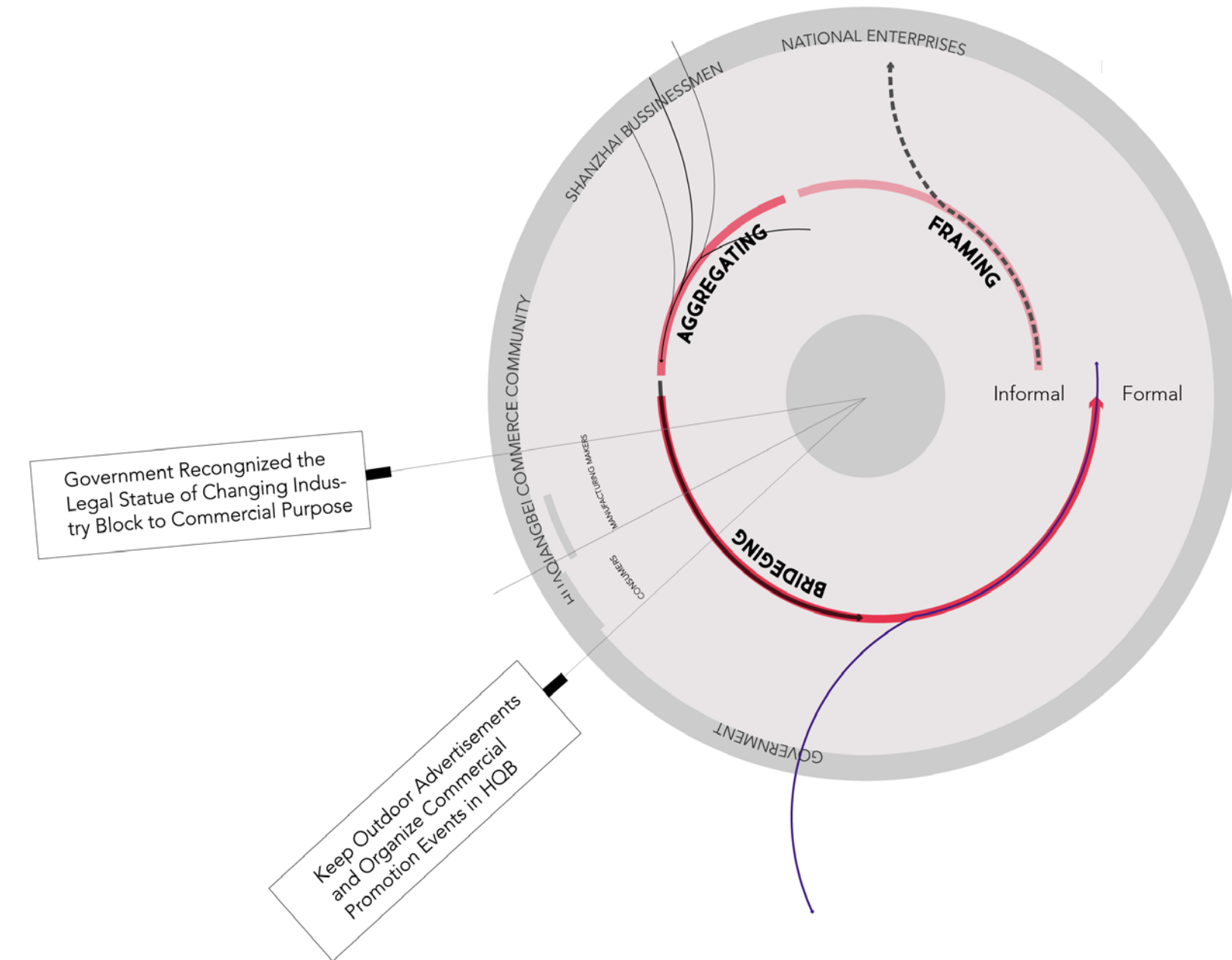


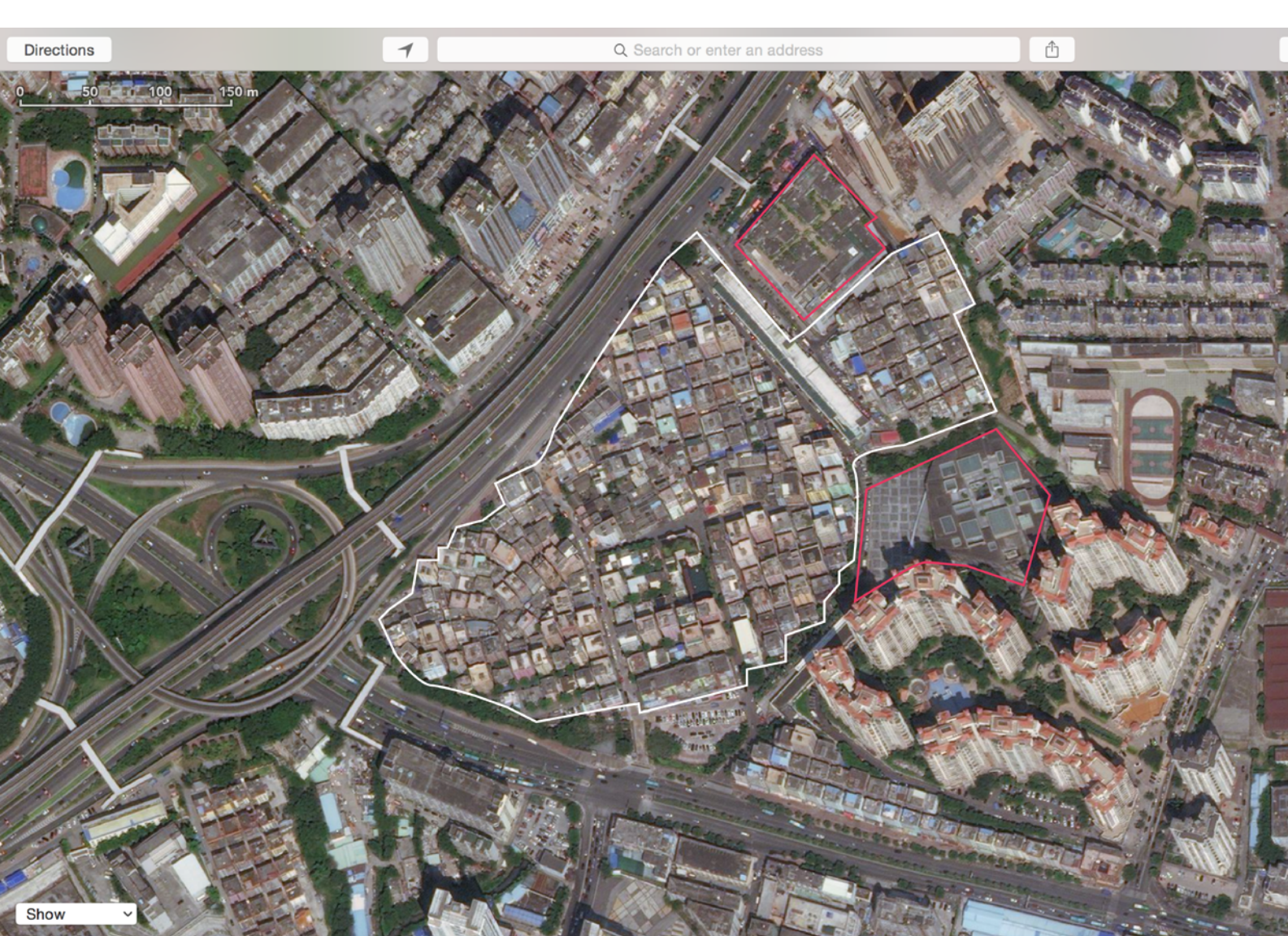




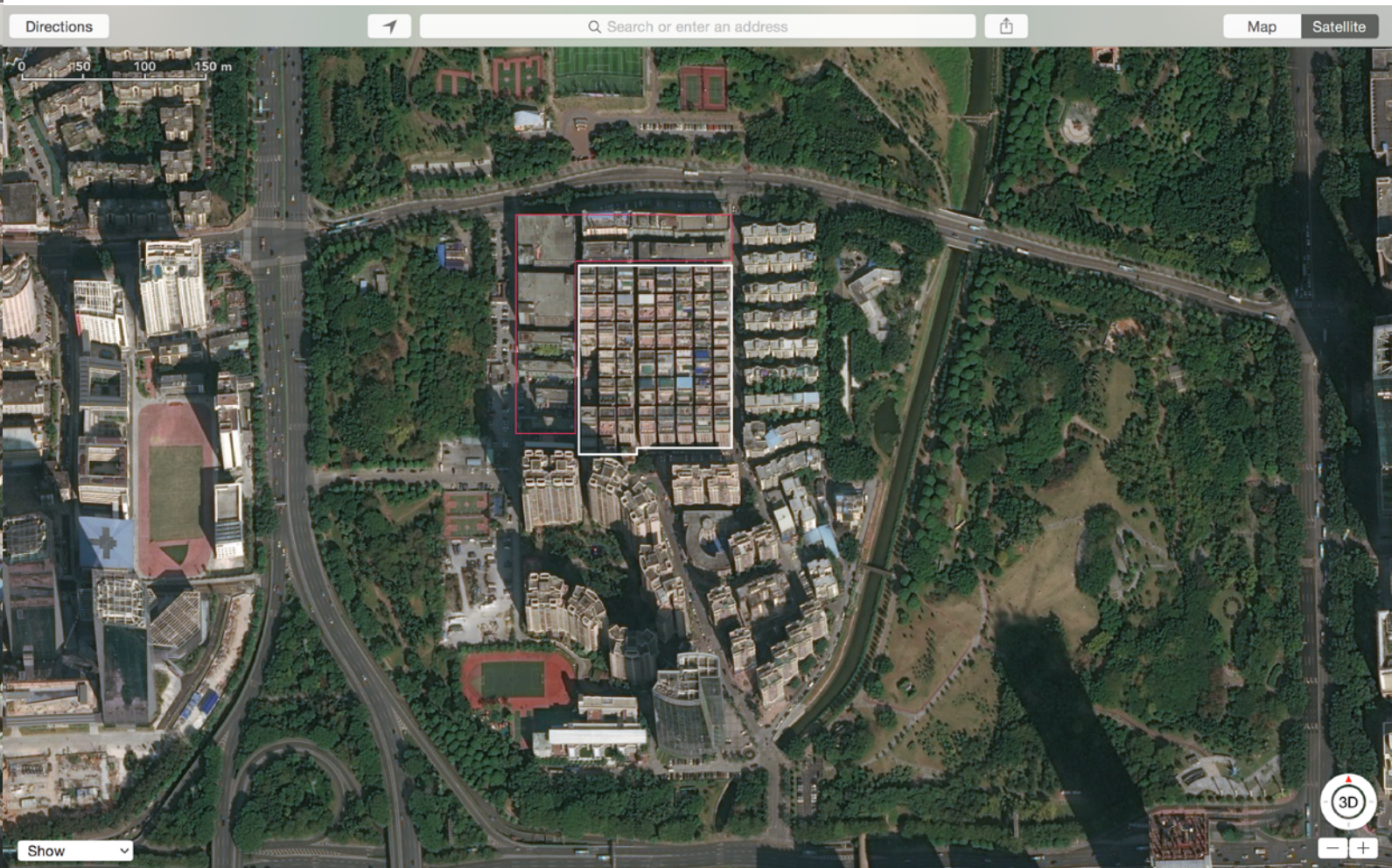
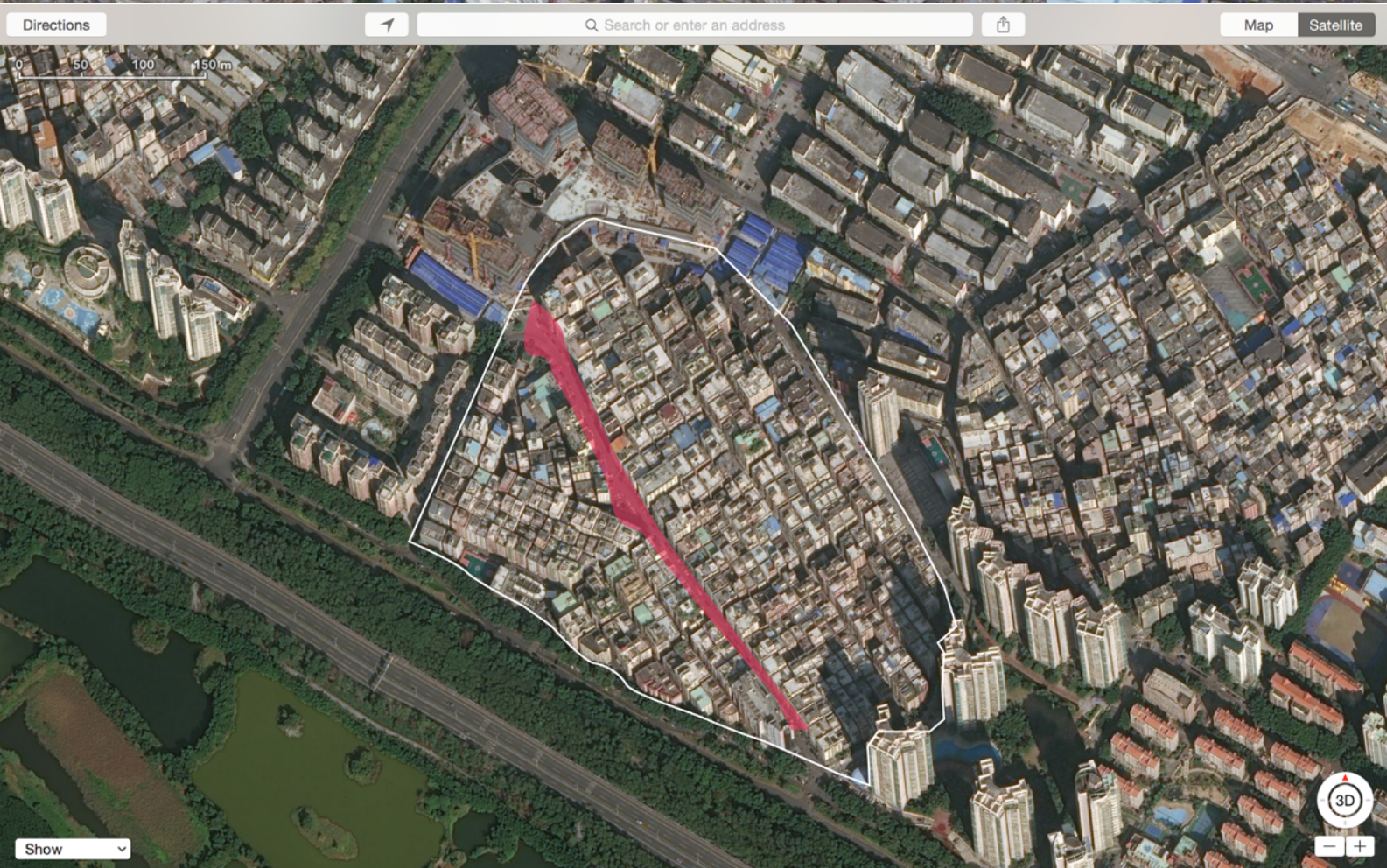


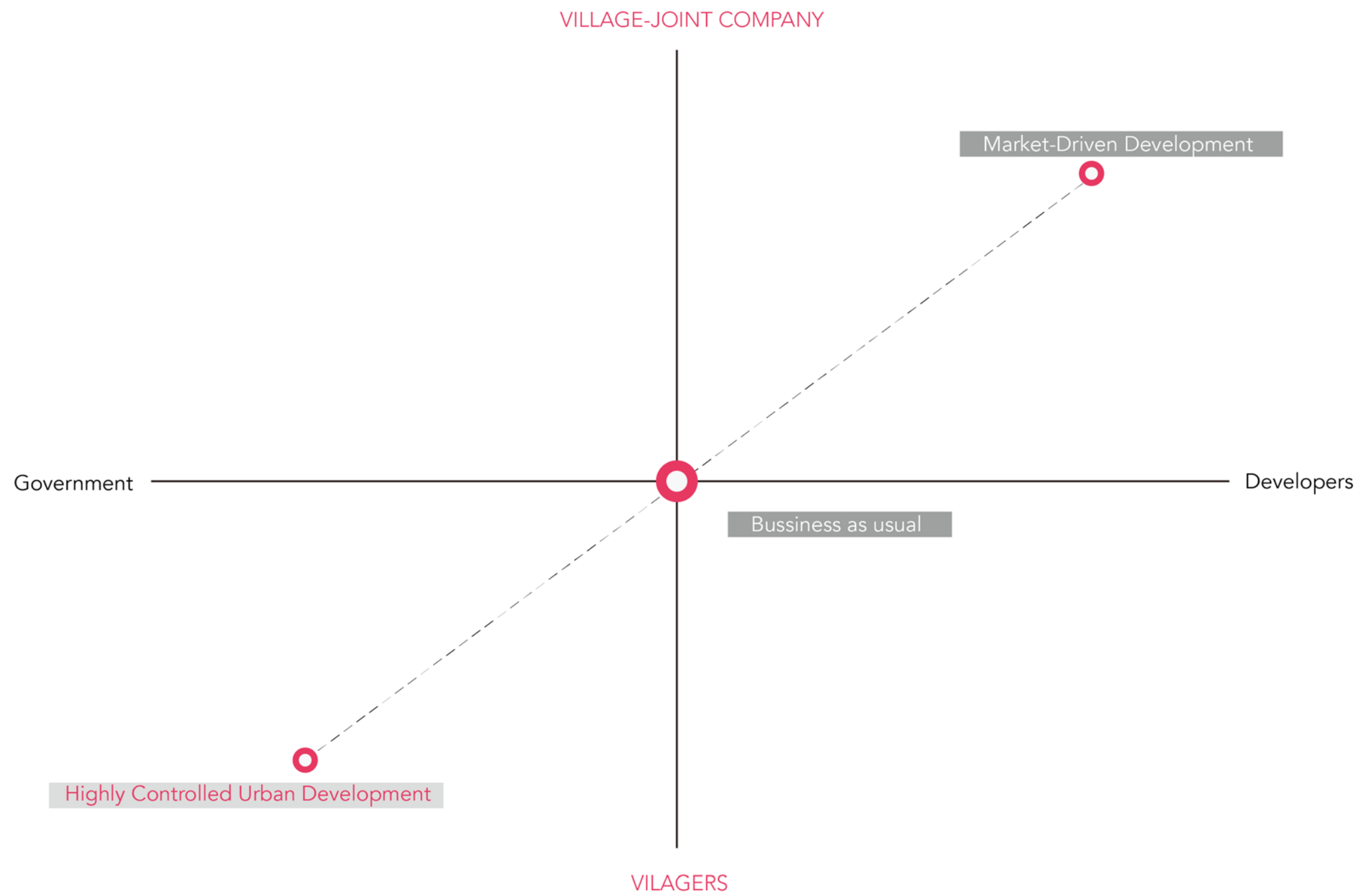




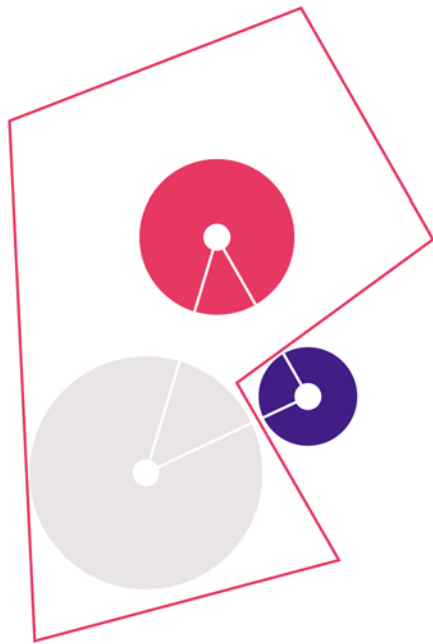


- 1.0 GOVERNMENT LED URBAN REGENERATION MODEL
- 2.0 VILLAGE-JOINT COMPANY LED URBAN REGENERATION MODEL
- 3.0 VILLAGE-JOINT COMPANY AND DEVELOPER LED REGENERATION MODEL



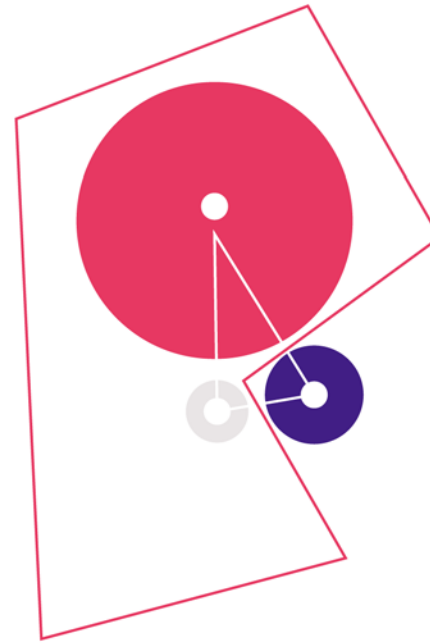


SCENARIOS



Scenario 1

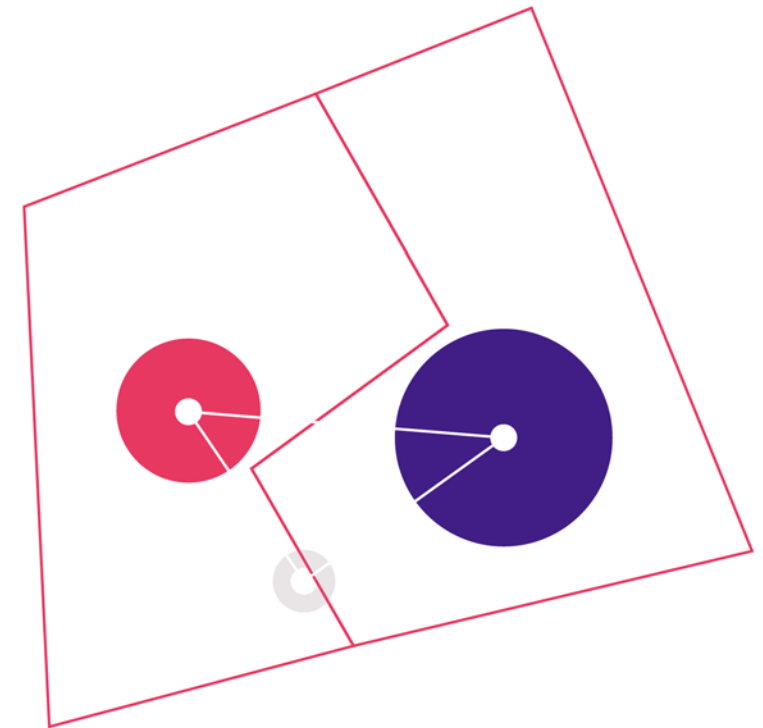
Developers take charge of developemnt but
still keep the local essence



Scenario 2

Villagers become developers

Creative Workers
Social Economic Connections
New Centrality

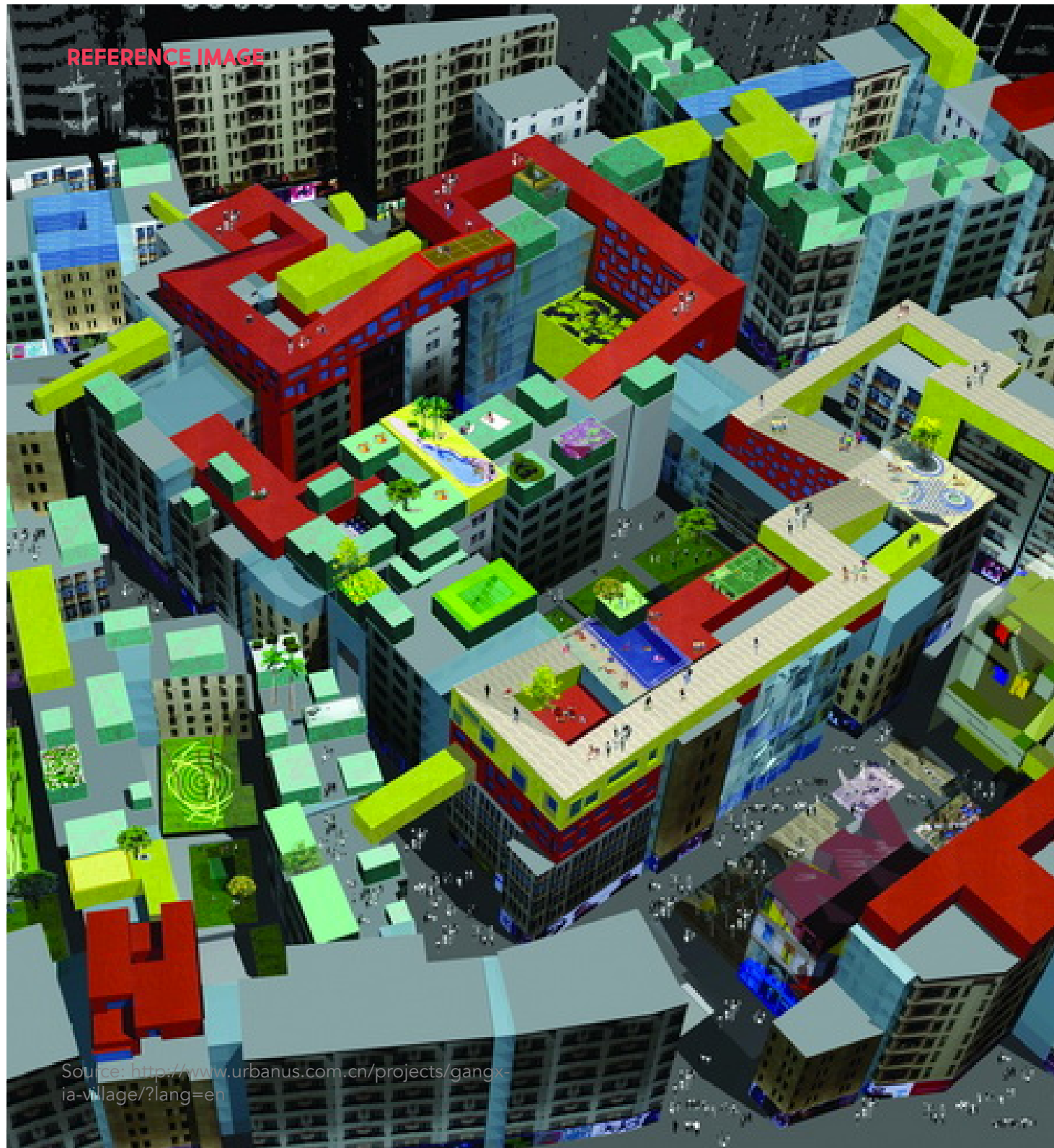


Scenario 3

Influence from Outside
Maker City, "Dafen"



The thinking behind first scenario is that developers would seek for profit maximum and its geographical location would create additional profit by real estate development. Chasing after money but still keeping the most functional part of the urban village as a marketing strategy for attracting renters and potential investors. High density will compensate for the money they paid for purchasing the lands from villagers but local building design strategy may be kept for high rise building design. It will become a marketing project directly which will be used by both developer and government as a new market business area.



Business as usual would base on growth of current spatial development which is about adaptation of building typology. Negative space will be taken use but these spaces may not fully satisfy future demand for connection with formal economy and governmental vision. In order to bring new function, root area will be used as strategy for new group people. This strategy will respect current typology while creating new space for creative class and quality working and living space. Instead of conflicting in land right, air right will be new aspect villagers could control. In that sense, urban village become symbolic project and place itself which will become attractive for creative workers. It will represent a experimentalism in both innovation development and urban space development.



Source: <http://www.urbanus.com.cn/projects/dafen-art-museum/?lang=en>

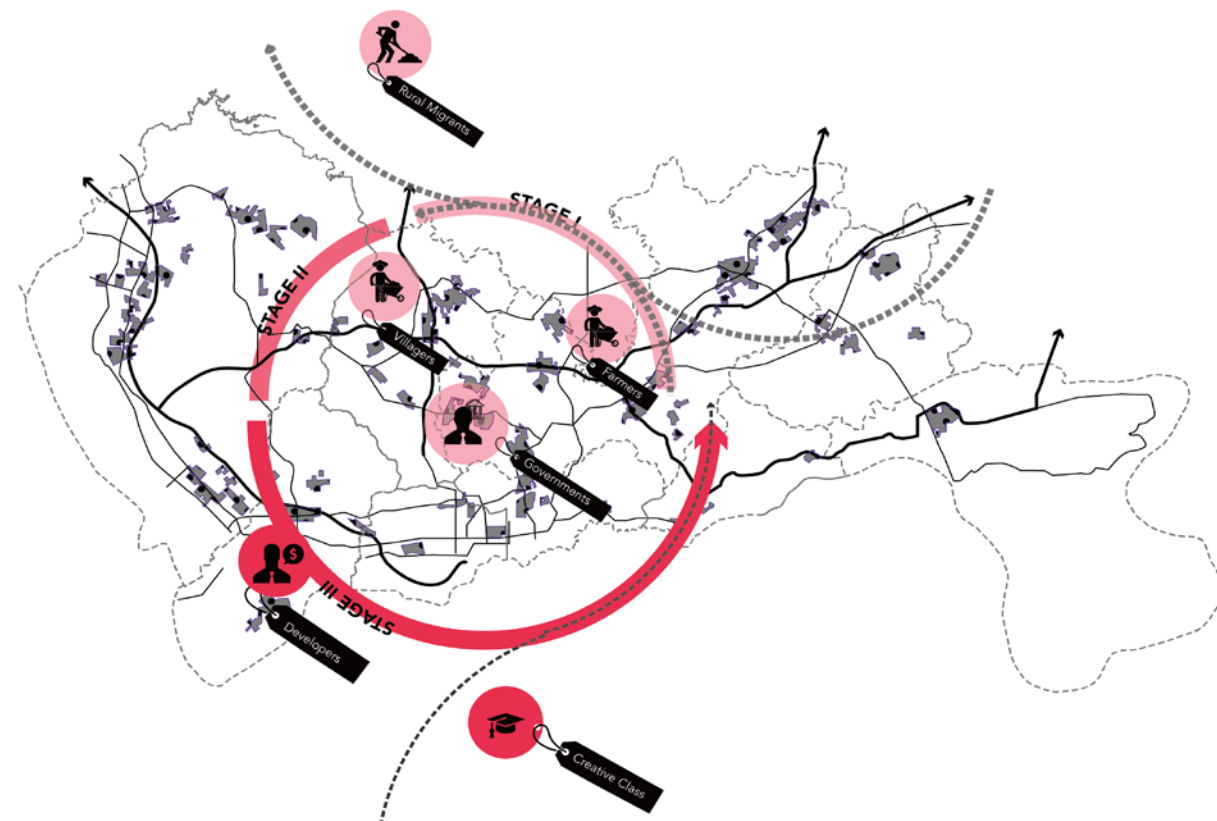
Governmental attitude towards maker city 2.0 will be positive from the case of Dafen. However, new functions will be proposed by government to increase the influence of these grassroots development which will rely on different typology. Analysis on context of Futian Village, central park, industry building along the river, one port will be potential assets government will take use. Instead of seeking transforming space in urban village, using flagship projects could be a win-win strategy for integration local development with governmental vision. These space would provide a large stage for makers while create a new node in current place.



CIRCULATION



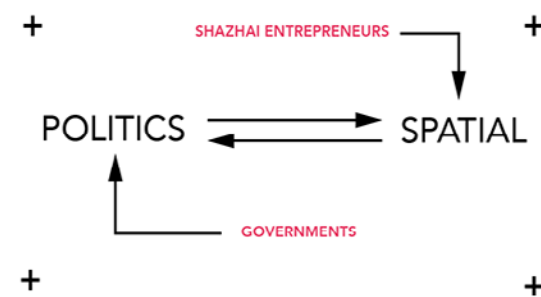
HINGE



SPIRAL

Section I

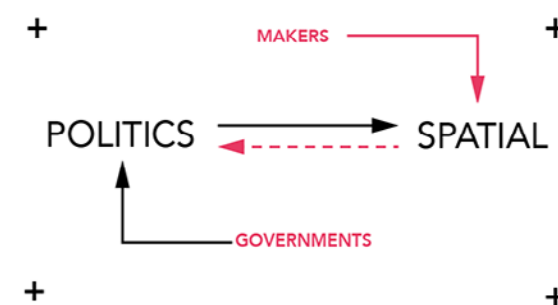
SHANZHAI CITY



Integration

Section II

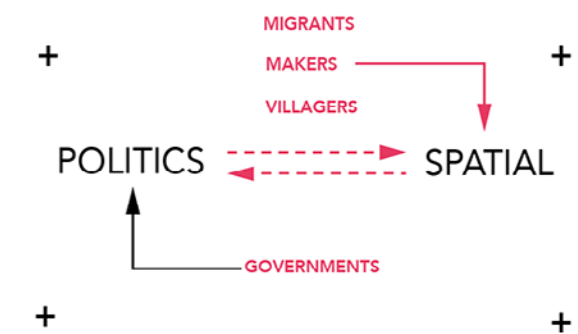
MAKER CITY 1.0



Mismatching

Section III

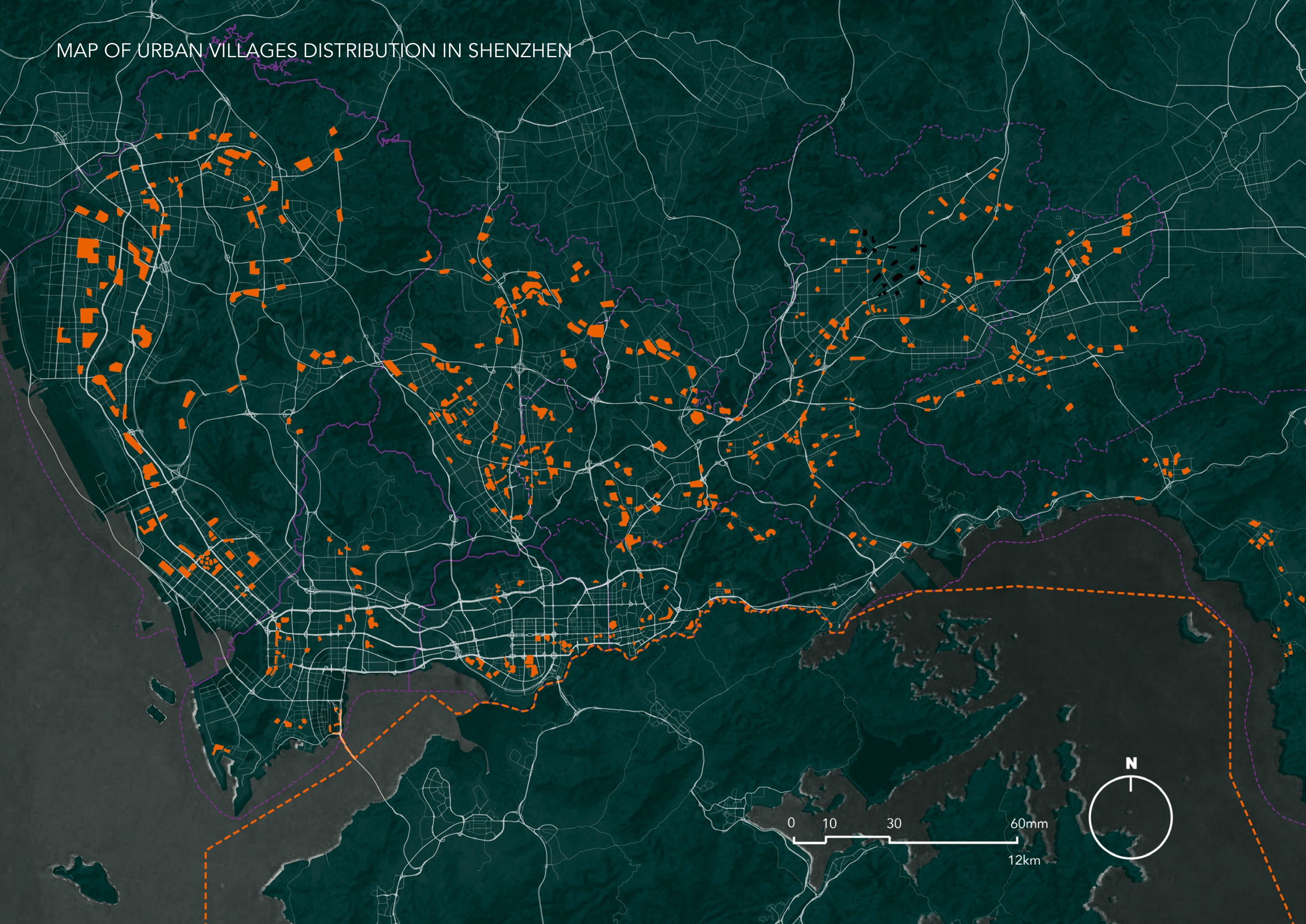
MAKER CITY 2.0



Dynamic equilibrium

politics and Design are not understood separately, but rather as politics as an essential aspect of design along with the simultaneous situation that design is an equally tool for political action.

MAP OF URBAN VILLAGES DISTRIBUTION IN SHENZHEN



As Lam (2016) emphasized, it is an explanation and interpretation that grassroots innovation in Shenzhen is not an end, but a means to next phase of innovation in Shenzhen inevitably triggers our imagination about how its citizens will be treated in next phase, especially the grassroots communities that have been underrepresented for a long time. The analogy he used in the article may be appropriate for Shenzhen, an egg: impacting from the outside would provide food for others, but impacting it from within would breed a life of its own".