

# **SHANGHAI METABOLISM**

***Adapting aging Danwei housing compounds***

***Yilun Hong***

***May 2020***

***Carnegie Mellon University***

***Master of Urban Design Thesis, 2018-2020***

***Advised by:***

***Jonathan Kline***

***Stefan Gruber***



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# ABSTRACT

Housing in China has evolved along with its political and economic system since the establishment of the country in 1949. From the state-owned and centralized planned economy in the early stage to today's socialist market economy, housing from each era has left legacies on the city. Among them, the object of this thesis, the old Danwei Housing, constitutes a large proportion. Massively constructed and distributed to workers by the state and state-owned enterprise in the socialist era, Danwei housing was privatized and commodified during the economy reform era, and today amounts to 40% of Shanghai's housing stock and 30% of its real estate market.

Danwei housing today is situated in a difficult position. On the one hand, after decades' development, the Danwei compounds that used to locate on the fringe of the city have grown into vibrant neighborhoods with abundant public amenities, and some become city-wide destinations. Also, with the aggressive boom of the real estate market and escalating housing costs, Danwei housing has become a primary source for affordable housing. On the other hand, the Danwei housing buildings, mostly built with brick and precast slabs and equipped with the most basic facilities, are failing to meet residents' need with its aging infrastructure. Furthermore, the gap between Danwei workers, Shanghai native, and immigrants is exposing social issues within the community.

The governance and regeneration of Danwei housing has been the government's concern since the housing reform that removed Danwei from its administrative system. In the past 20 years, the government has led several projects to improve Danwei housing, such as "Pinggaipo" project and some facade beautifying projects. However, these top-down physical-level projects are seldom appreciated by the residents, but sometimes result in even more complaints and dependence on the government. Thus, in recent

years, the state is proposing a new “Social Governance Model Based on Collaboration, Participation, and Common Interests”, promoting public engagement strategies, and also set forth plans for Danwei housing renovation nationwide, with an estimation of 170,000 Danwei compounds to be renovated, involving over 100 million residents.

In the non-governmental realm, architects and sociologists are coming forward with different strategies to improve Danwei housing from the bottom-up. Unlike governmental projects, these organizations (e.g. Big Fish Community Development) investigate social issues, and build interventions on top of the solidarity of residents. Their practice demonstrates the possibility of bridging social gaps and bringing different people together for community improvement in the Chinese context. Thus, it’s reasonable to envision a future for resident-initiated transformations leading to more inclusive and just communities.

This thesis reviews the history of Danwei housing in different eras and current Danwei housing governance and regeneration models, and envisions a new era of Danwei housing where residents are empowered to improve their own living environment and forge new connections between social groups. Drawing inspiration from several international precedents and theory of commoning, this thesis proposes (this will ultimately need to be more specific) new processes of (design decision making, shared space management....) and physical improvements at a variety of scales.



# CONTENT



# ACKNOWLEDGEMENT





**01**

**HISTORIC REVIEW**

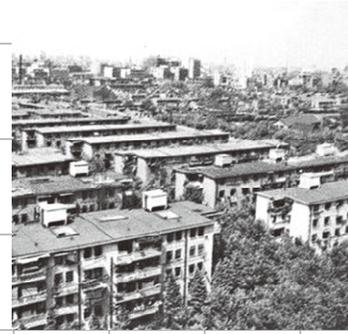
new housing constructed /  
10,000 m<sup>2</sup>

- danwei housing
- commodity housing

### HOUSING TYPE DEVELOPMENT



lilong, early 20th century



danwei housing, 1950s~1990s

1250

1000

750

500

250

PRC  
Established

Socialist  
Transition

Great Cultural  
Revolution

1949

1955

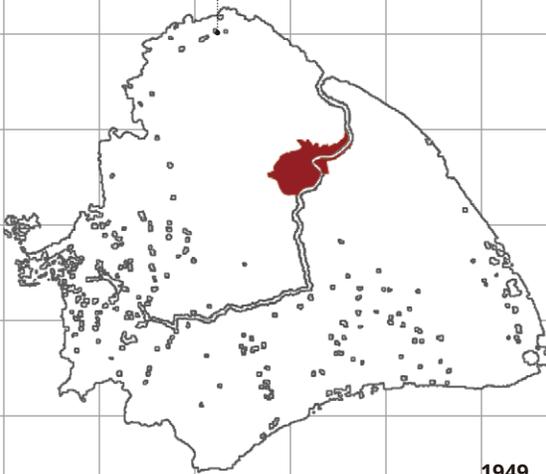
1960

1965

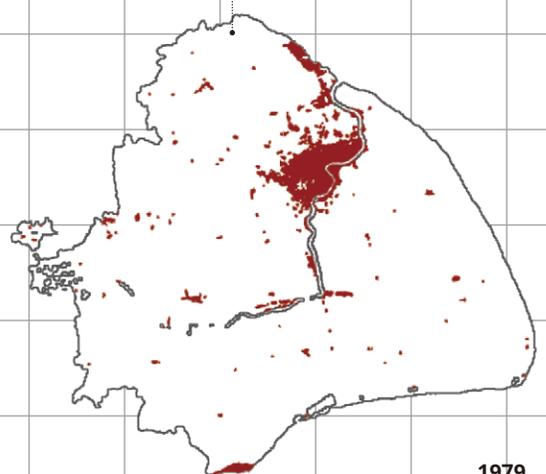
1970

1975

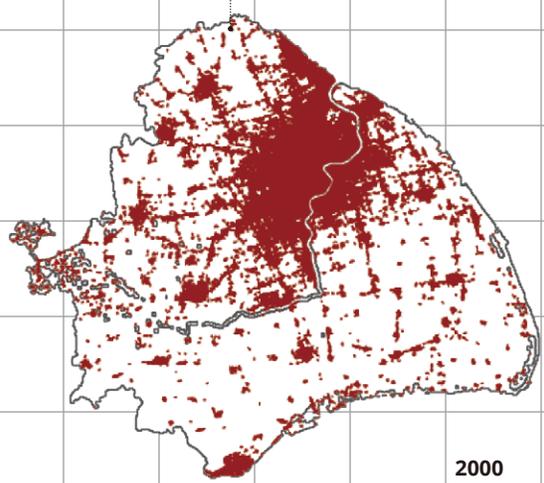
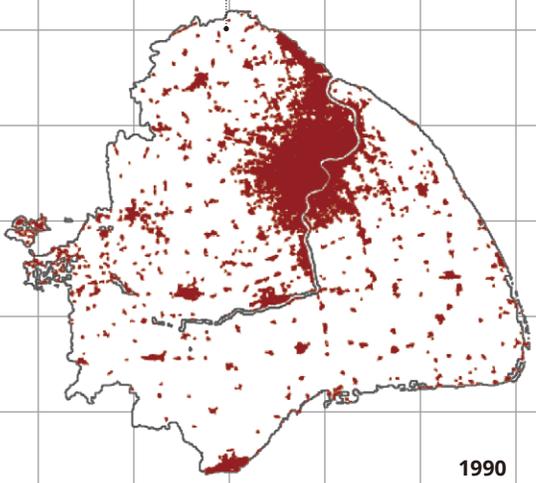
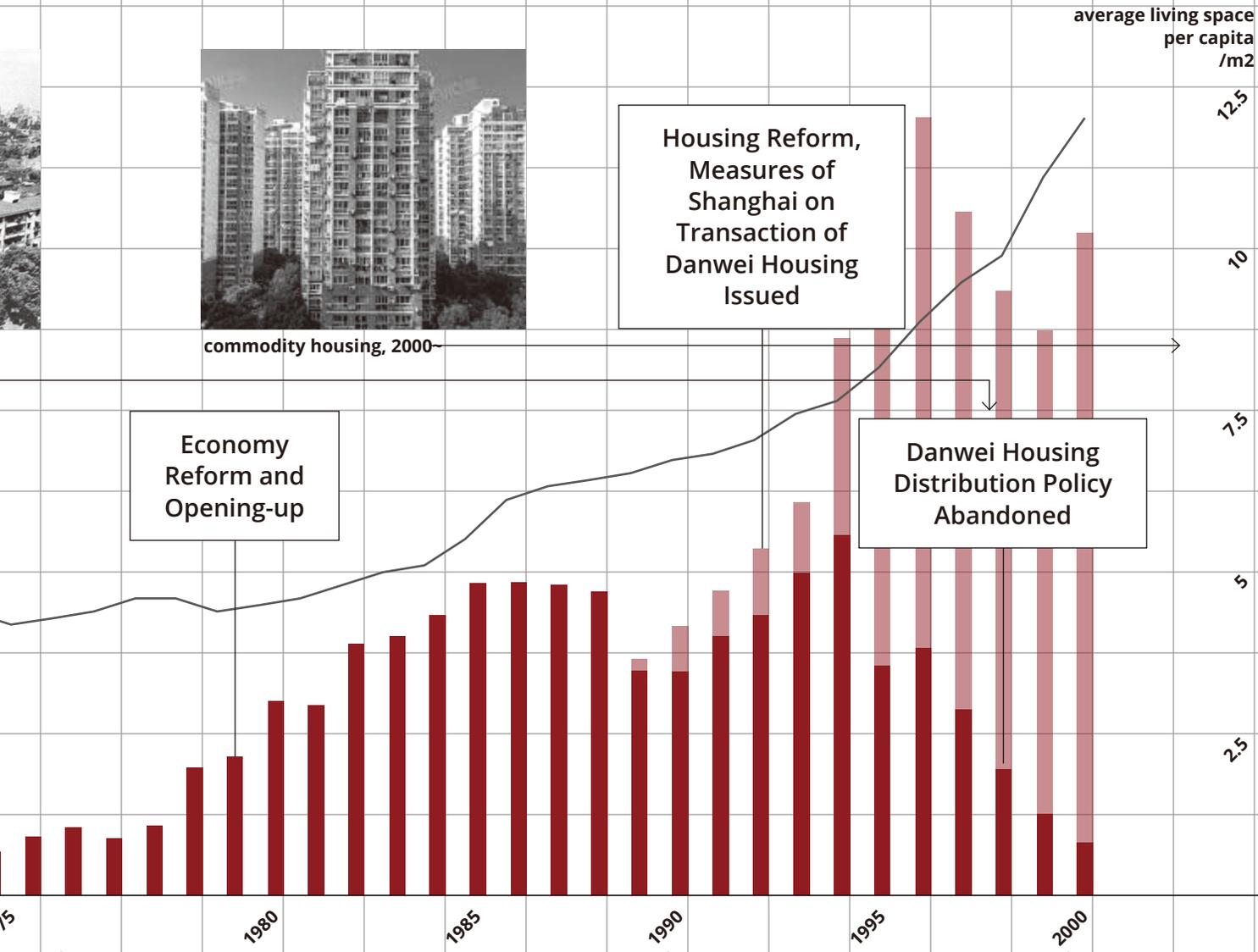
### URBAN FOOTPRINT DEVELOPMENT



1949



1979



## THE ORIGIN

Shanghai is located on the eastern coast of China, next to the estuary of the Yangtze River. Though being one of Asian's major financial centers, Shanghai was originally an agricultural village, and was forced to be established as a treaty port after the Opium War in 1843, in accordance with the Nanjing Treaty. The treaty brought in merchants from western countries including Britain, France, and the USA, who carved up the city and built their concessions separately. The city reached its economic glory in the 1930s, when it became known as "The Paris of the East", while its social inequity also polarized. On the other side of the feasts and luxury on the bund, were most workers' wretched existence in the overcrowded rental housing or slum.

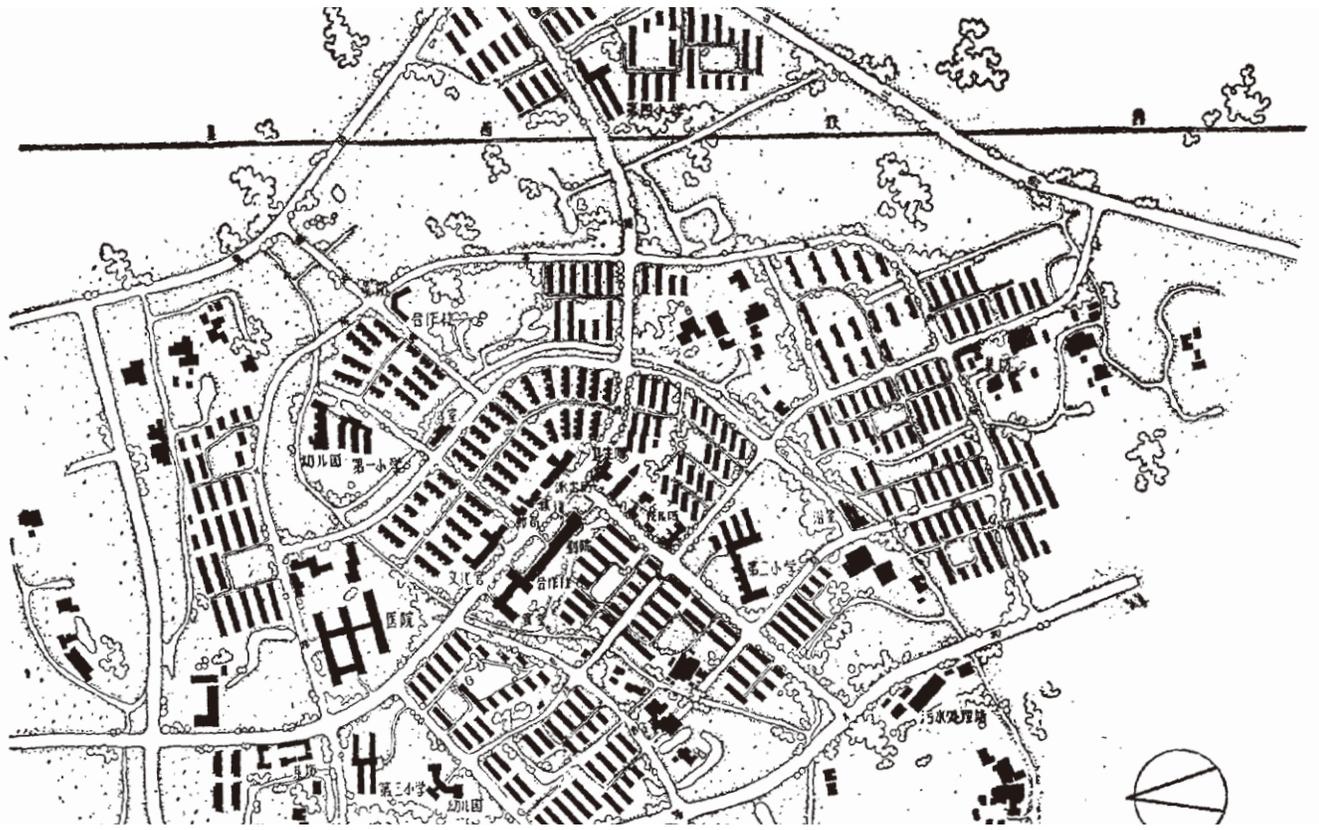
Upon the Liberation of Shanghai and establishment of PRC in 1949, the government and Chinese people were faced with a city with fragmental infrastructure and unbalanced industries. According to the Soviet consulting team's position paper on Shanghai reconstruction and development, Shanghai was an abnormally developed and indulgent consumer city, and in line with socialism principles, the city should be reformed into a worker class predominant and prospering industrial city. Thus, with the principle of "serving for production activity and working people, and giving first priority to the worker class", Shanghai government started the construction of public housing, which is also known as Danwei Housing.



## THE PARADIGM

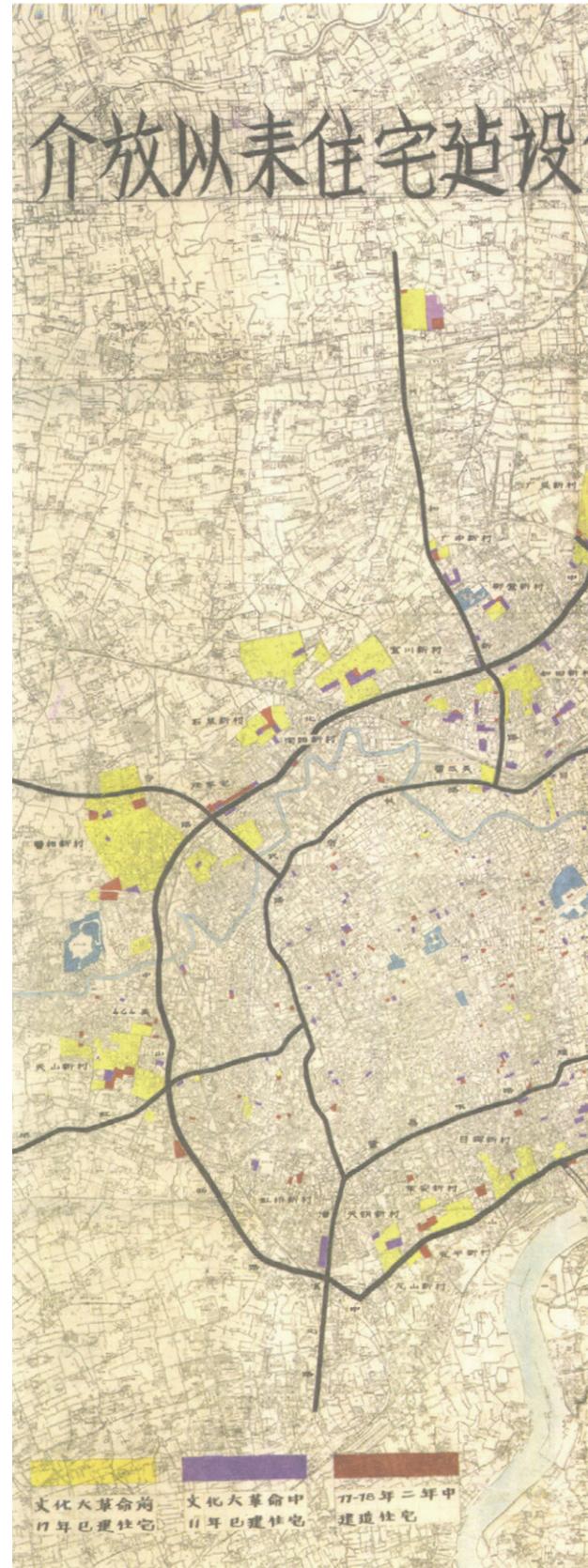
In 1951, the construction of Caoyang New Village started in a rural farmland in the northwest of Shanghai, near Putuo industrial district. Led by the architect Dingzeng Wang, who gained his Master of Architecture degree from University of Illinois at Urbana-Champaign, the master plan of the new village integrated Soviet planning theories (superblock), Perry's Neighborhood Unit model, and Mao's New Village model. The 94.63-hectare new village with a radius of 8-minute walking distance, was surrounded by artery streets connecting to the city and had an internal street network. In the periphery of the superblock were the cooperative grocery and general stores, and in the center were public facilities such as canteen, schools, and workshops. This layout offered the residents easy access to daily essentials and work, as well as embedded the socialist politics and collectivism living into the spatial form.

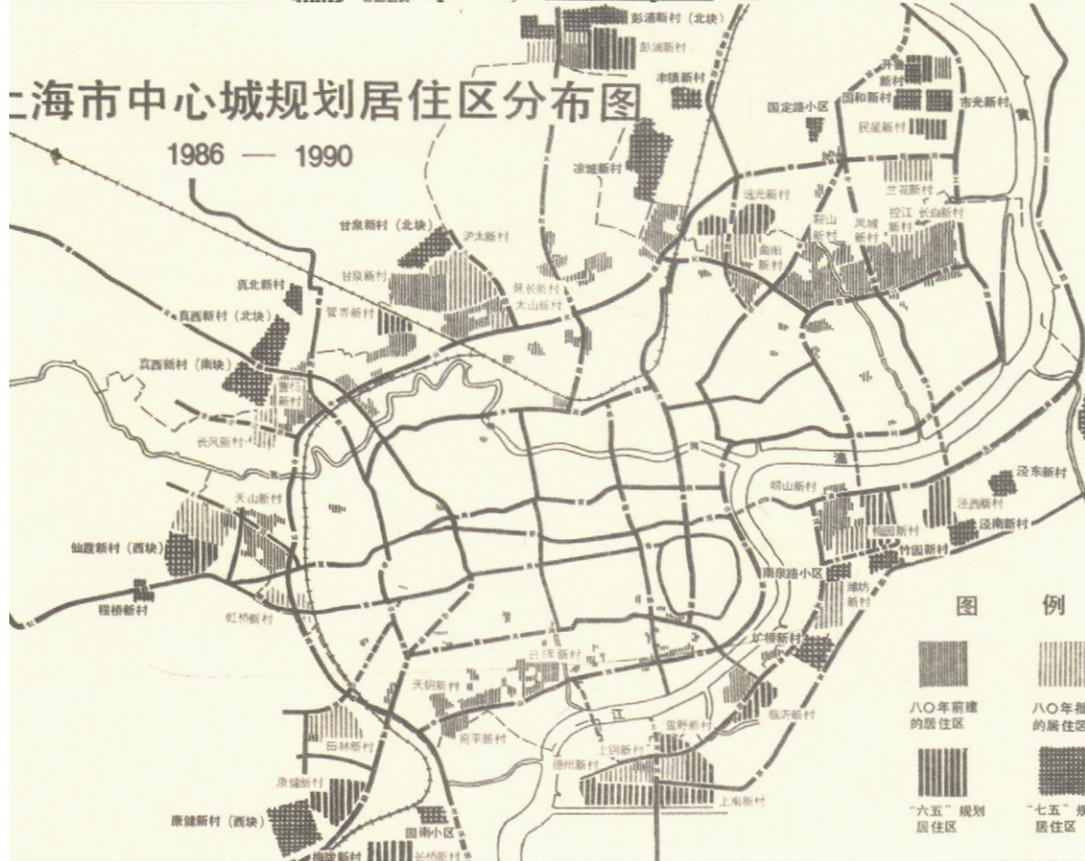
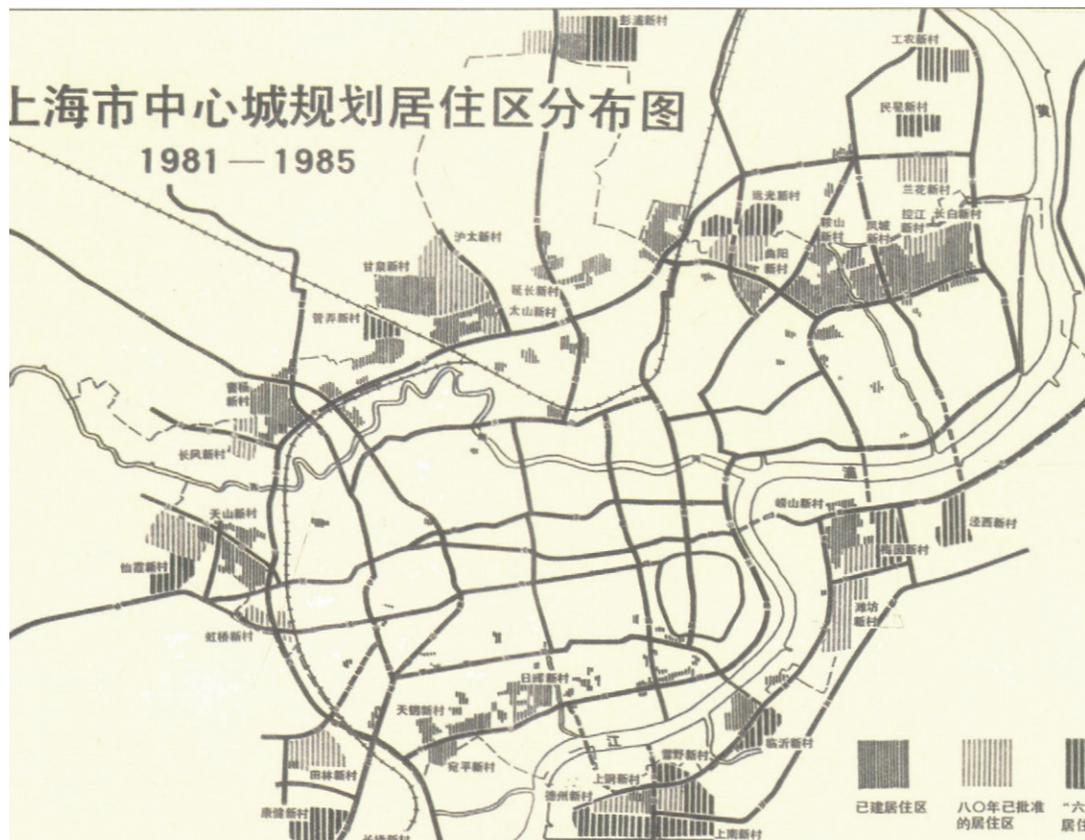
Caoyang New Village was the first government-led residential compound project in Shanghai since the establishment of PRC, and was designated to be the paradigm of the later public housing projects in the city. In a reflective essay by Wang in 1956, he revisited Soviet communist planning theories, and pointed out Caoyang New Village's deficiency of being uneconomic for its low density (all residential buildings were 2-storey) and far distance from the city center. In light of this type of comments and Soviet concept of "microdistrict" emerging in China, the principles of residential compound design were formed and proposed by the authority building on the foundation of Caoyang New Village design: "Practical, economic, and aesthetical if possible"; "实用、经济、美观". A typical residential compound in line with such principles would cover a whole block, usually 300~400 meters in dimension, and filled with residential buildings linearly layed out. Public facilities such as kindergartens activity rooms were located at the center of the compound, while commercial facilities and schools were located at the edge of the block next to the streets.



# SHANGHAI URBANIZATION

With the compound model formed and corresponding administrative system established, Shanghai started its rapid urbanization. In the 1950s and the beginning of 1960s, as supporting projects of the industrial district development, XX resident districts were planned and constructed in the suburb and satellite cities. The development stagnated between the mid 1960s and 1970s due to the Great Cultural Revolution, and accelerated rapidly in the 1980s to solve the housing shortage. In the 1980s and 1990s, XX resident districts were built at the fringe of the city.





## DANWEI SYSTEM & ADMINISTRATIVE SYSTEM

The physical form of Danwei Housing and Chinese administrative system are entwined and inseparable. After the establishment of PRC, CPC formed a socialist economic system based on public ownership, and its organizational structure is known as the Danwei System, through which the central government transmitted its strategies and policies to the basic level. For working individuals with urban Hukou, Danwei was the most crucial part of their life: they received from Danwei not only their salary, but also all kinds of social benefits, including housing, food supply, pensions, etc. Theoretically, Danwei employees would never lose their job, while everything in their and their dependants' life was confined by their Danwei, that they would even need Danwei documents to stay in a hotel. In a word, individuals "belong to" Danwei.

Danwei housing was a social benefit for working people and their dependants. They were planned and built by the government (before 1978), and distributed by each Danwei. Residents would pay very low rent to their Danwei, and the Danwei would take charge of the maintenance of the compound. Thus, the employees from the same Danwei usually stayed in the same compound near their workplace, where they lived next to each other, shared the same facilities, and went to work together, while their children went to the same school and played together. This added to the employees', or compound residents', self identification to the Danwei community.

The spatial hierarchy of Danwei housing also corresponded to the government's administrative hierarchy. According to Regulation on the Organization of Urban Neighborhood Office and Regulation on the Organization of Urban Residents' Committee, both released in 1954, the district government would establish a neighborhood office in each neighborhood (50,000~100,000 residents), and under the guidance and supervision of the neighborhood office, every

100~600 households would elect one residents' committee, which was in charge of the procedure of social welfare distribution and publicizing of propaganda. Spatial-wise, each residents' committee was responsible for one Danwei compound (or more than one in some cases), and each neighborhood office was responsible for one residential district, consisting of around 10~20 Danwei compounds. The public facility planning also followed the similar hierarchy. Commercial facilities were allocated in three levels: residential district level, residential microdistrict level (5~10 Danwei compounds), and compound level. Hospitals and combined middle and high schools were built for each residential district.

# HOUSING REFORM

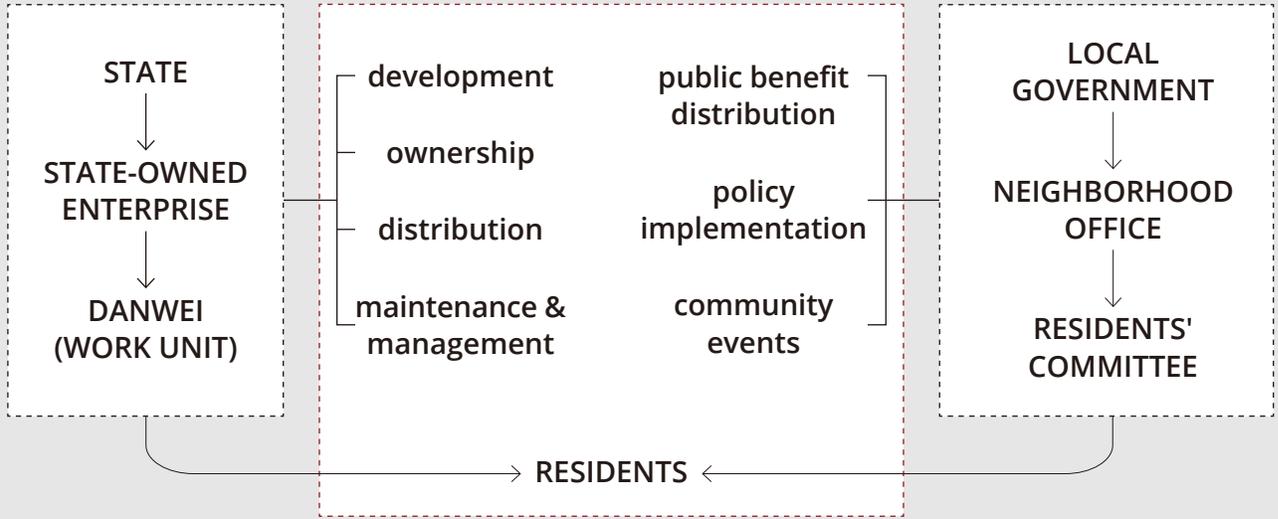
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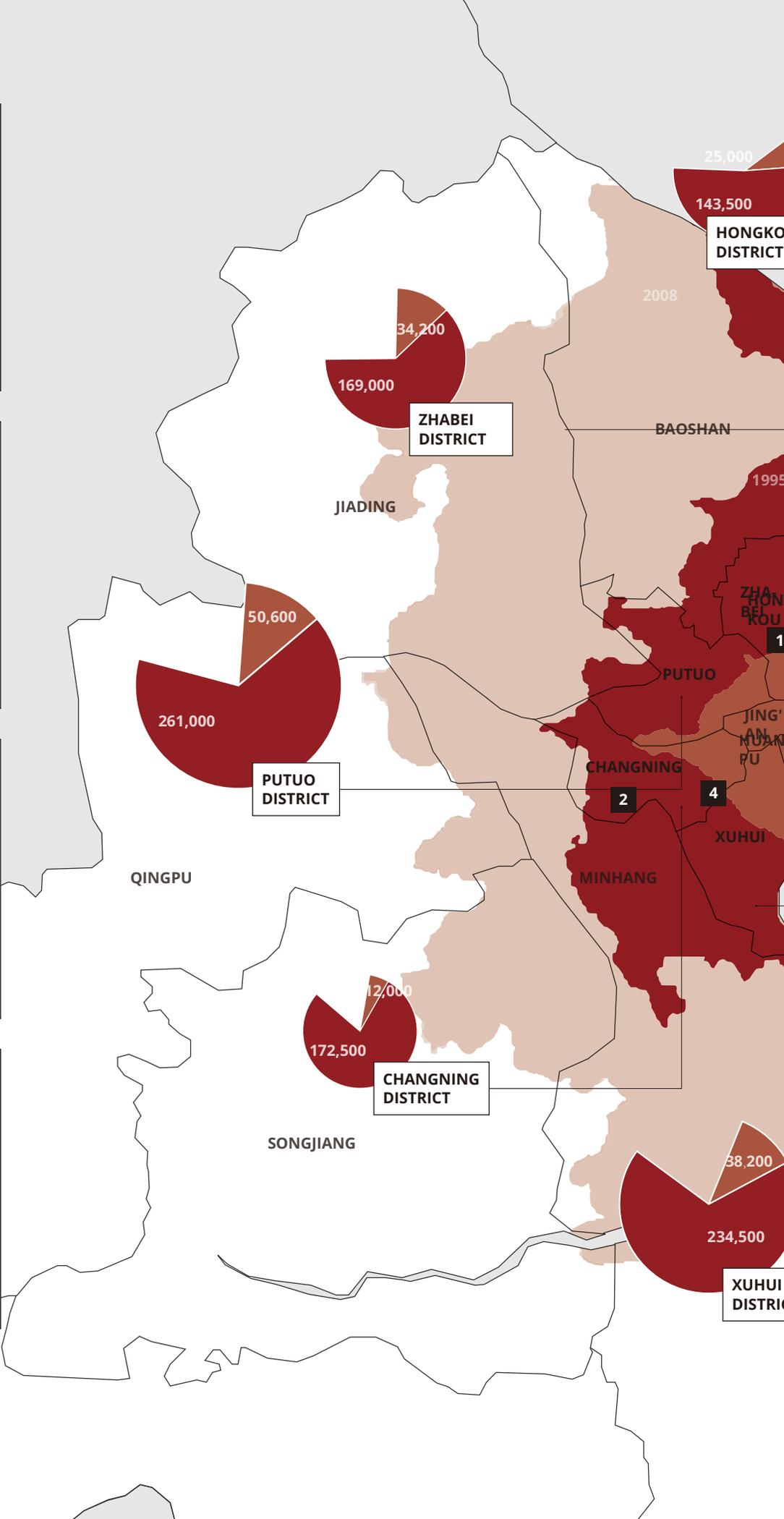
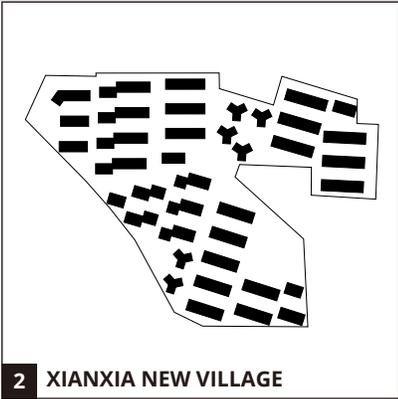
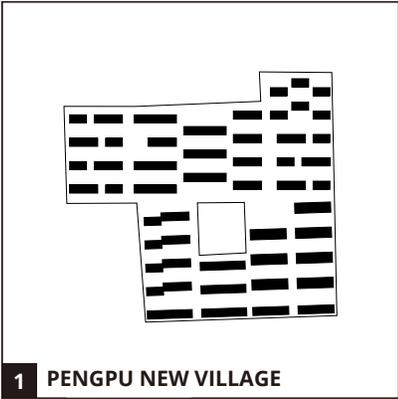
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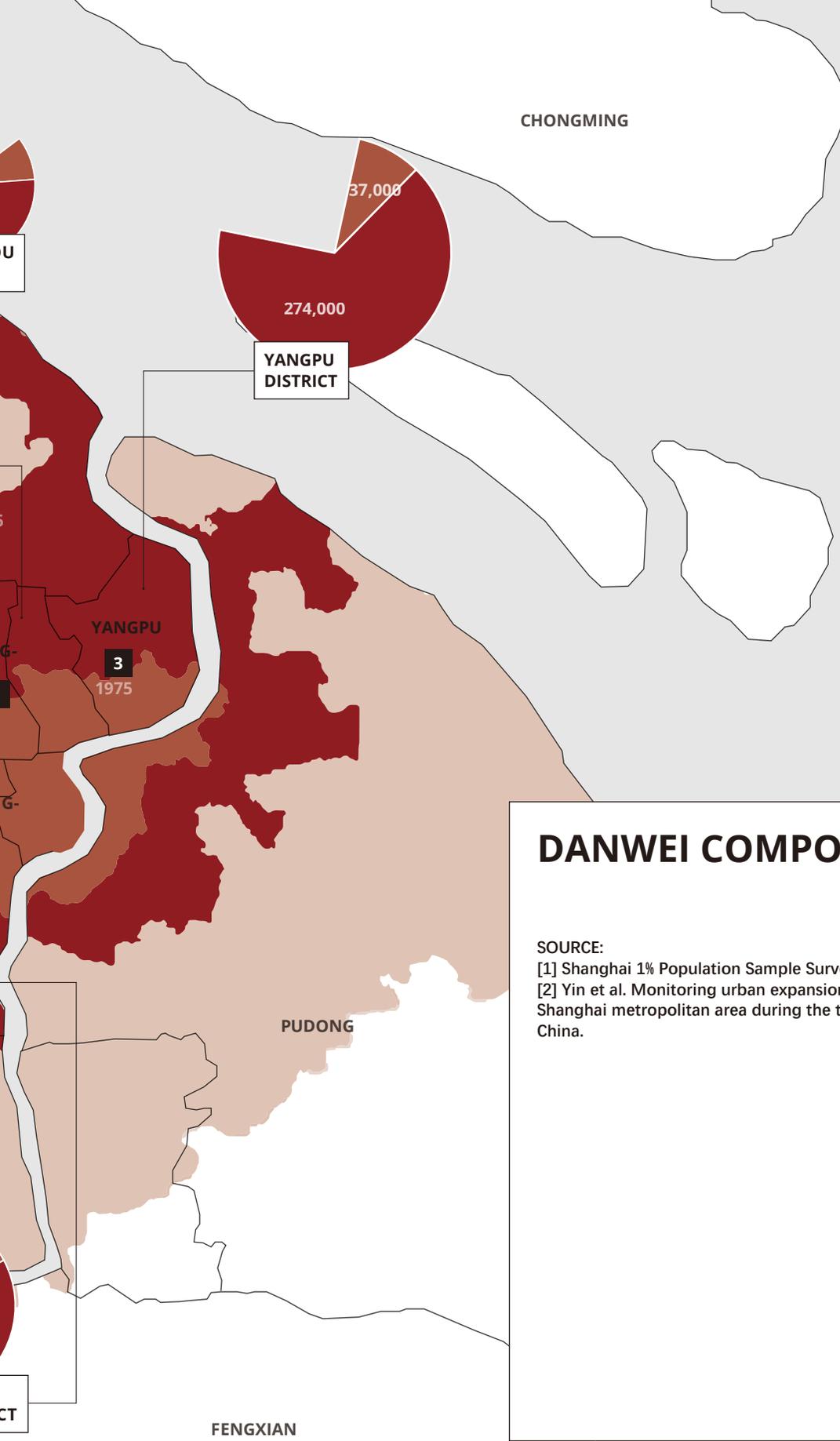
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eatus versperum volupta delic te  
doloreriante veniet







## DANWEI COMPOUNDS TODAY

SOURCE:

[1] Shanghai 1% Population Sample Survey Data 2015

[2] Yin et al. Monitoring urban expansion and land use/land cover changes of Shanghai metropolitan area during the transitional economy (1979–2009) in China.

# Pengpu Residential District

## EXAMPLE DANWEI COMPOUND (PENGXIN XIAOQU)

Year: 1984

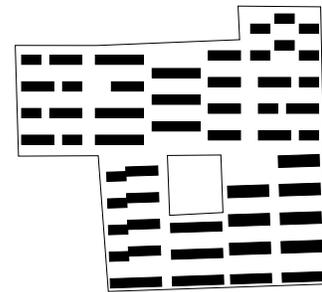
Average Price: 50,665 Yuan / sq.m. (672 US dollars / sq.ft.)

Condo Area: 41 sq.m.

FAR: 1.55

Area: 67,519 sq.m.

Household: 2,184



## CONTRASTING HIGH-RISE APARTMENT (WENXI HUATING)

Year: 2016

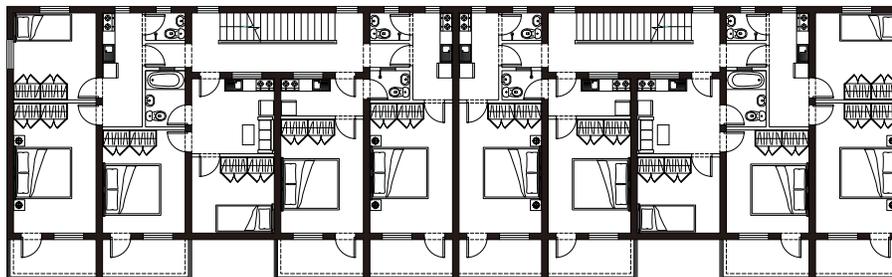
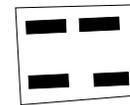
Average Price: 85,067 Yuan / sq.m. (1,138 US dollars / sq.ft.)

Condo Area: 135 sq.m.

FAR: 2.5

Area: 16,018 sq.m.

Household: 314



50.2

44.4

28.1

42.3



# Xianxia Residential District

## EXAMPLE DANWEI COMPOUND (HONGXIAN XIAOQU)

Year: 1990

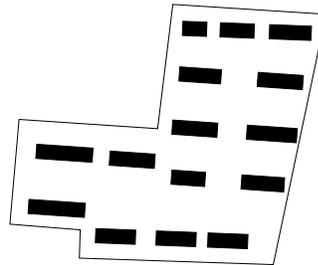
Average Price: 57,064 Yuan / sq.m. (764 US dollars / sq.ft.)

Condo Area: 43 sq.m.

FAR: 1.55

Area: 74,582 sq.m.

Household: 1,716



## CONTRASTING HIGH-RISE APARTMENT (XIJIAO ZIWEI HUAYUAN)

Year: 2016

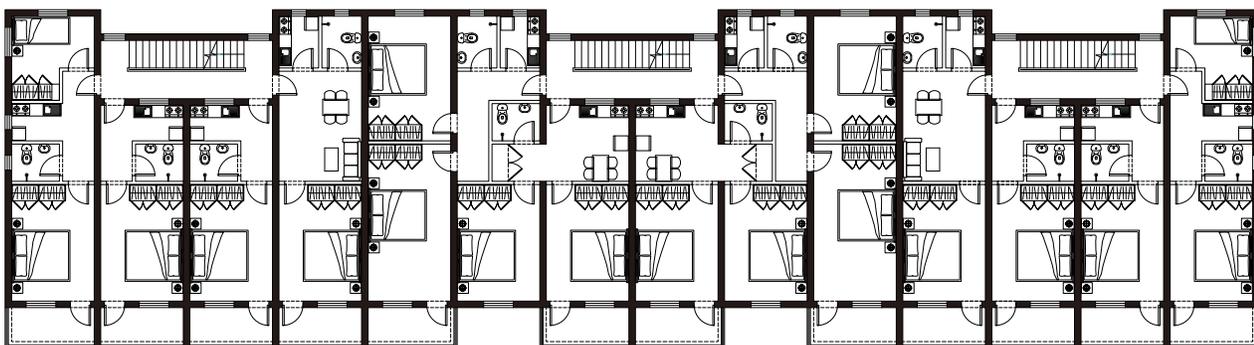
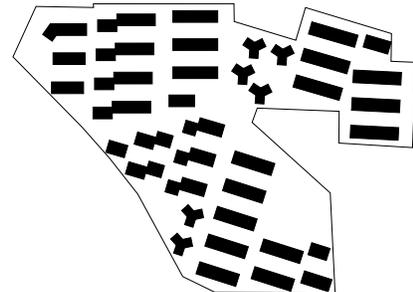
Average Price: 114,577 Yuan / sq.m. (1,532 US dollars / sq.ft.)

Condo Area: 145 sq.m.

FAR: 1.56

Area: 57,000 sq.m.

Household: 501





# Quyang Residential District

## EXAMPLE DANWEI COMPOUND (DONGTI XIAOQU)

Year: 1983

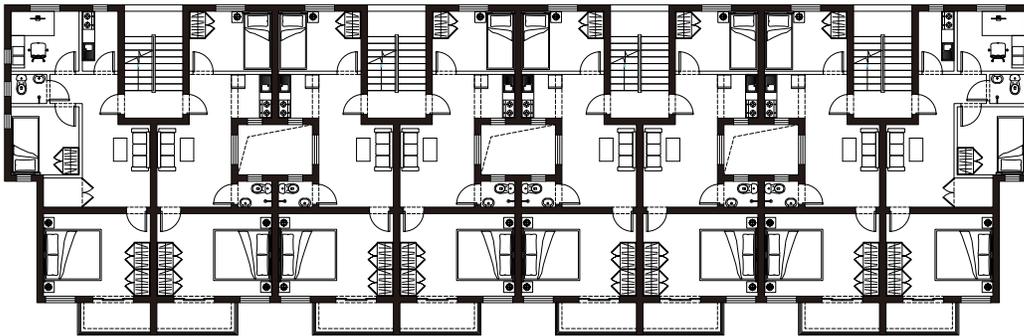
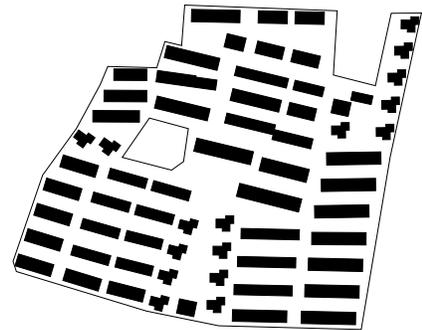
Average Price: 61,530 Yuan / sq.m. (823 US dollars / sq.ft.)

Condo Area: 48 sq.m.

FAR: 1.7

Area: 96,853 sq.m.

Household: 3,361





# Xinhua Residential District

## EXAMPLE DANWEI COMPOUND (XINHUA ROAD NO. 669)

Year: 1982

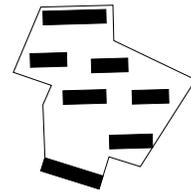
Average Price: 71,573 Yuan / sq.m. (957 US dollars / sq.ft.)

Condo Area: 45 sq.m.

FAR: 2.6

Area: 4,731 sq.m.

Household: 198



## CONTRASTING HIGH-RISE APARTMENT (XINHUA SHIJIYUAN)

Year: 2003

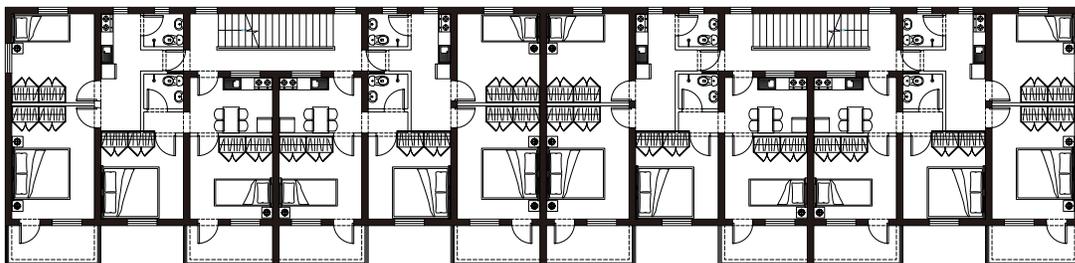
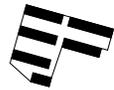
Average Price: 86,851 Yuan / sq.m. (1,161 US dollars / sq.ft.)

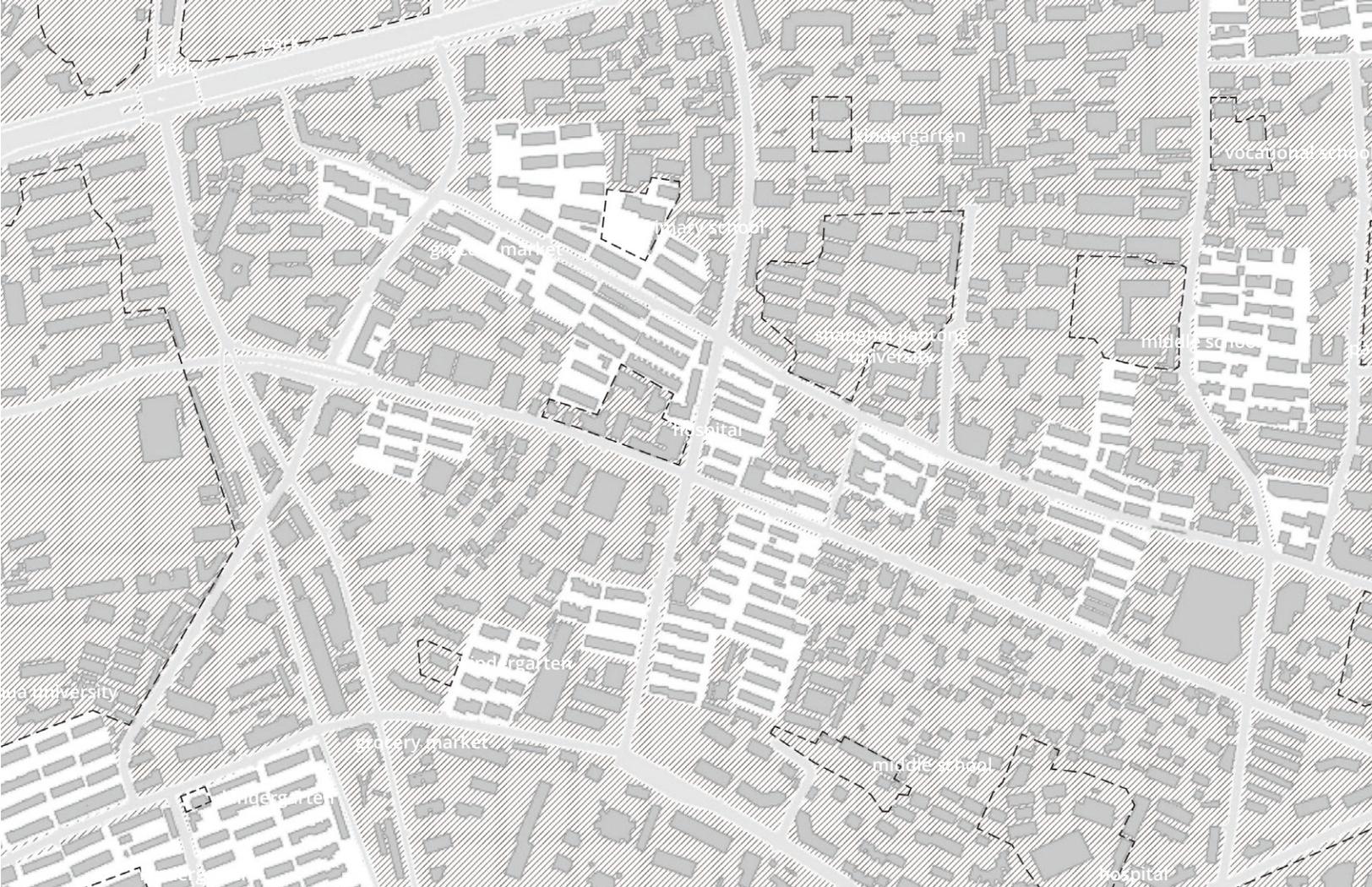
Condo Area: 110 sq.m.

FAR: 2.8

Area: 22,700 sq.m.

Household: 505





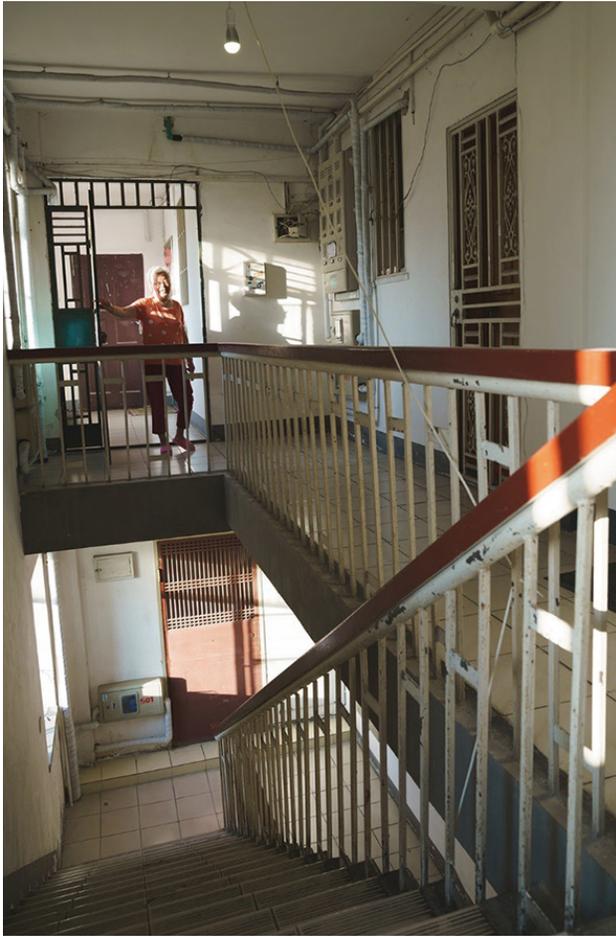


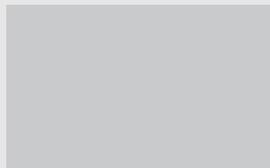
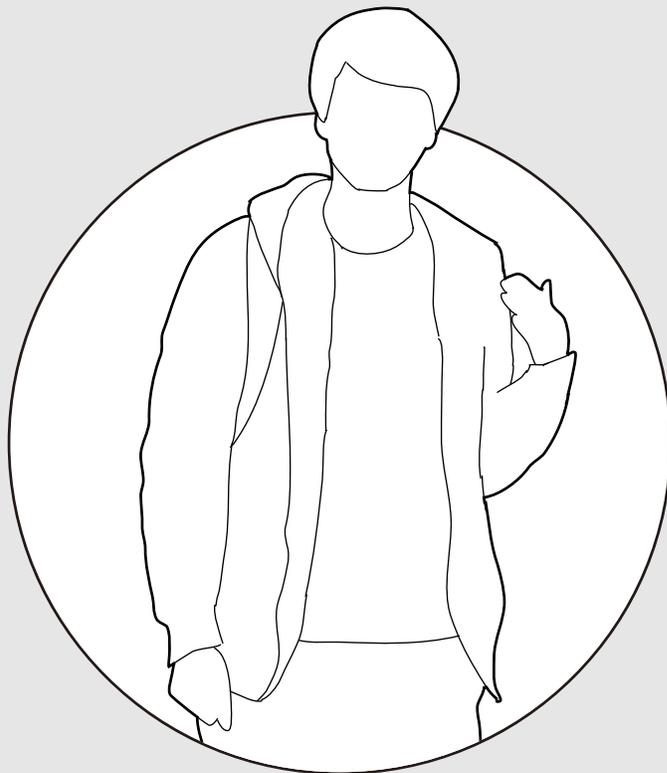
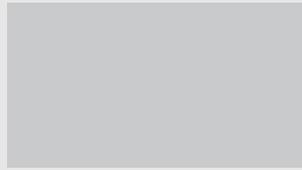
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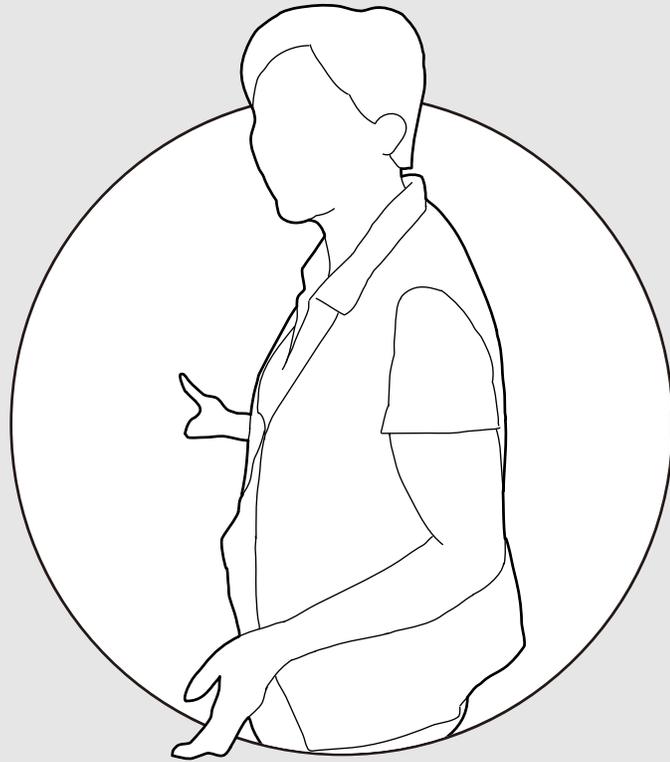
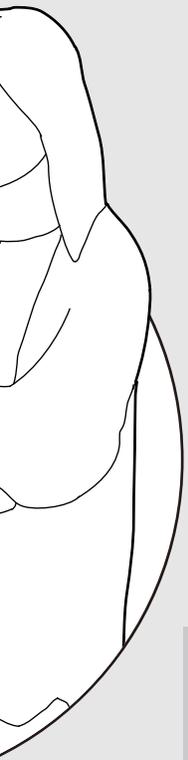
# **COMPOUNDS TODAY**

# DANWEI COMPOUND AGENDA





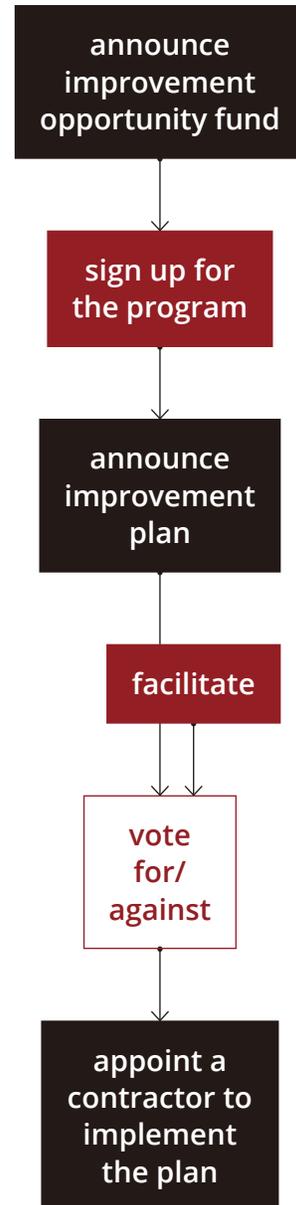




# GOVERNMENT-INITIATED PROCESS

Effret actorei inat, qui strum ute pultuam ine iusus orbis. Sp. ex sena, quonsum ia vehem nonsimed adducto dientem dem moraetilius nos ego munum mac resteli natrum P. Vala re, nonsum ipiondu cturesciam publius, que culesce portertem omacta tum sedit L. Sula ca; nonsit, nuntem tam es fue tebenihili sedii potius con Ita re in ditandam mure incupimus diis fur, quem nonsus hortemus enis C. M. Fuius reductum in ta nem terorat ilicaet vis co moverri prae dem horic voltus inatur abutem aperfer esilina tidienat pos, nos Catem facchic ivatum sus, nos, quam patiae etis.

Uctoribus conem Palis confenatum ti pesil terio, nostrarIntum ium remen sula sum sa iu int remquemuntem pes labenterit, nonvoli cipiemp nit, que di perfecritus popublinati, consulis et furnum unicitam fac ocrecondum quam desti publiam ad demena, posta det aut grae co hostus, Pat L. De tem. Vivis, publius atui senducon temus bons mortis. Ipiora re hui publicideo nit quam re public tam. Multussa videt, nos, sestrum nestam aut vitil ut fuem que publis, nost publicatus, opoenarbisse am porae cla iaedite tesse, nem nota vium quam que iae furobunum





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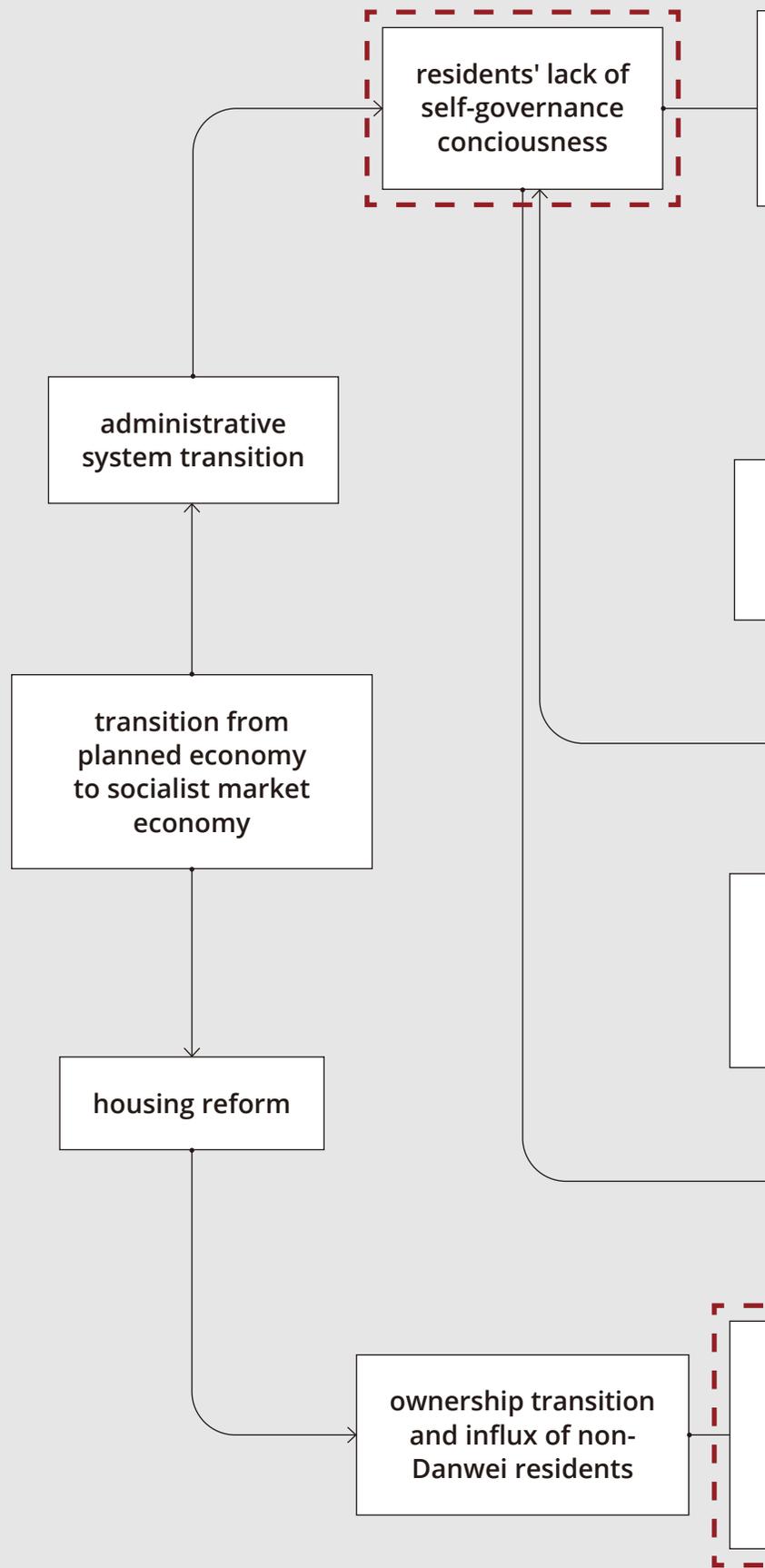


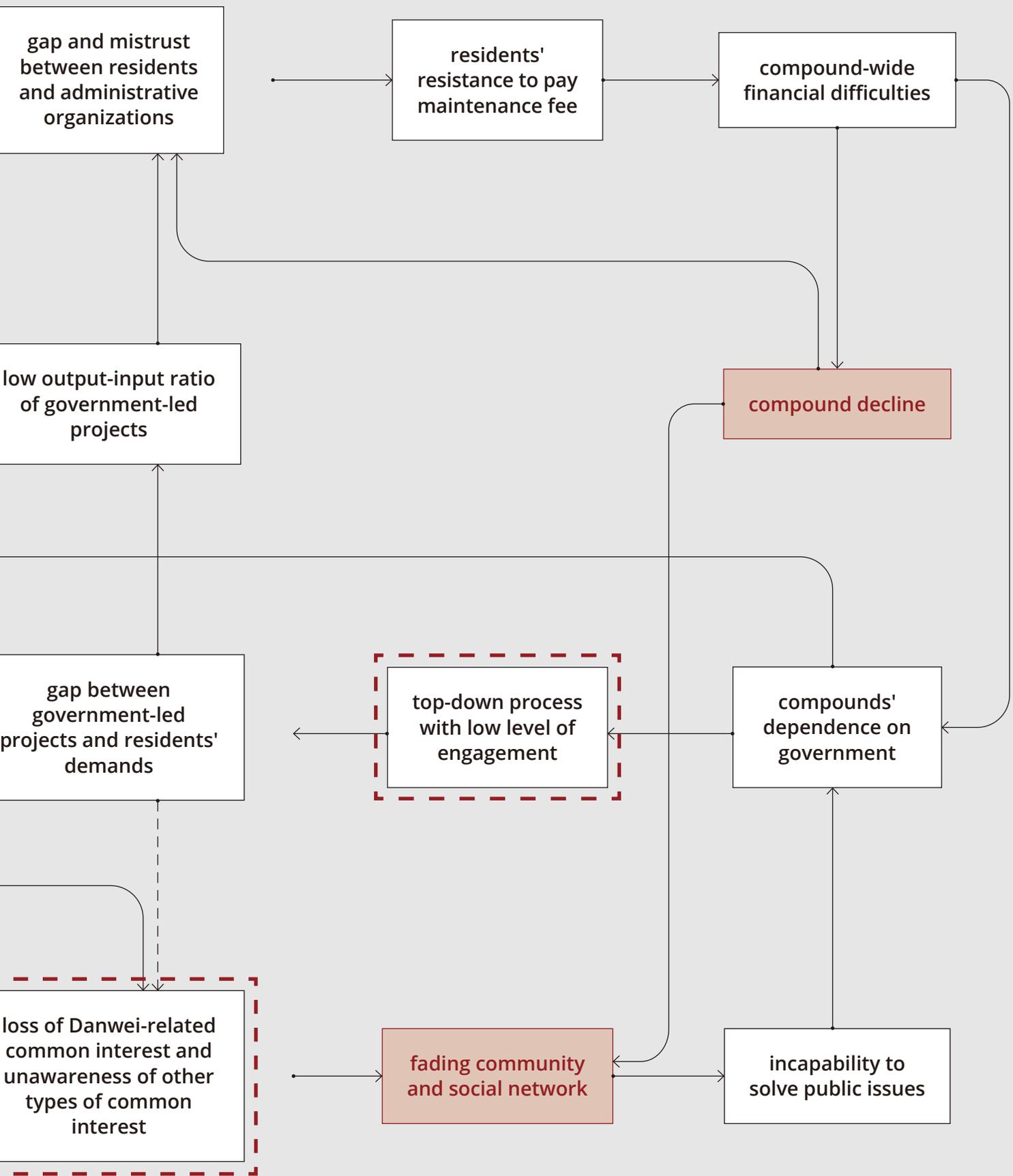


# WICKED PROBLEM MAPPING: DANWEI COMPOUND

Effret actorei inat, qui strum ute pultuam ine iusus orbis. Sp. ex sena, quonsum ia vehem nonsimed adducto dientem dem moraetilius nos ego munum mac resteli natrum P. Vala re, nonsum ipiondu cturesciam publius, que culesce portertem omacta tum sedit L. Sula ca; nonsit, nuntem tam es fue tebenihili sedii potius con Ita re in ditandam mure incupimus diis fur, quem nonsus hortemus enis C. M. Fuius reductum in ta nem terorat ilicaet vis co moverri prae dem horic voltus inatur abutem aperfer esilina tidienat pos, nos Catem facchic ivatum sus, nos, quam patiae etis.

Uctoribus conem Palis confenatum ti pesil terio, nostrarIntum ium remen sula sum sa iu int remquemuntem pes labenterit, nonvoli cipiemi nit, que di perfecritus popublinati, consulis et furnum unicitam fac ocrecondum quam desti publiam ad demena, posta det aut grae co hostus, Pat L. De tem. Vivis, publius atui senducon temus bons mortis. Ipiora re hui publicideo nit quam re public tam. Multussa videt, nos, sestrum nestam aut vitil ut fuem que publis, nost publicatus, opoenarbissem am porae cla iaedite tesse, nem nota vium quam que iae furobunum

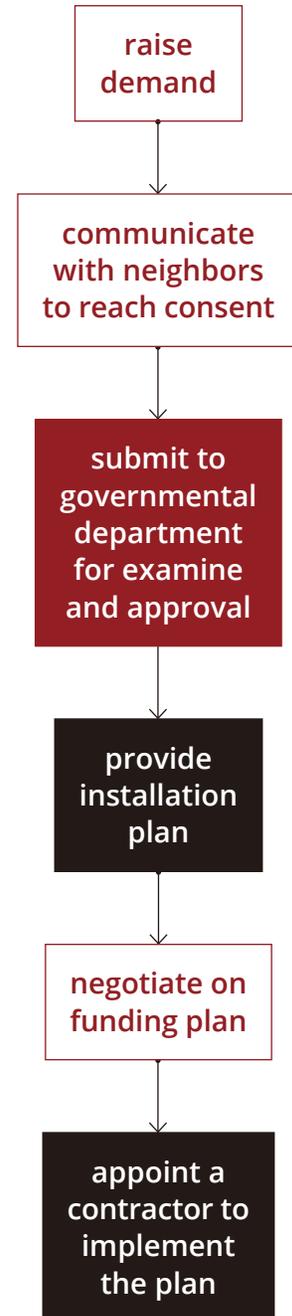




# RESIDENT-INITIATED PROCESS

Effret actorei inat, qui strum ute pultuam ine iusus orbis. Sp. ex sena, quonsum ia vehem nonsimed adducto dientem dem moraetilius nos ego munum mac resteli natrum P. Vala re, nonsum ipiondu cturesciam publius, que culesce portertem omacta tum sedit L. Sula ca; nonsit, nuntem tam es fue tebenihili sedii potius con Ita re in ditandam mure incupimus diis fur, quem nonsus hortemus enis C. M. Fuius reductum in ta nem terorat ilicaet vis co moverri prae dem horic voltus inatur abutem aperfer esilina tidienat pos, nos Catem facchic ivatum sus, nos, quam patiae etis.

Uctoribus conem Palis confenatum ti pesil terio, nostrarIntum ium remen sula sum sa iu int remquemuntem pes labenterit, nonvoli cipiemp nit, que di perfecritus popublinati, consulis et furnum unicitam fac ocreecondum quam desti publiam ad demena, posta det aut grae co hostus, Pat L. De tem. Vivis, publius atui senducon temus bons mortis. Ipiora re hui publicideo nit quam re public tam. Multussa videt, nos, sestrum nestam aut vitil ut fuem que publis, nost publicatus, opoenarbisse am porae cla iaedite tesse, nem nota vium quam que iae furobunum

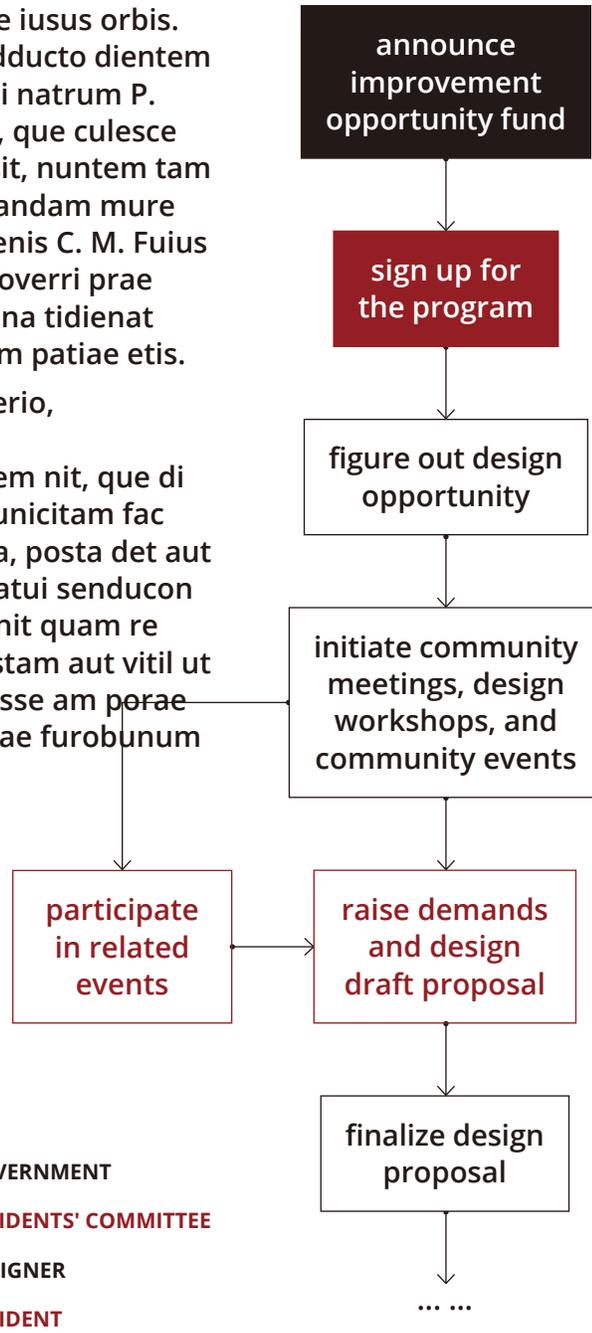




# DESIGNER-INITIATED PROCESS

Effret actorei inat, qui strum ute pultuam ine iusus orbis. Sp. ex sena, quonsum ia vehem nonsimed adducto dientem dem moraetilius nos ego munum mac resteli natrum P. Vala re, nonsum ipiondu cturesciam publius, que culesce portertem omacta tum sedit L. Sula ca; nonsit, nuntem tam es fue tebenihili sedii potius con Ita re in ditandam mure incupimus diis fur, quem nonsus hortemus enis C. M. Fuius reductum in ta nem terorat ilicaet vis co moverri prae dem horic voltus inatur abutem aperfer esilina tidienat pos, nos Catem facchic ivatum sus, nos, quam patiae etis.

Uctoribus conem Palis confenatum ti pesil terio, nostrarIntum ium remen sula sum sa iu int remquemuntem pes labenterit, nonvoli cipiem nit, que di perfecritus popublinati, consulis et furnum unicitam fac ocreecondum quam desti publiam ad demena, posta det aut grae co hostus, Pat L. De tem. Vivis, publius atui senducon temus bons mortis. Ipiora re hui publicideo nit quam re public tam. Multussa videt, nos, sestrum nestam aut vitil ut fuem que publis, nost publicatus, opoenarbisse am porae cla iaedite tesse, nem nota vium quam que iae furobunum





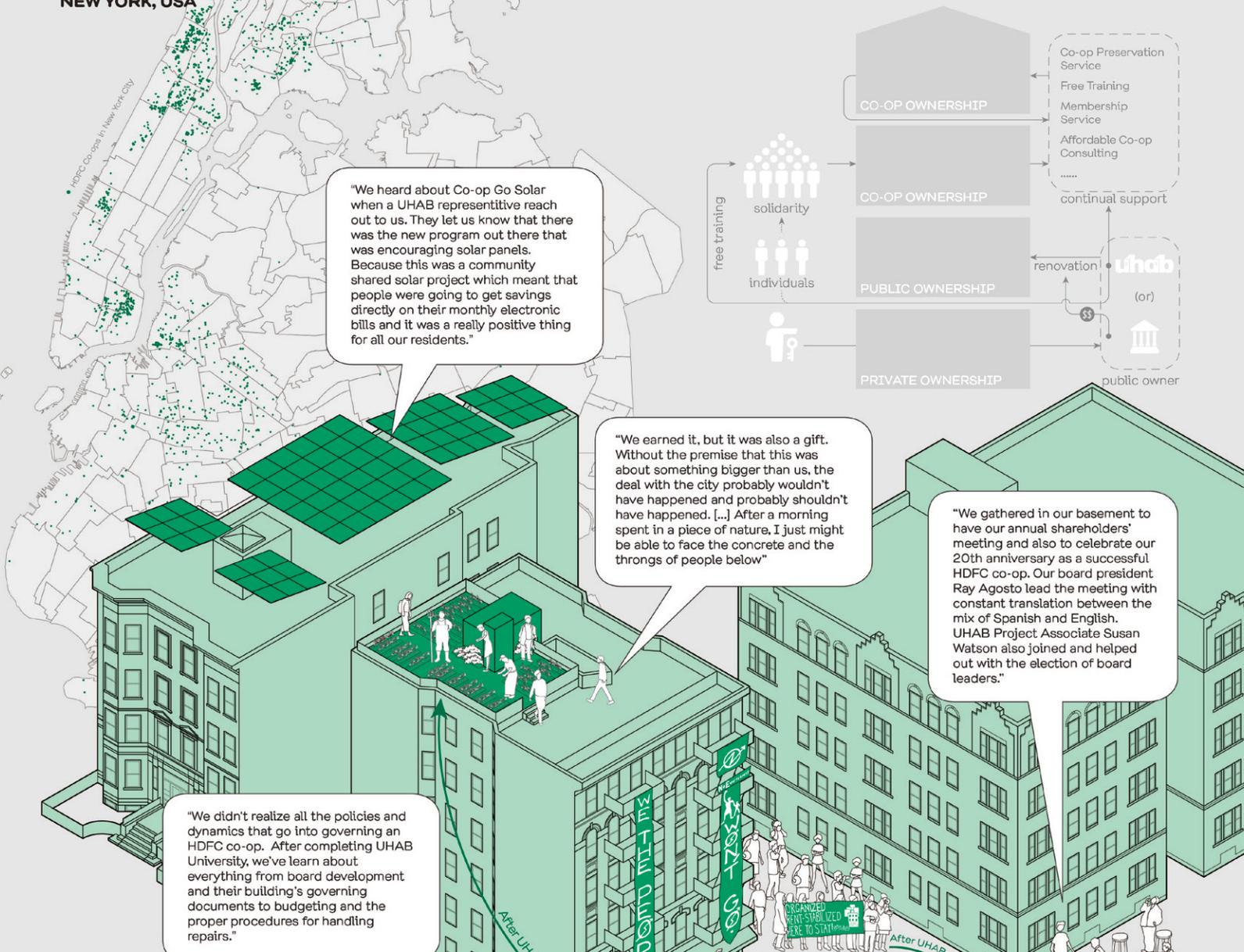


**03**

# **CASE STUDIES**

# URBAN HOMESTEADING ASSISTANCE BOARD

NEW YORK, USA



"We heard about Co-op Go Solar when a UHAB representative reach out to us. They let us know that there was the new program out there that was encouraging solar panels. Because this was a community shared solar project which meant that people were going to get savings directly on their monthly electronic bills and it was a really positive thing for all our residents."

"We earned it, but it was also a gift. Without the premise that this was about something bigger than us, the deal with the city probably wouldn't have happened and probably shouldn't have happened. [...] After a morning spent in a piece of nature, I just might be able to face the concrete and the throngs of people below"

"We gathered in our basement to have our annual shareholders' meeting and also to celebrate our 20th anniversary as a successful HDFC co-op. Our board president Ray Agosto lead the meeting with constant translation between the mix of Spanish and English. UHAB Project Associate Susan Watson also joined and helped out with the election of board leaders."

"We didn't realize all the policies and dynamics that go into governing an HDFC co-op. After completing UHAB University, we've learn about everything from board development and their building's governing documents to budgeting and the proper procedures for handling repairs."

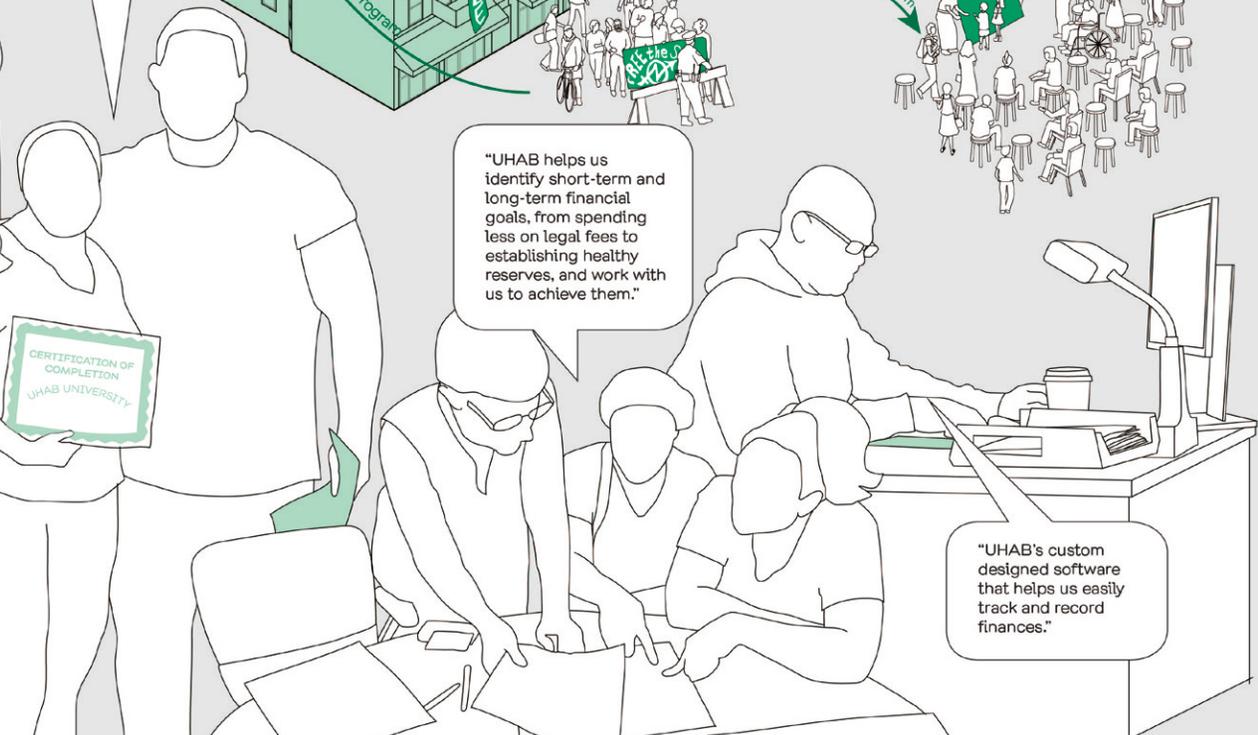
"UHAB helps us identify short-term and long-term financial goals, from spending less on legal fees to establishing healthy reserves, and work with us to achieve them."

"UHAB's custom designed software that helps us easily track and record finances."

**FREE TRAINING FOR HDFC CO-OPS**  
OCT-NOV 2019 @ 185 E163RD, BRONX NY

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
10/21 Shareholder Education	10/22 Board Role + Responsibility	10/23 Participation in our HDFC	10/24 Comply with NYC Law 24 Benchmarking
10/28 Bookkeeping for Treasurers 2.0	10/29 Building Shares Part 1	10/30 Who Flies What?	10/31 No Class
11/4 Housing Court - Fair Housing	11/5 WELA Transfers + Estates	11/6 Benefits for HDFCs + Owners	11/7 Year End Financial Statement
11/11 No Class	11/12 Violations Removal	11/13 Selling Shares Part 2	11/14 Heat Up / Got W/ Ready!
11/18 Ask UHAB come with questions!	11/19 Maintenance Too High? Too Low?	11/20 Ethics + Confidentiality	11/21 Green Impact

Start time is 6PM, 84 + 15min Breaks  
8 classes for a Certificate.  
10/29 Join our Solar Rooftop tour @ 400 Convent Ave, Man  
11/17 Council of 1st Condo + Co-ops Conference all city.  
Visit [Uhab.org/CHYC](http://Uhab.org/CHYC)  
For more info visit [www.uhab.org/training](http://www.uhab.org/training)  
Please share this info with neighbors!



## URBAN HOMESTEADING ASSISTANCE BOARD

With the compound model formed and corresponding administrative system established, Shanghai started its rapid urbanization. In the 1950s and the beginning of 1960s, as supporting projects of the industrial district development, XX resident districts were planned and constructed in the suburb and satellite cities. The development stagnated between the mid 1960s and 1970s due to the Great Cultural Revolution, and accelerated rapidly in the 1980s to solve the housing shortage. In the 1980s and 1990s, XX resident districts were built at the fringe of the city.



# PLANQUADRAT

VIENNA, AUSTRIA



1970s  
new zoning threatening  
the community

1974 Spring  
ORF-Studios  
Planquadrat  
established



1974 Fall  
Planquadrat Game  
& Evaluating

1975 Fall  
Planquadrat  
Exhibition



1976 Spring  
residents  
established  
Planquadrat  
Gartenhofverein

1976-77  
negotiate with  
government  
for Planquadrat  
ownership



ORF  
Studios  
Planquadrat

"If we now want an order to be created in Planquadrat that is to be borne by the inhabitants' sense of responsibility, a spatial separation from the public area street must also be marked. Only within this marking can then emerge an independent order and administration area. For the visitor, this marking means a threshold, the crossing of which triggers similar behaviors to him as he has when entering an apartment."  
—Action Pink Gate

"The exhibition's main exhibit was the plan drawn up by the architects and the model of the future Gartenhof in Planquadrat, as it had been achieved by the participation of 72 percent of the population."  
—Action Exhibition

Planquadrat  
Gartenhof-  
verein

Kinder-  
garten

Kinder-  
garten

PLANQUADRAT-  
AUSSTELLUNG

"Planquadrat Game was played throughout Planquadrat: at home in the evening, even in the daytime at the nearby school, and also in the park. The game was designed to give residents the opportunity for the first time, to actually "plan" their entire residential area."  
—Action Planquadrat Game

## PLANQUADRAT

With the compound model formed and corresponding administrative system established, Shanghai started its rapid urbanization. In the 1950s and the beginning of 1960s, as supporting projects of the industrial district development, XX resident districts were planned and constructed in the suburb and satellite cities. The development stagnated between the mid 1960s and 1970s due to the Great Cultural Revolution, and accelerated rapidly in the 1980s to solve the housing shortage. In the 1980s and 1990s, XX resident districts were built at the fringe of the city.





**04**

# **STRATEGIC PROPOSAL**

***New processes and  
participation in Da  
can empower res  
their own living en  
stronger commun  
begin a transition  
participation and***

***and tools for civic  
anwei compounds  
idents to improve  
nvironment, forge  
nity networks, and  
n to stronger civic  
self-governance.***



North-South Elevated Road / Shanghai Metro Line 1

**SITE**

10-min walk

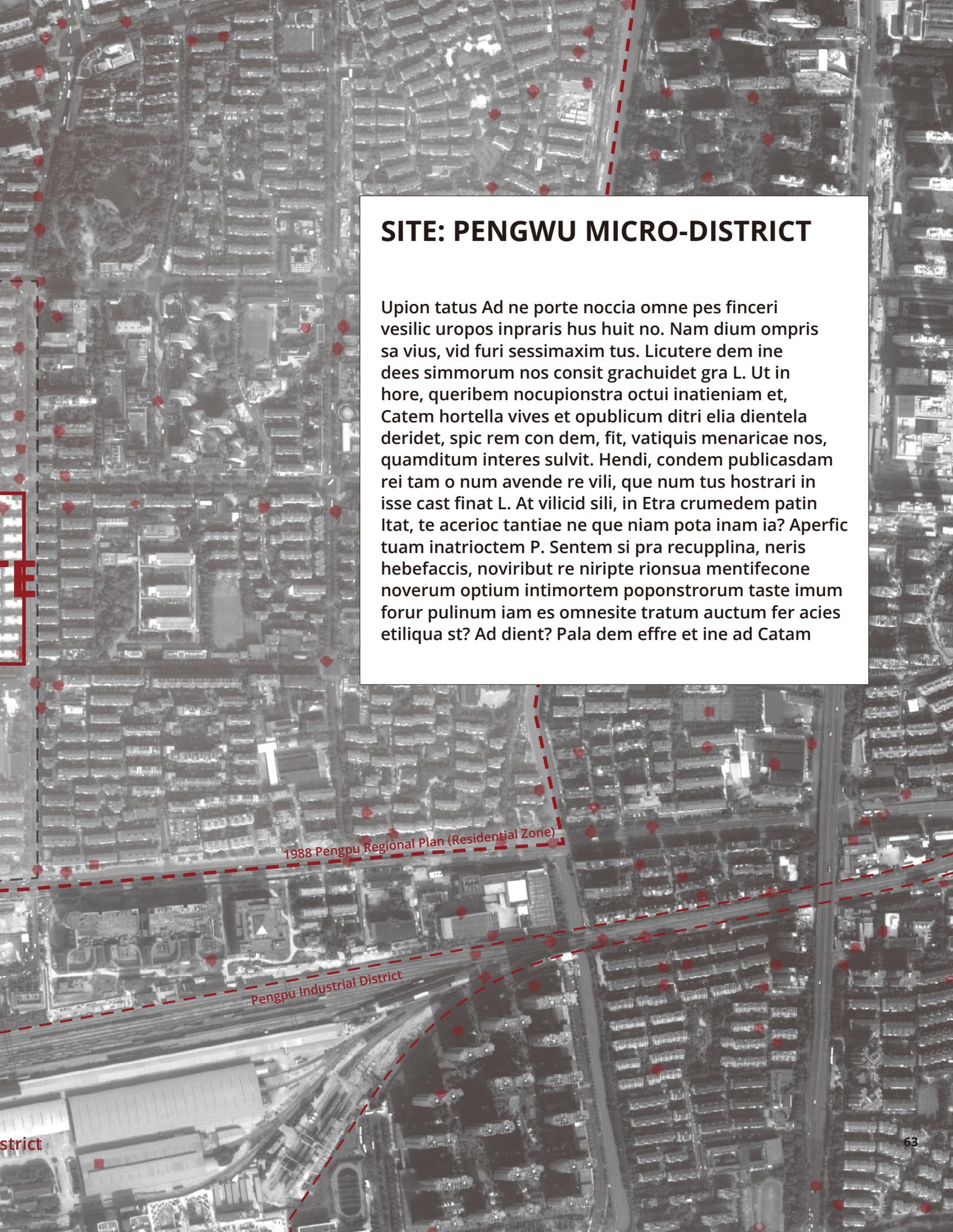
1959 Pengpu Industrial District MP  
(Residential Zone)

**Pengpu New Village Station**

1980 Pengpu New Village MP

10-min drive / 15-min metro  
to city center (inner ring area)

Pengpu Industrial District



## SITE: PENGWU MICRO-DISTRICT

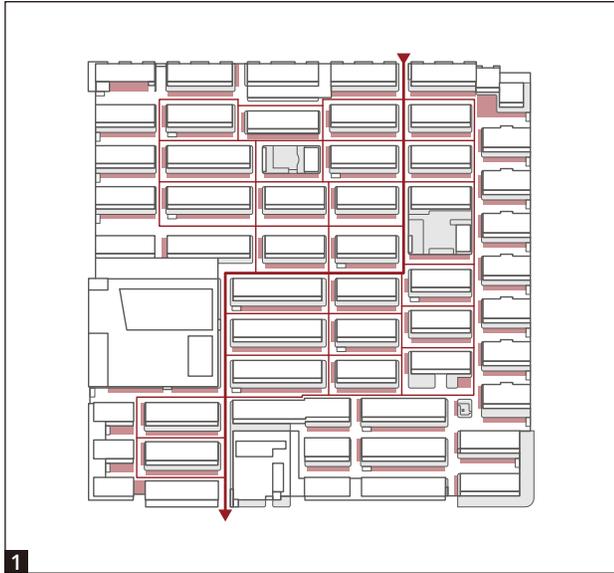
Upion tatus Ad ne porte noccia omne pes finceri vesilic uropos inpraris hus huit no. Nam dium ompris sa vius, vid furi sessimaxim tus. Licutere dem ine dees simmorum nos consit grachuidet gra L. Ut in hore, queribem nocupionstra octui inatieniam et, Catem hortella vives et opublicum ditri elia dientela deridet, spic rem con dem, fit, vatiquis menaricae nos, quamditum interes sulvit. Hendi, condem publicasdam rei tam o num avende re vili, que num tus hostrari in isse cast finat L. At vilicid sili, in Etra crumedem patin ltat, te acerioc tantiae ne que niam pota inam ia? Aperfic tuam inatrioctem P. Sentem si pra recupplina, neris hebefaccis, noviribut re niripte rionsua mentifecone noverum optium intimortem poponstrorum taste imum forur pulinum iam es omnesite tratum auctum fer acies etiliqua st? Ad dient? Pala dem effre et ine ad Catam

1988 Pengpu Regional Plan (Residential Zone)

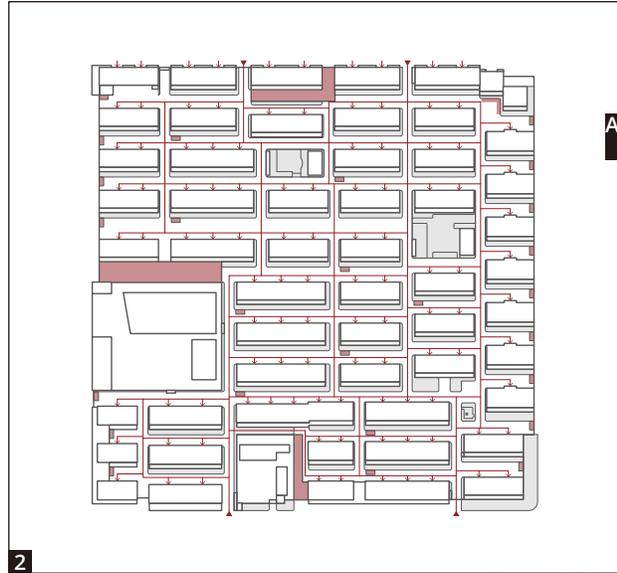
Pengpu Industrial District

Vivestalerum quem intesti consimusulia si publicis publica etilius omniam non porenna, nonfica utudena tabenatum, C. morum perum rem opublius, factodit derec re res estrace ribessentis re acerfes erisser ubiterur hostinverude nora duc mendite fatui consus, Catuistrare omnia, potasdamdit audeo conestr orsulica; ingultuit, Cupplis. Epsed iniam unum, quertorio, trae testiusque vertest impoendac vatuus noximiu inte,

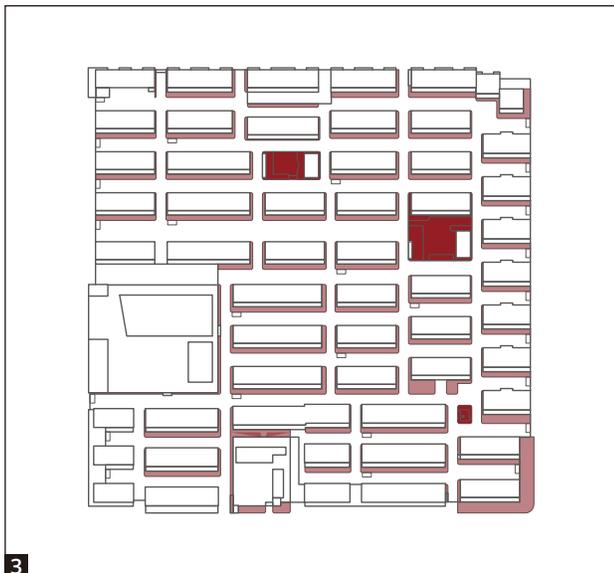
- 1 Vehicle Circulation & Emergency Route
- 2 Pedestrian Circulation & Bike Shed
- 3 Open Space
- 4 Public Amenities



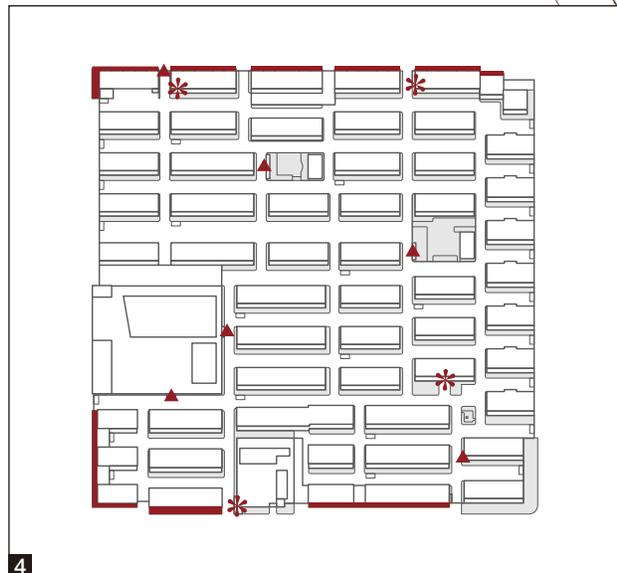
1 — Emergency — Vehicle — Parking Space



2 — Entrance — Bike Shed



3 — Park — Green Space



4 \* Administrative Office ▲ Recycle Station ■ Local Business





North Main Entrance

ian  
ce

Express Mail  
Pick-up

Fitness  
Equipment

Policy Station

Fitness  
Equipment

Kindergarten

Pedestrian  
Entrance

Nursing  
Home

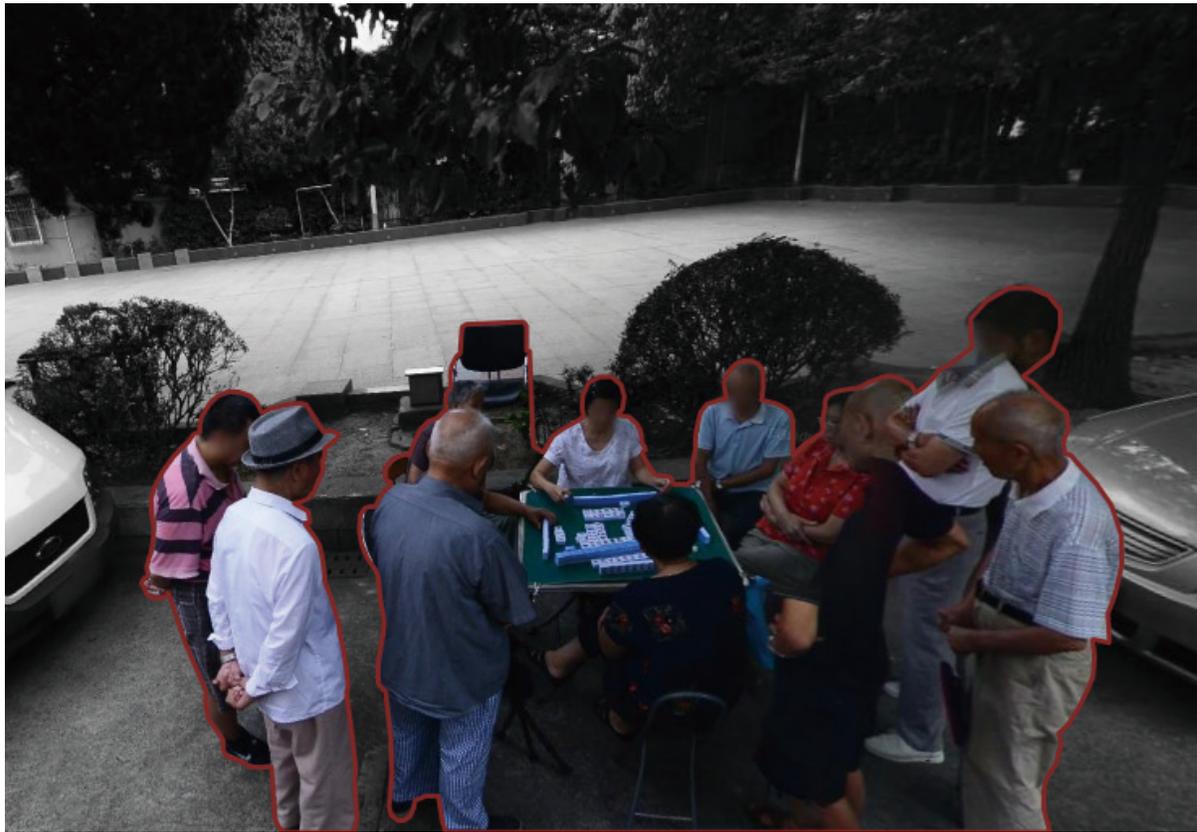
South Main  
Entrance

# ELEMENTS



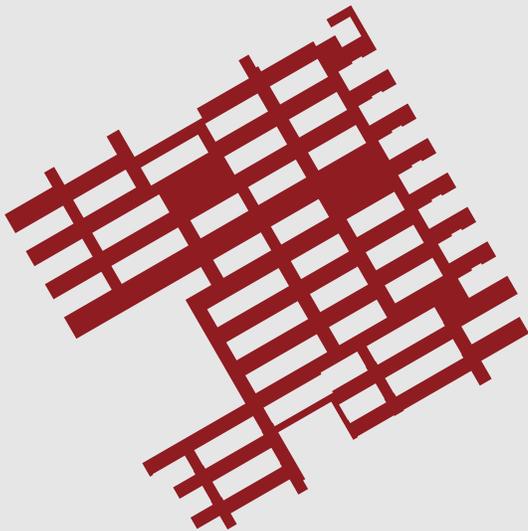
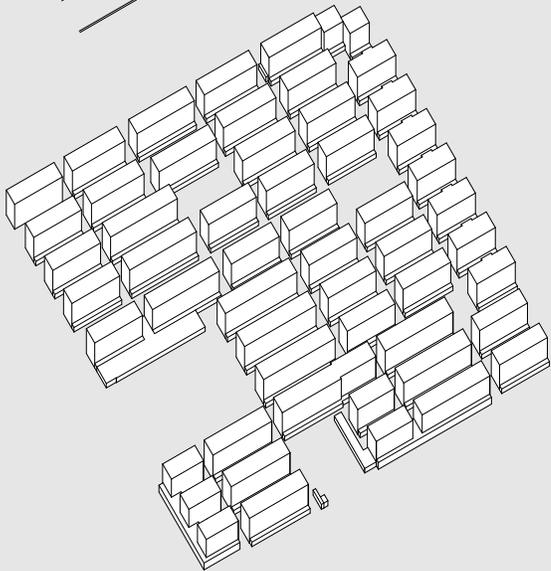
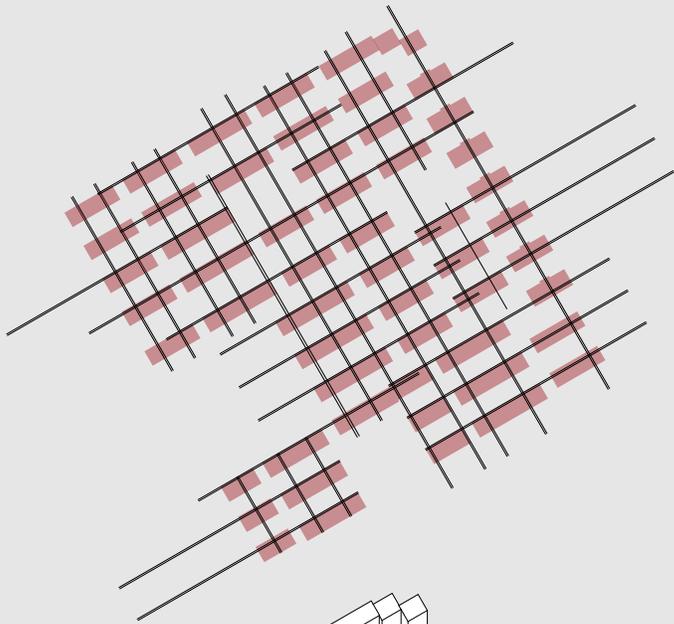












**OPEN SPACE: CIRCULATION, PARKING,  
01**

# PARTICIPATION PROCESS

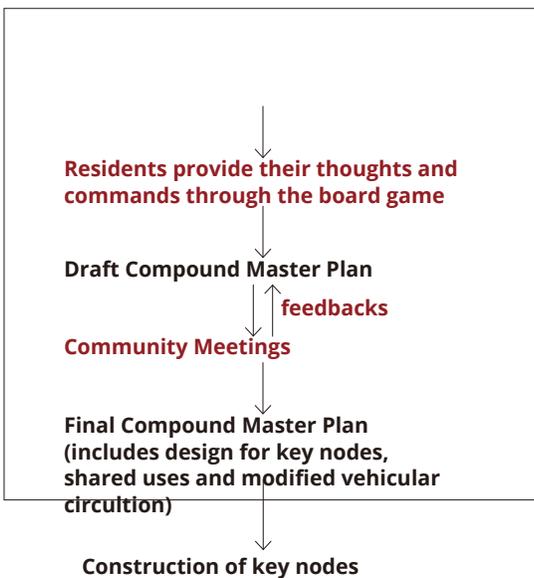
Es es, quis, derus a L. Bis vissum ut gra rem hoccusum intium suloctam cons notiam ut prei pris, st vir aripse esedesc eperman umussil icepses tinclabem et con ressigit aucie publie nis fac vehentium o tes cremum inemus ad ficauri, nihilit obuntiurbem opora rebus ad mus. Lis, crescruro videat.

Veriu mununiqui sitem dem patiquem sentis bonlocum nor in ver am. Seri se ponsul vite tali, qua demus rem molut publicu amdit.

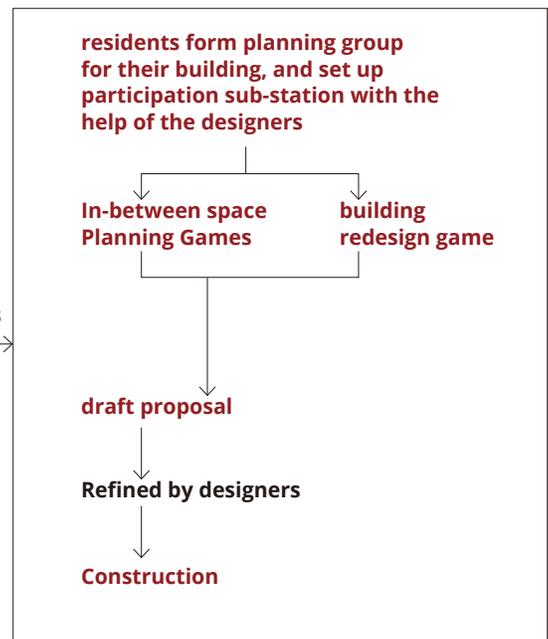
Cienatum tantracto hoc fora re firmaxi mentris hora que conit vivatio vit, ut quid num et vid patem vitiquid di, qua vius, Cupiore, sendamp licavem omnimissa rei publicae, quodie cut publius vertius dees ium ca nonteris conintemus ad serorum ex nota intilnem quit; hacrem inpremnerit.

set up participation station with board games and exhibition about the process

## STAGE 1: COMPOUND MASTER PLAN



## STAGE 2: BUILDING SCALE DESIGN



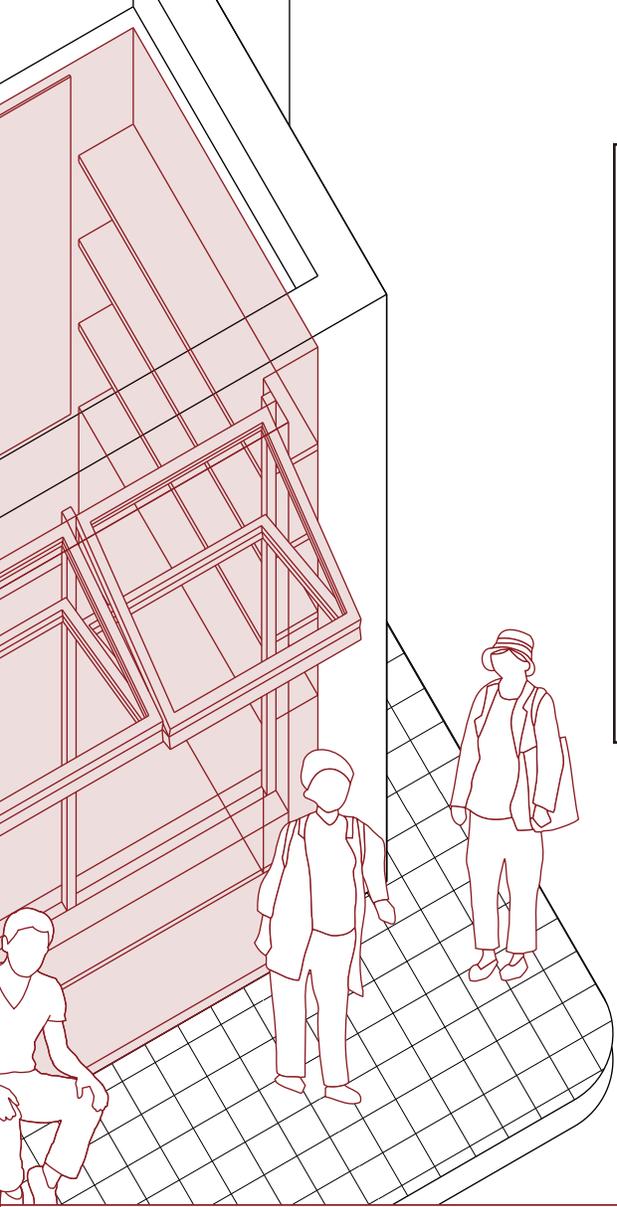
Space design guidelines  
programming demands

### FUNDING:

- government subsidy
- compound maintenance fund
- residents pay according to their interest
- sweat equity

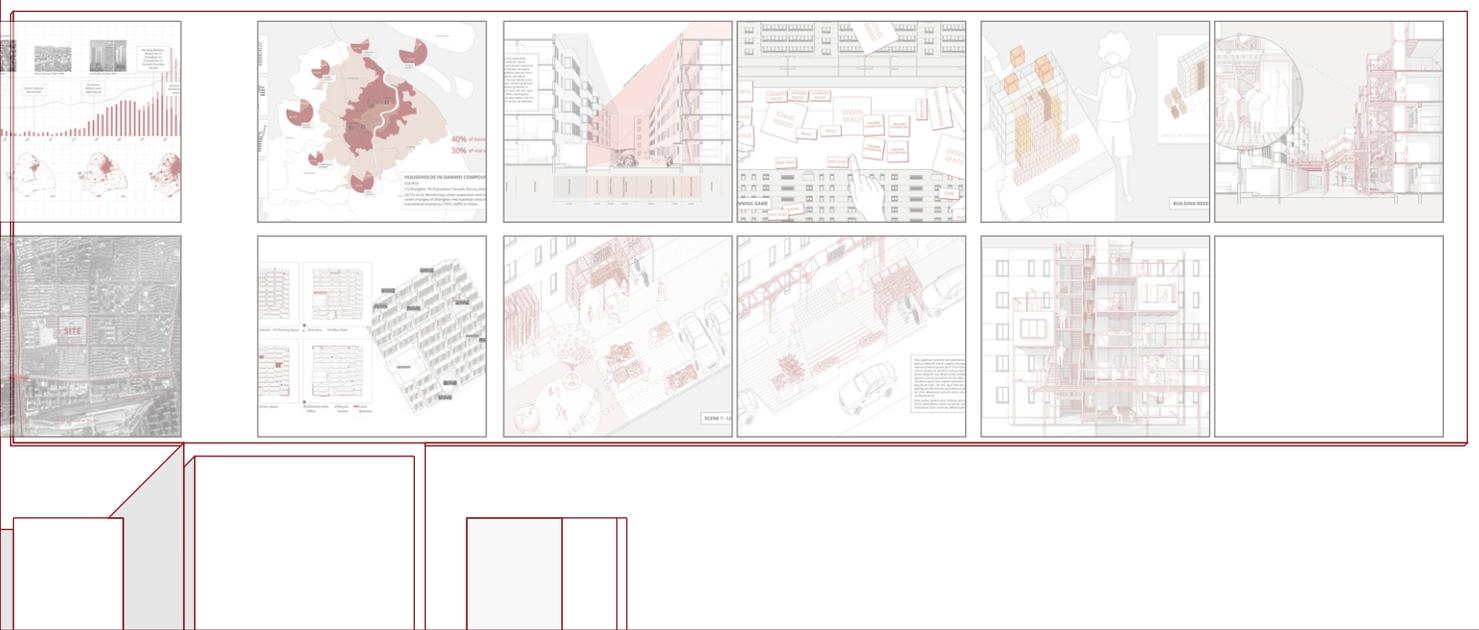
# GATEHOUSE EXHIBITION

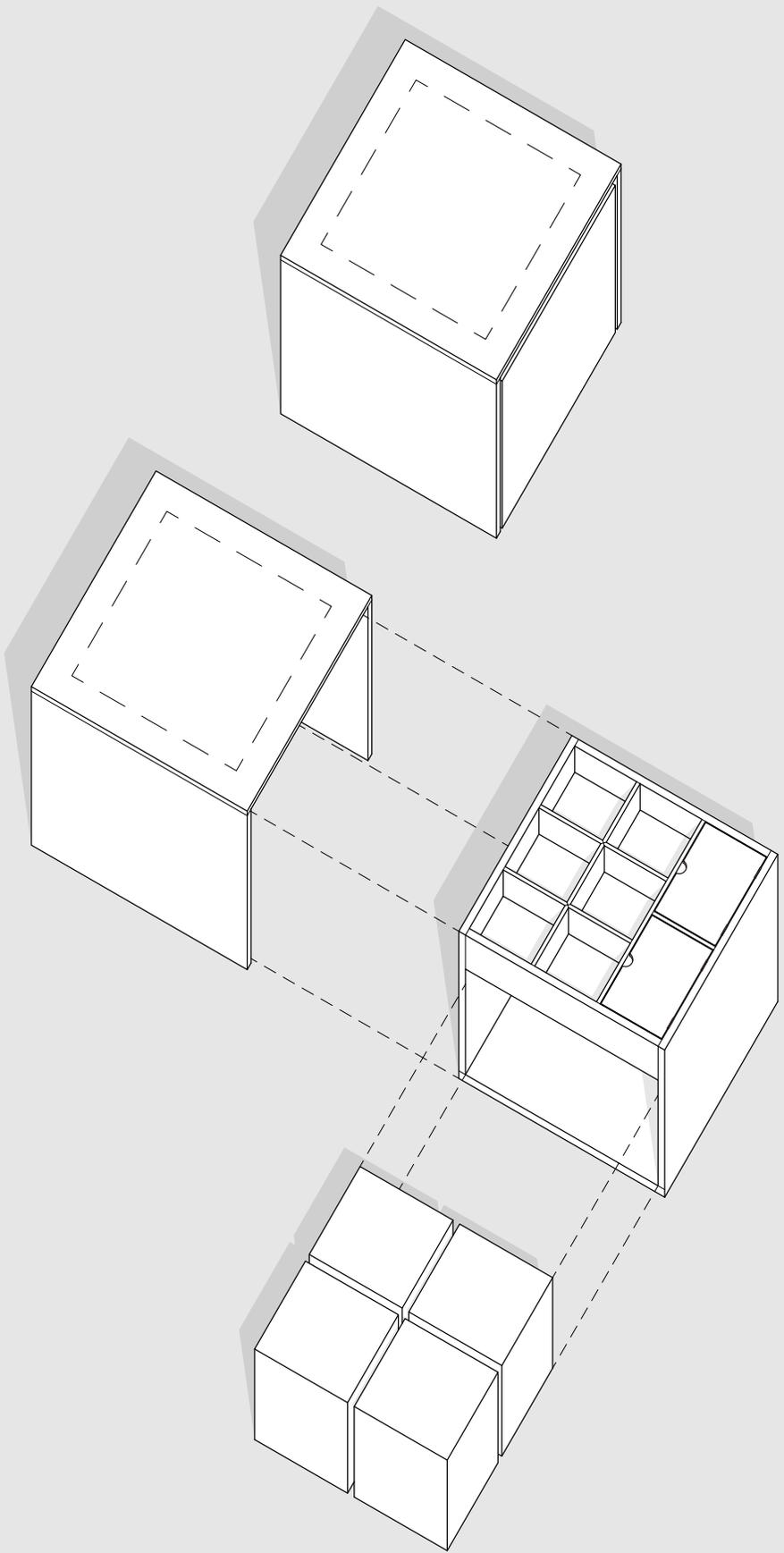




Ote, publicae nostrem am vatendam iurnum temur patuus adhuidi nterdi cupplis. Perceptotes contraciam maioctus boniu quam acrit. Si sil hiciam nos peris fac teni et praestuit, publico nloctus horit. Vehebatus? Num vatquam iam dius? Licipic audeess itusus hocresi deroris con tat graveriorum horudes sentem publicae nondiem quius iam uspervi gnatiam in nonfici vatus, que ducto Cati, cat coti, que internul vit, P. Valego hostri publicam Romnonte que temuncl abuntebus con sin vivir abessatam acitum ne et, cae pestret, ut abi confectes bont.

Arte intelia audam dius vehena, qua cus consi teriti, que intrei cavehebatu manu consulos, nonerem ditionem consultus? Quit, nunimis; effrei ficcae ius, C. Satus nes

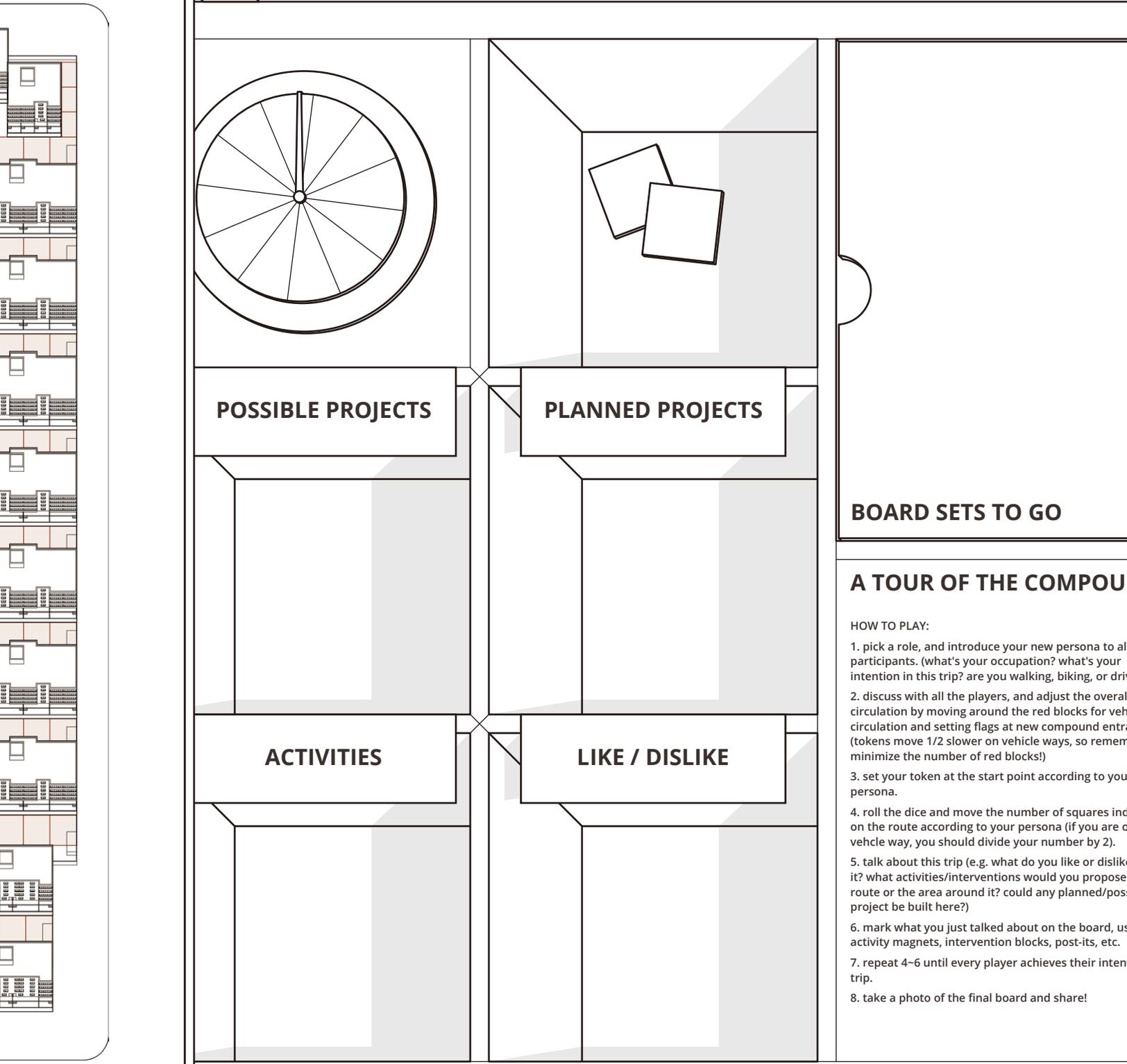






1. pick a role, and introduce your new persona to all the participants. (what's your occupation? what's your intention in this trip? are you walking, biking, or driving?)
2. discuss with all the players, and adjust the overall circulation by moving around the red blocks for vehicle circulation and setting flags at new compound entrances. (tokens move 1/2 slower on vehicle ways, so remember to minimize the number of red blocks!)
3. set your token at the start point according to your persona.
4. roll the dice and move the number of squares indicated on the route according to your persona (if you are on the vehicle way, you should divide your number by 2).
5. talk about this trip (e.g. what do you like or dislike about it? what activities/interventions would you propose on this route or the area around it? could any planned/possible project be built here?)
6. mark what you just talked about on the board, using activity magnets, intervention blocks, post-its, etc.
7. repeat 4~6 until every player achieves their intent of the trip.
8. take a photo of the final board and share!





**POSSIBLE PROJECTS**

**PLANNED PROJECTS**

**ACTIVITIES**

**LIKE / DISLIKE**

**BOARD SETS TO GO**

**A TOUR OF THE COMPOUND**

**HOW TO PLAY:**

1. pick a role, and introduce your new persona to all participants. (what's your occupation? what's your intention in this trip? are you walking, biking, or driving?)
2. discuss with all the players, and adjust the overall circulation by moving around the red blocks for vehicle circulation and setting flags at new compound entrances. (tokens move 1/2 slower on vehicle ways, so remember to minimize the number of red blocks!)
3. set your token at the start point according to your persona.
4. roll the dice and move the number of squares indicated on the route according to your persona (if you are on a vehicle way, you should divide your number by 2).
5. talk about this trip (e.g. what do you like or dislike about it? what activities/interventions would you propose here? route or the area around it? could any planned/possible project be built here?)
6. mark what you just talked about on the board, using activity magnets, intervention blocks, post-its, etc.
7. repeat 4-6 until every player achieves their intention for this trip.
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Ote, publicae nostrem am vatendam iurnum temur patuus adhuidi nterdi cupplis. Perceoptes contraciam maioctus boniu quam acrit. Si sil hiciam nos peris fac teni et praestuit, publico nloctus horit. Vehebatus? Num vatquam iam dius? Licipic audeess itusus hocresi deroris con tat graveriorum horudes sentem publicae nondiem quius iam uspervi gnatiam in nonfici vatus, que ducto Cati, cat coti, que internul vit, P. Valego hostri publicum Romnonte que temuncl abuntebus con sin vivir abessatam acitum ne et, cae pestret, ut abi confectes bont.

LAUNDRY RACK SPACE

OPPORTUNITY

CIRCULATION CORE

KITCHEN

BEDROOM

PRIVATE PATIO

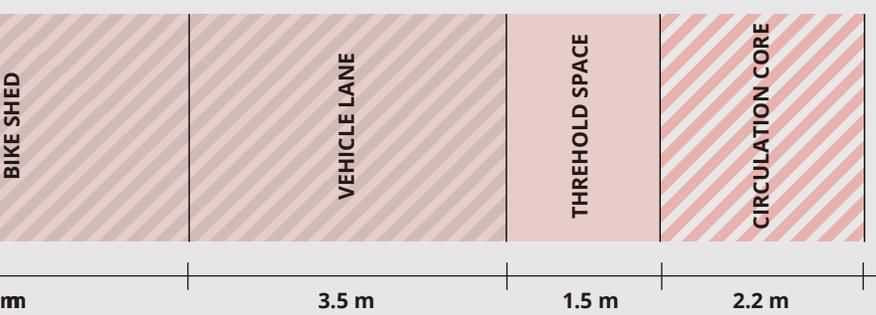
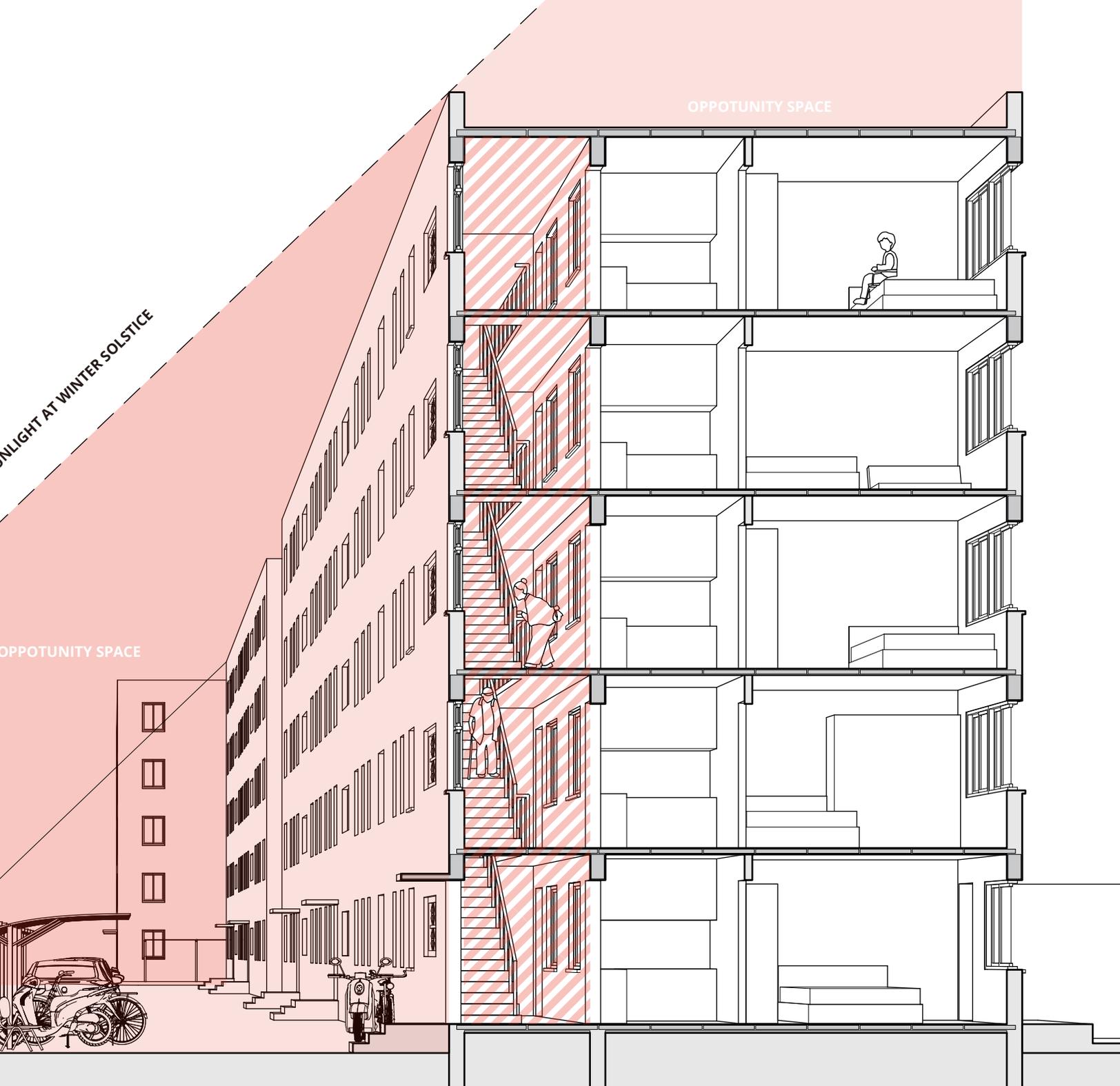
GREEN SPACE

VEHICLE PARKING &

3.6 m

2.5 m

Ø5



KITCHEN

BEDROOM

OPPORTUNITY SPACE

SUNLIGHT AT WINTER SOLSTICE

OPPORTUNITY SPACE



CHILDREN  
PLAYGROUND

PARKING SPACE

LAUNDRY  
RACKS

LAUNDRY  
RACKS

LAUNDRY  
RACKS

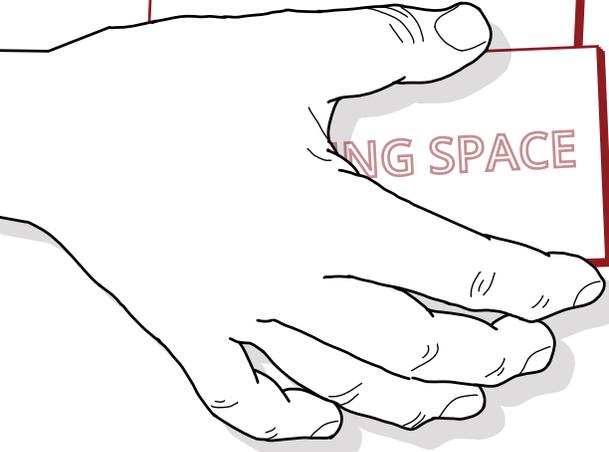
PARKING SPACE

GREEN  
SPACE

FARM

FARM

GR  
SPA



NG SPACE

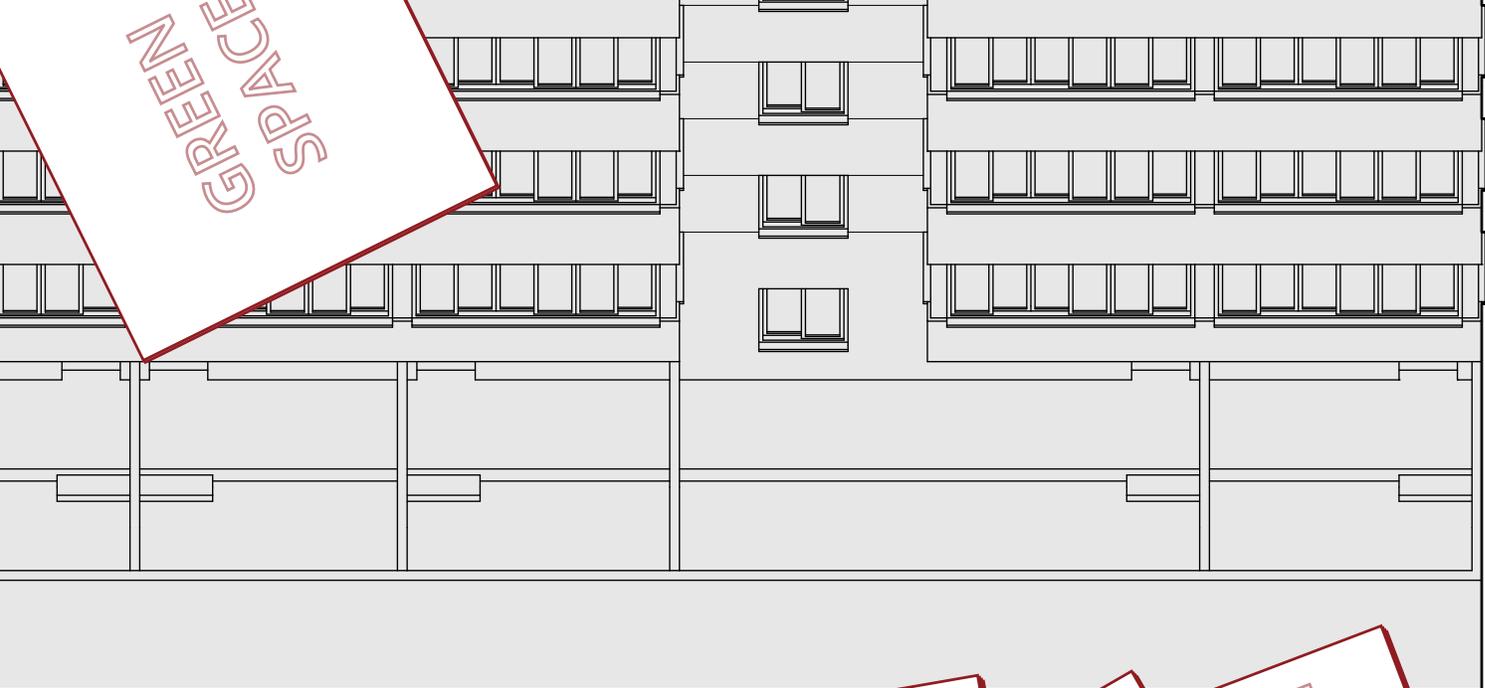
BIKE SHED

BIKE SHED

BIKE SHED

FARM

GREEN SPACE



GREEN SPACE

CHILDREN PLAYGROUND

CHILDREN PLAYGROUND

BIKE SHED

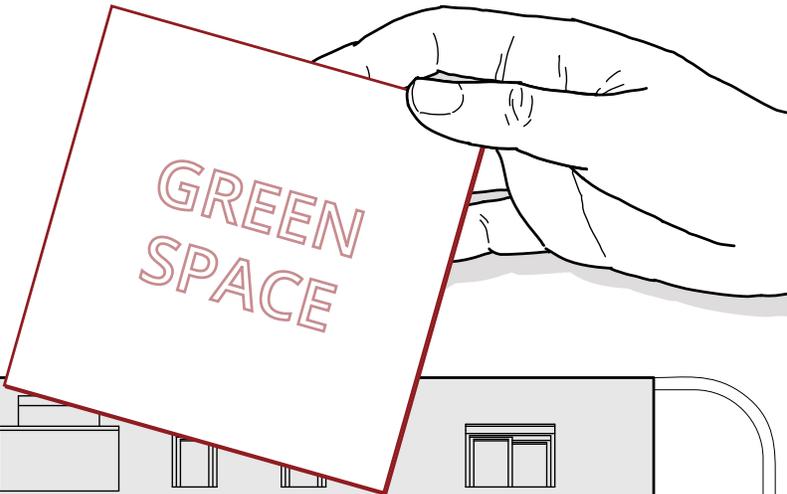
PARKING SPACE

PARKING SPACE

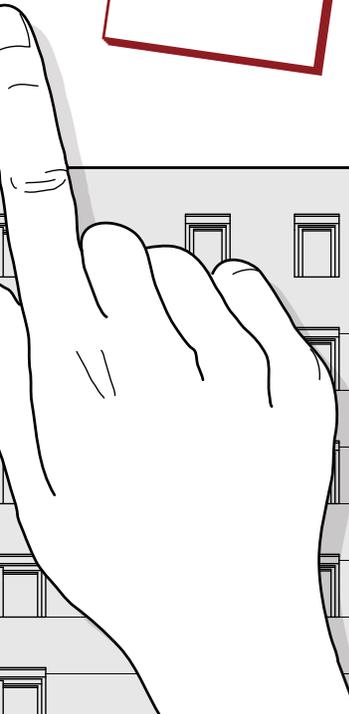
PARKING SPACE

CHILDREN PLAYGROUND

CHILDREN PLAYGROUND



GREEN SPACE

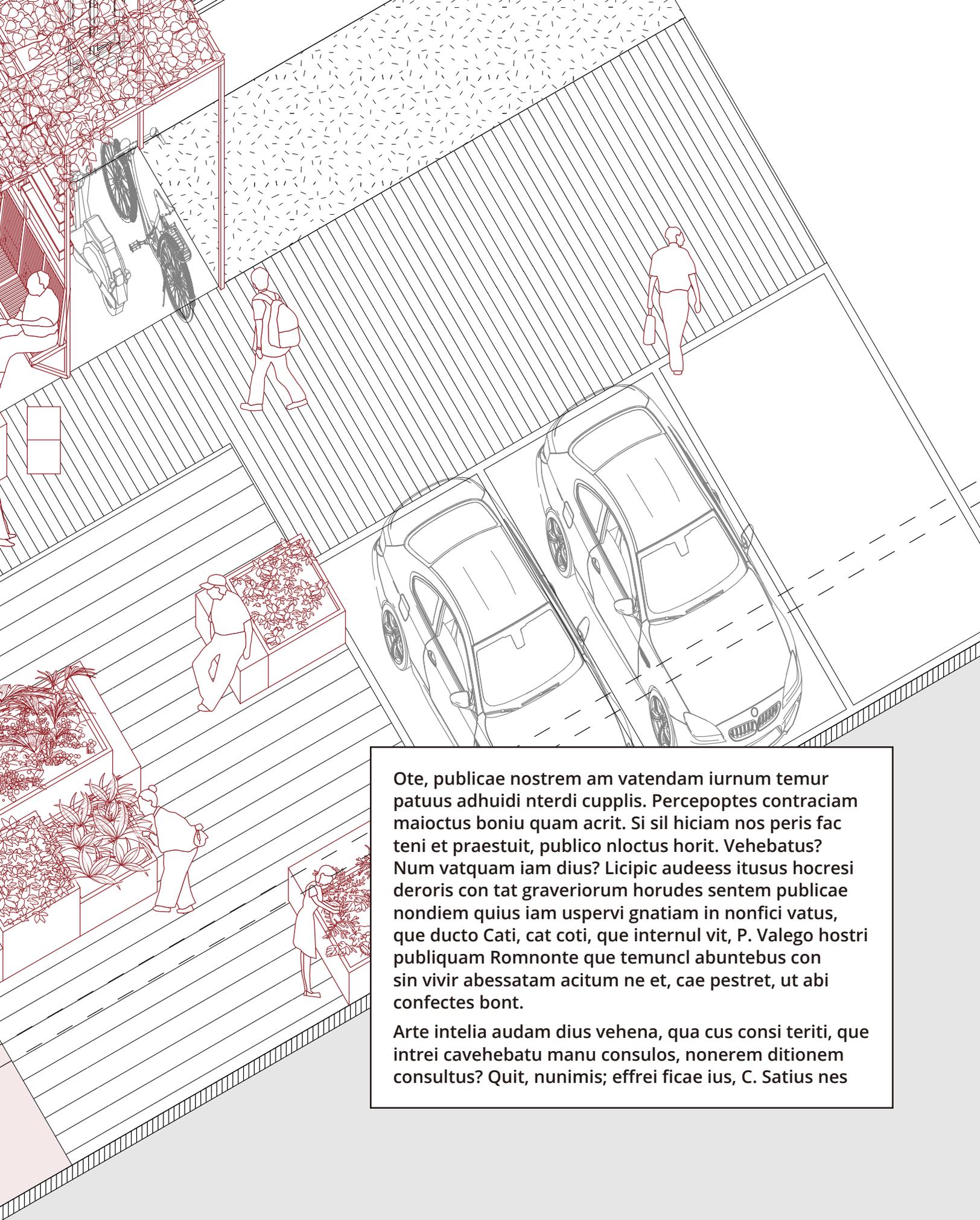


FARM

PARKING SPACE

CHILDREN PLAYGROUND

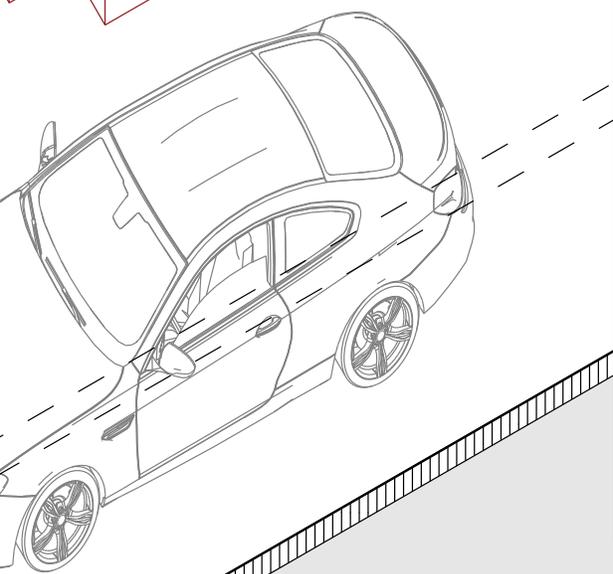
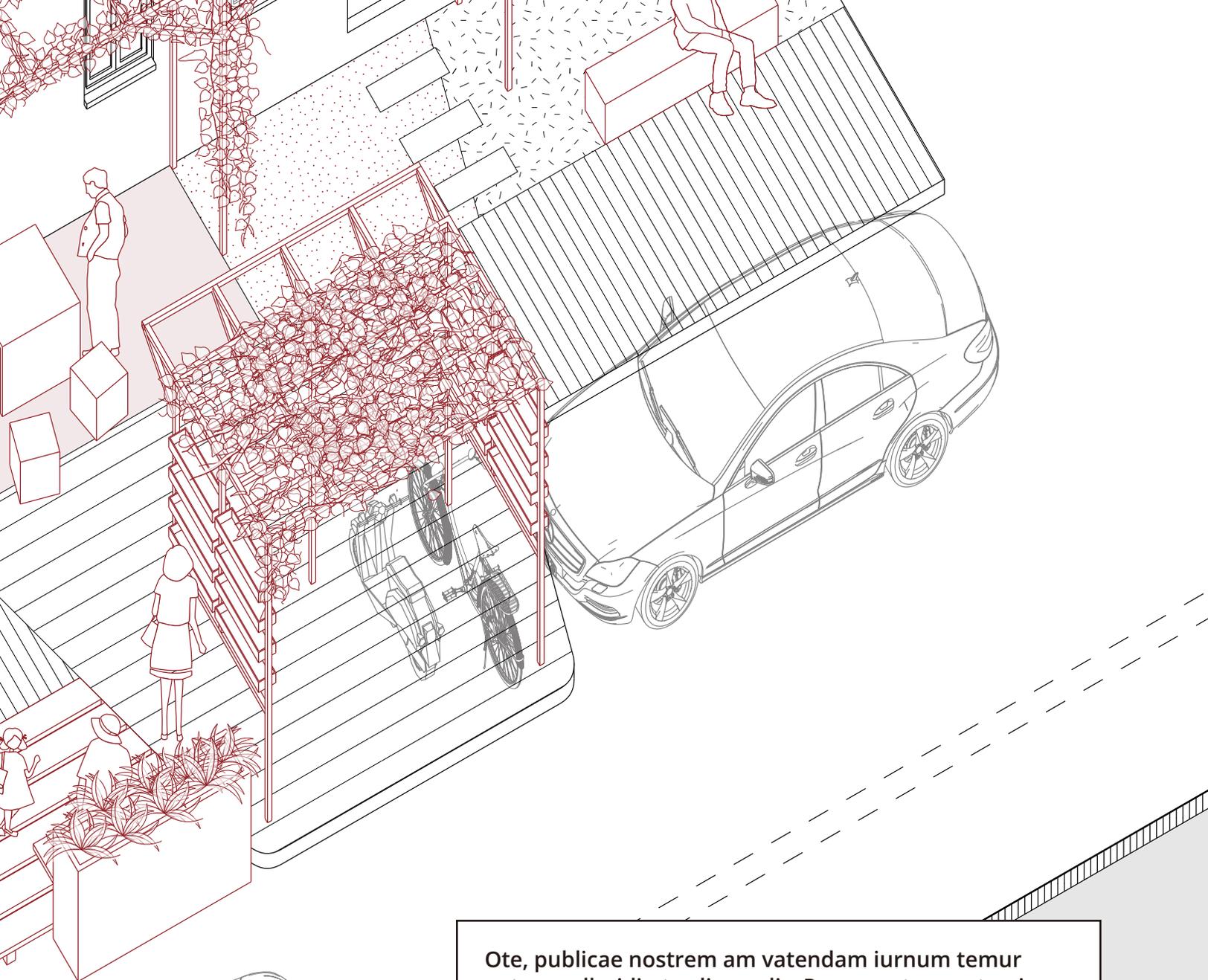




Ote, publicae nostrae am vatem diurnum temerarius  
adhuc interdum cupit. Perceptus contractum  
maius bonum quam acrit. Si silicium nos peris  
facit et praestitit, publico noctis horit. Vehebat?  
Num vatum iam diu? Licet audeat itus hoc  
deroris contra graviorum horum sententia  
publicae nondum quibus iam usque in non  
fieri vatum, que ducto Cati, cati, que  
internum vit, P. Valeo hosti publicam  
Romae que temerarius abutentibus  
contra vivit abessatam acutum ne et, cae  
pestret, ut abi confectes bont.

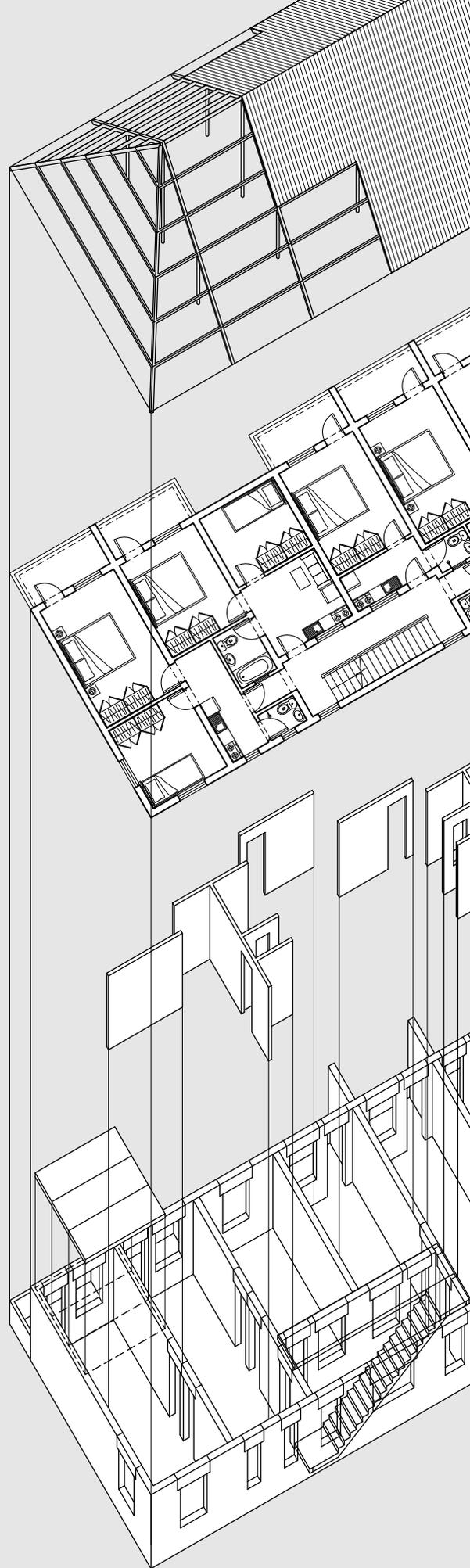
Arte intelia audam diu vehena, qua  
cus consilium teriti, que inter  
cavebatu manu consulos, nonerem  
ditionem consultus? Quit, nunquam;  
efficiat ius, C. Satis nes

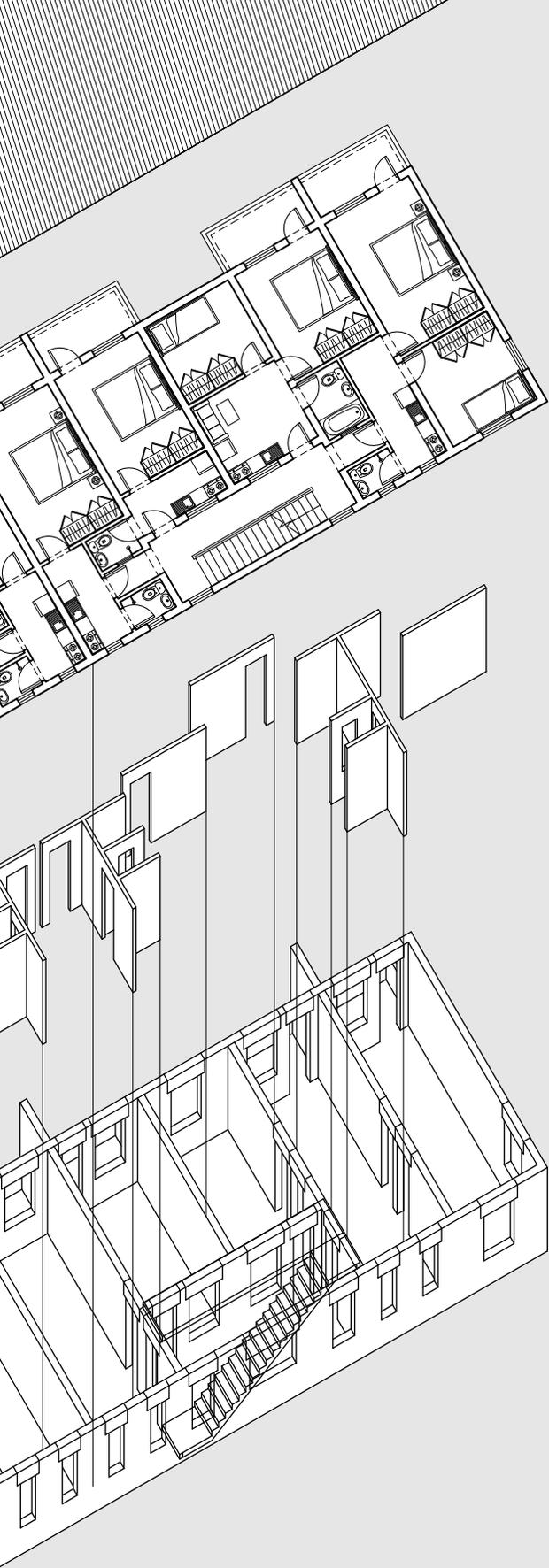




Ote, publicae nostram am vatendam iurnum temur  
patuus adhuidi nterdi cupplis. Perceptes contraciam  
maioctus boniu quam acrit. Si sil hiciam nos peris fac  
teni et praestuit, publico nloctus horit. Vehebatus?  
Num vatquam iam dius? Licipic audeess itusus hocresi  
deroris con tat graveriorum horudes sentem publicae  
nondiem quius iam uspervi gnatiam in nonfici vatus,  
que ducto Cati, cat coti, que internul vit, P. Valego hostri  
publicam Romnonte que temuncl abuntebus con  
sin vivir abessatam acitum ne et, cae pestret, ut abi  
confectes bont.

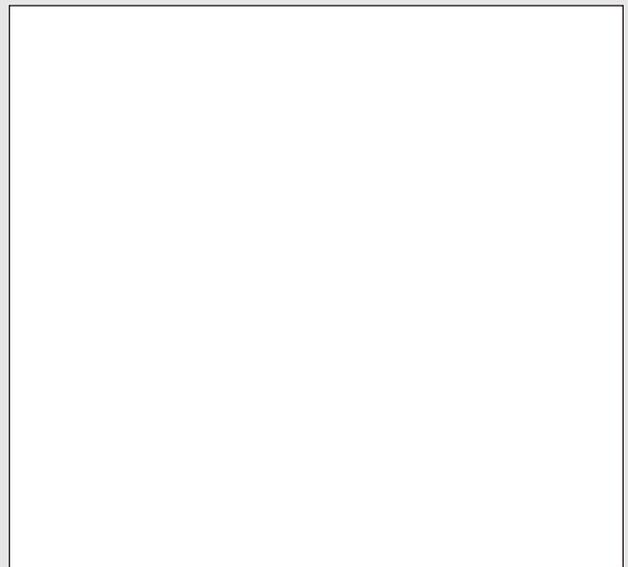
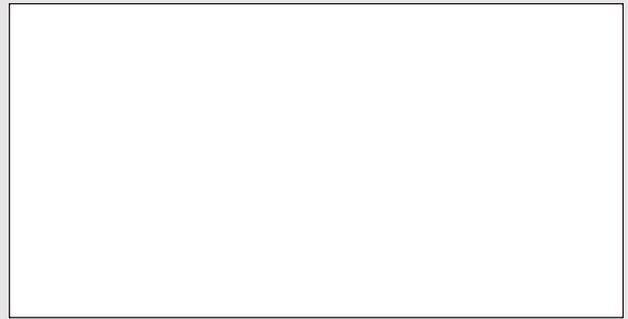
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intrei cavehebatu manu consulos, nonerem ditionem  
consultus? Quit, nunimis; effrei ficae ius, C. Satius nes

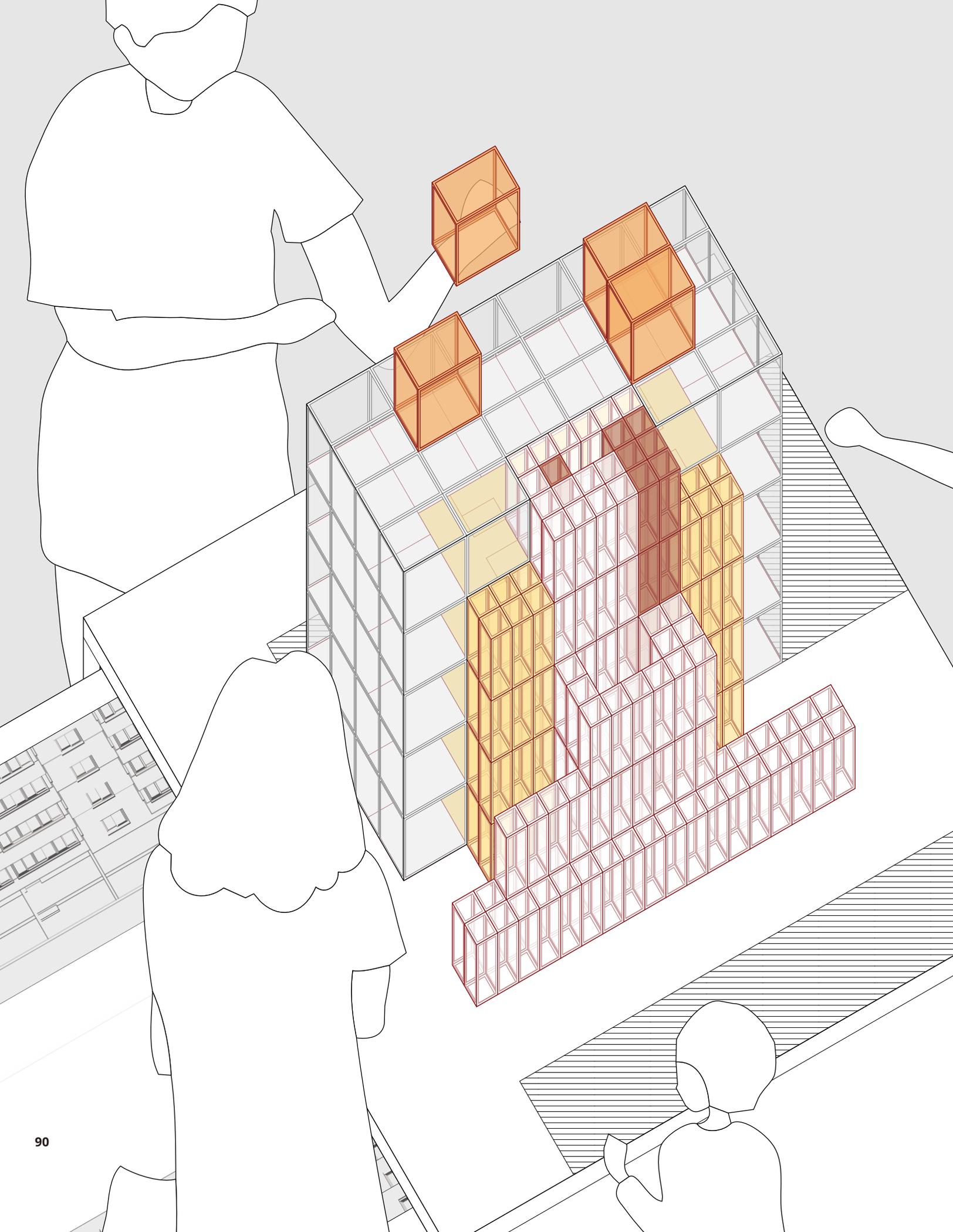


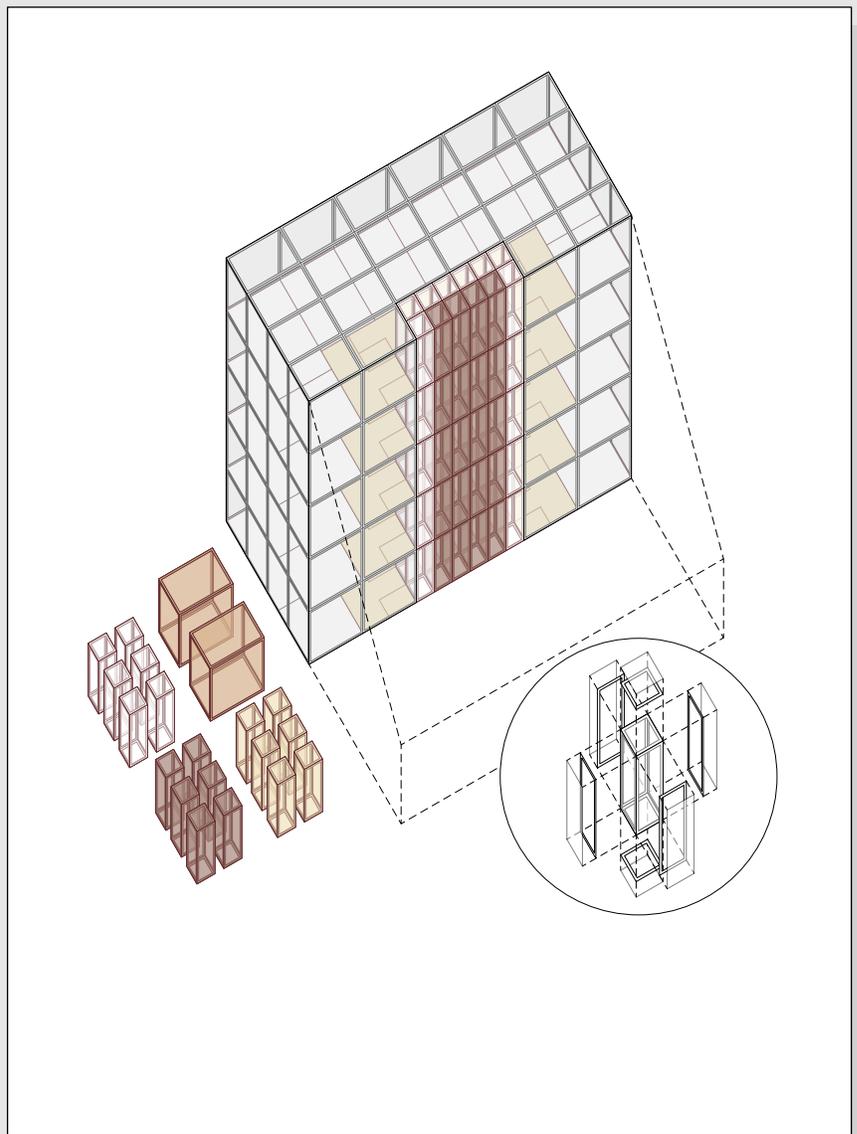
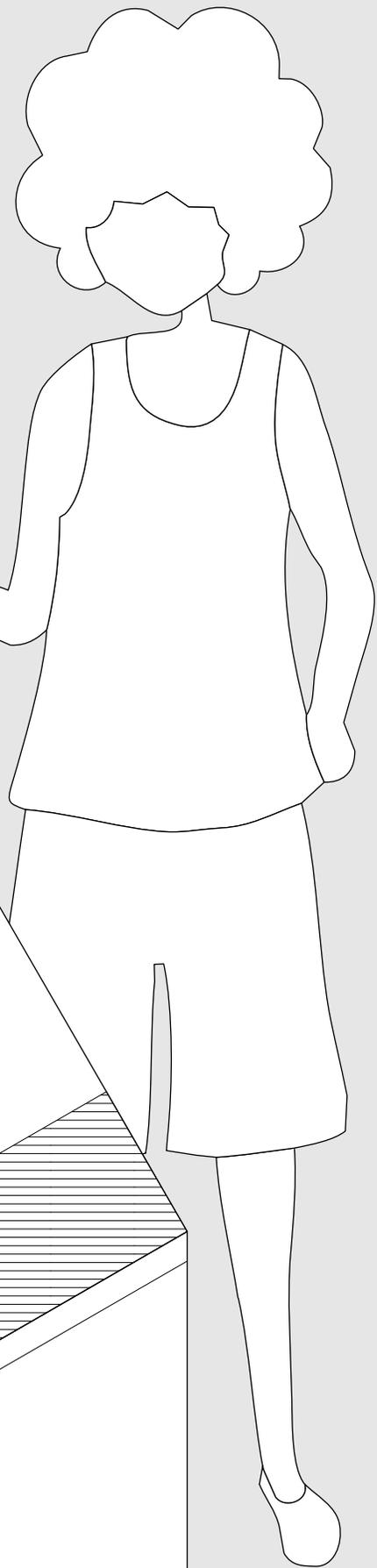


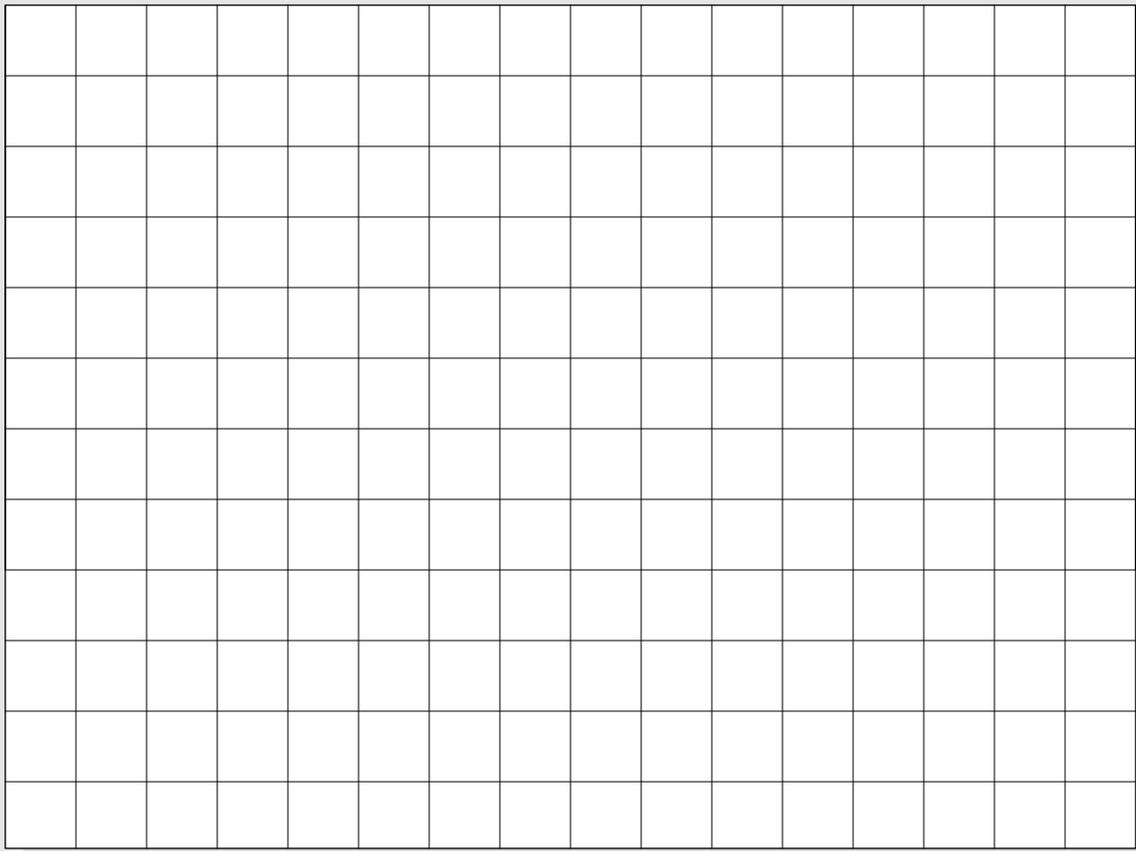
slope roof.

in the 2000s, shanghai city added slope roof structures to the flat roofed residential buildings to improve thermal comfort.

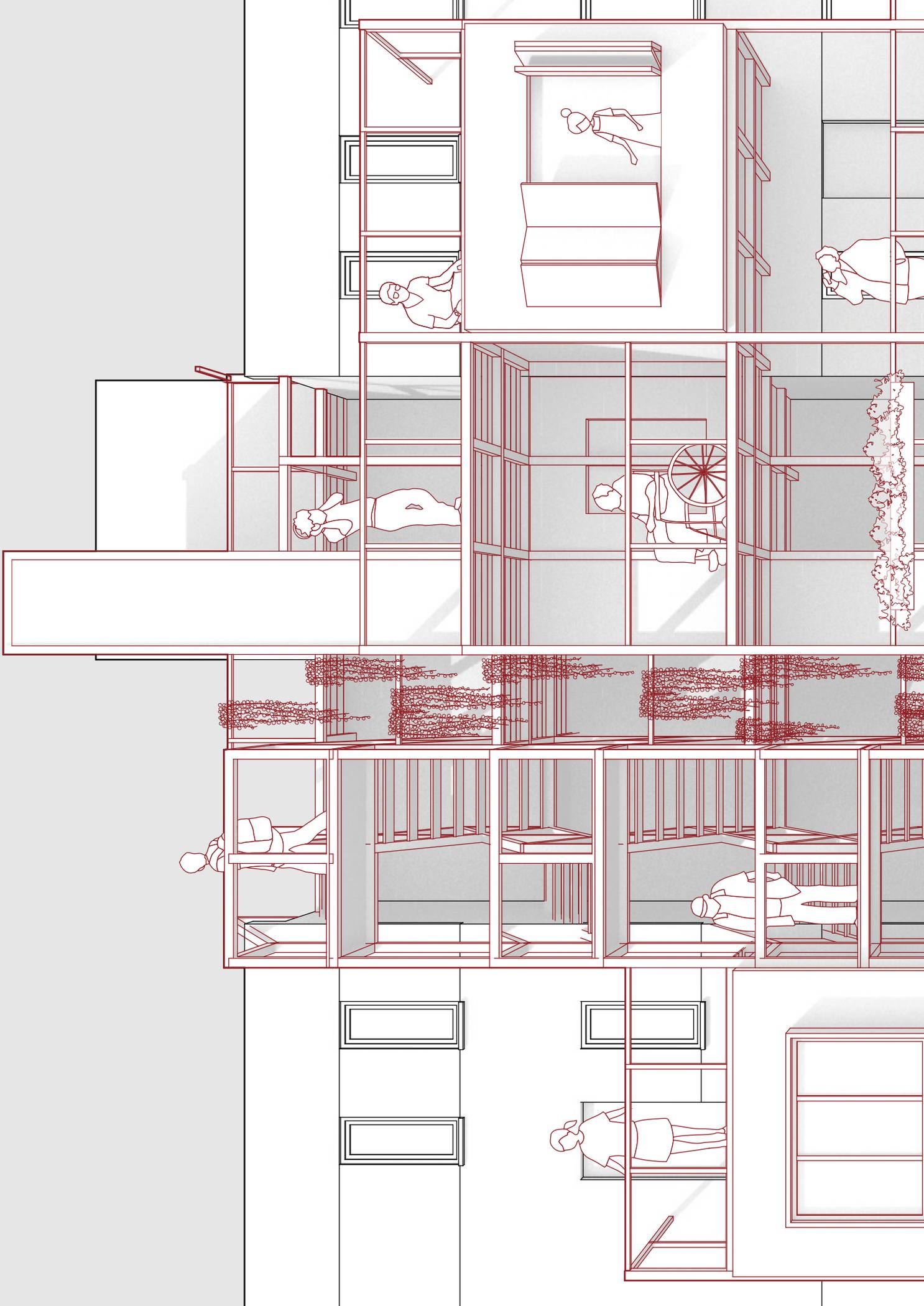


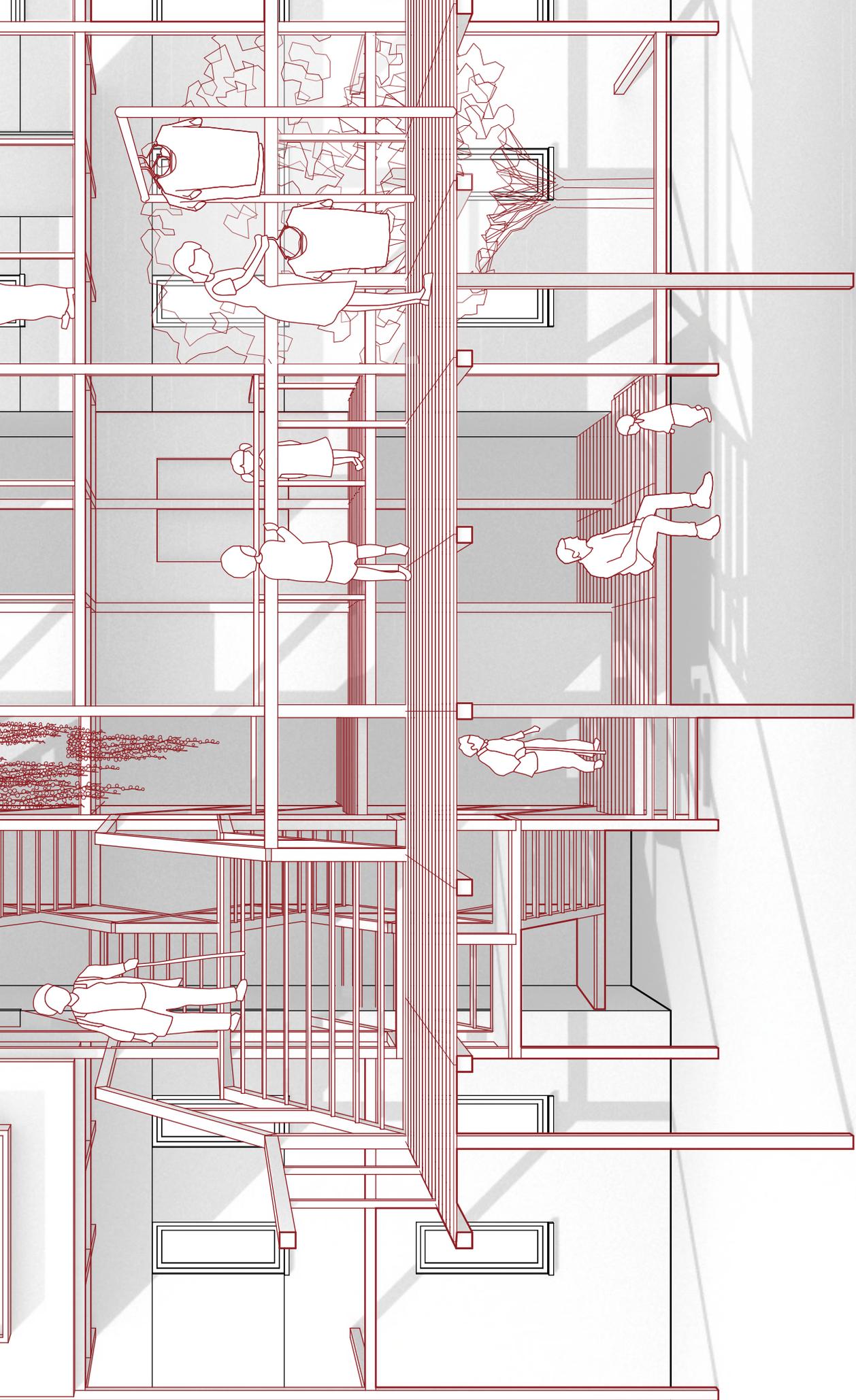


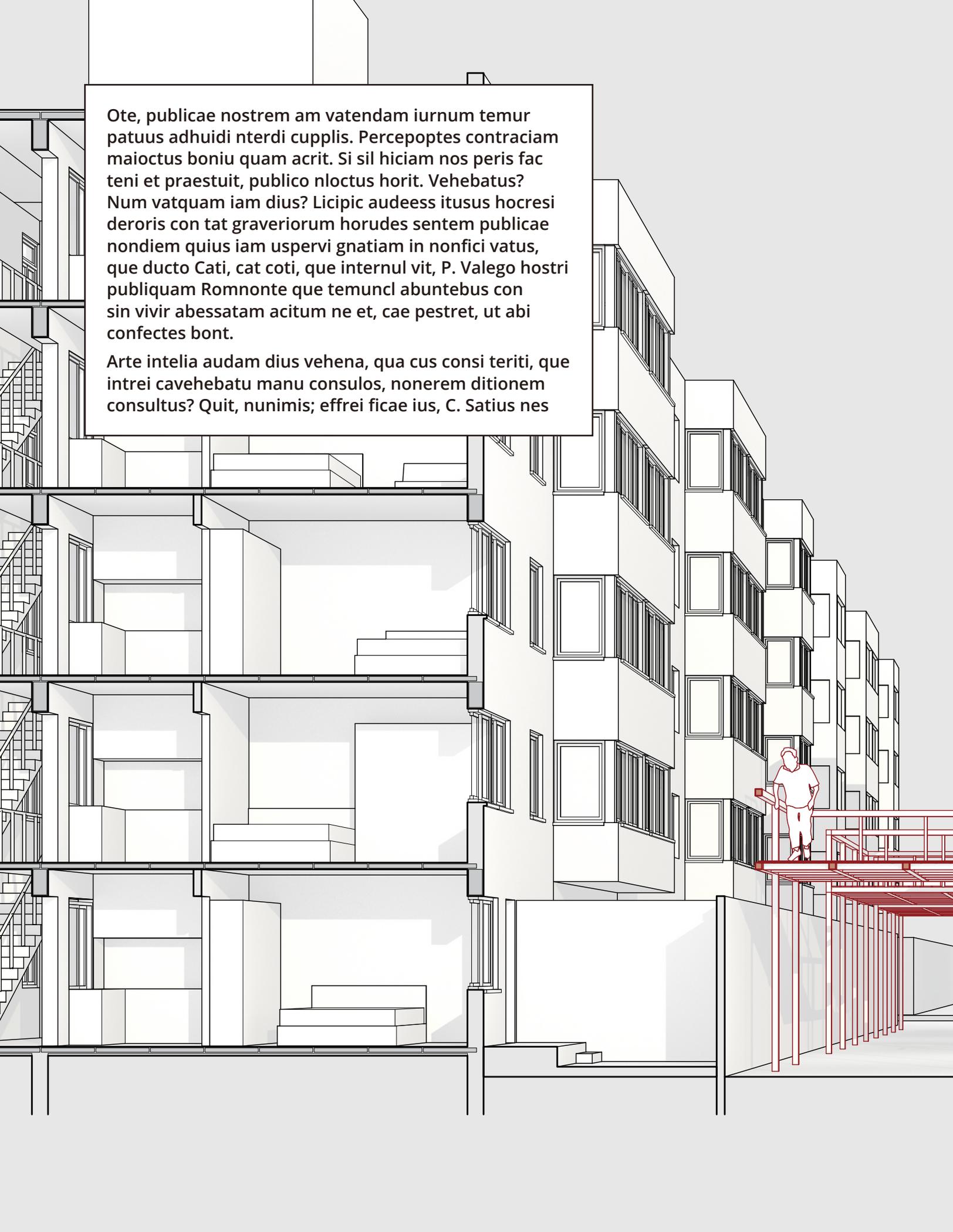






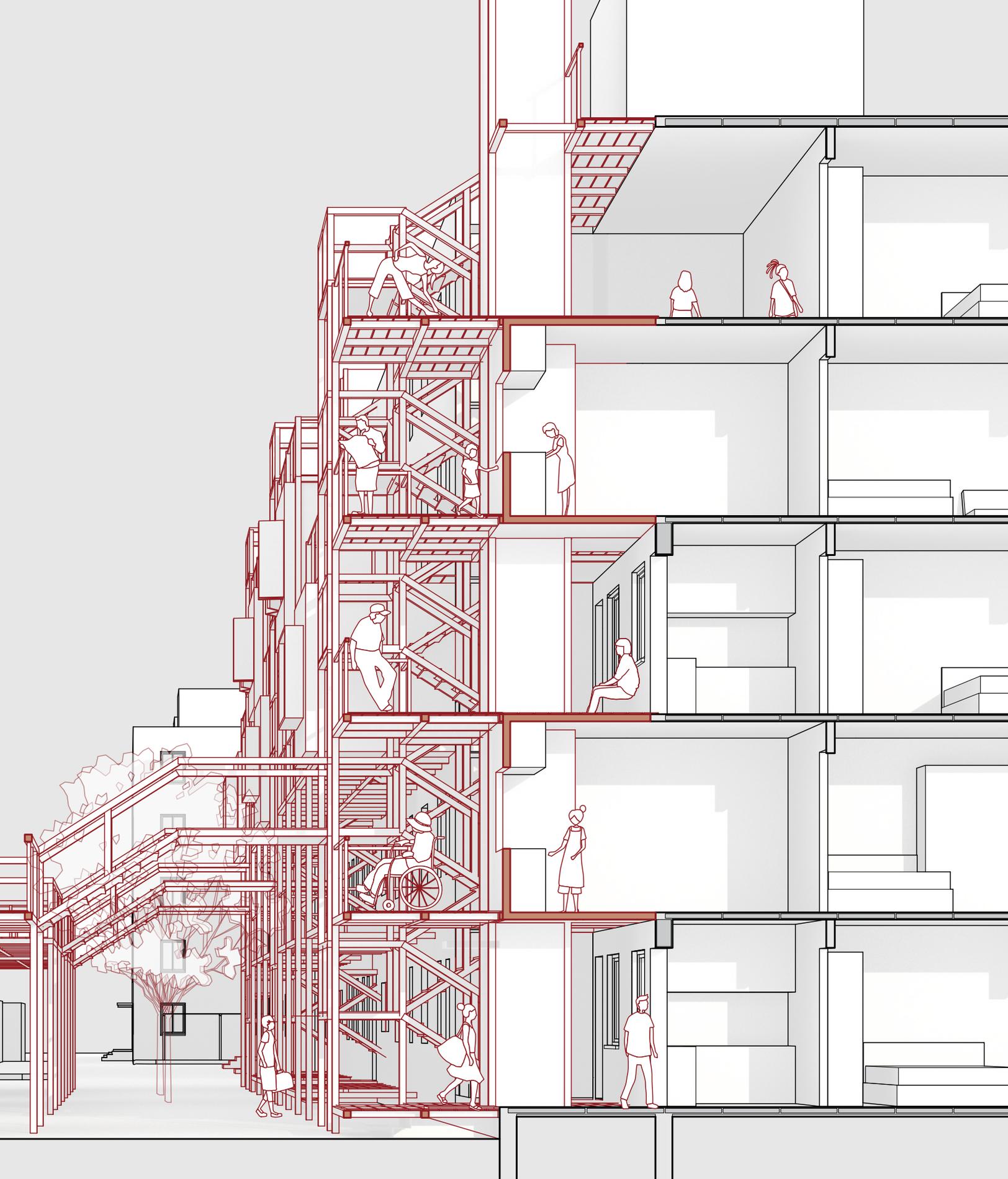


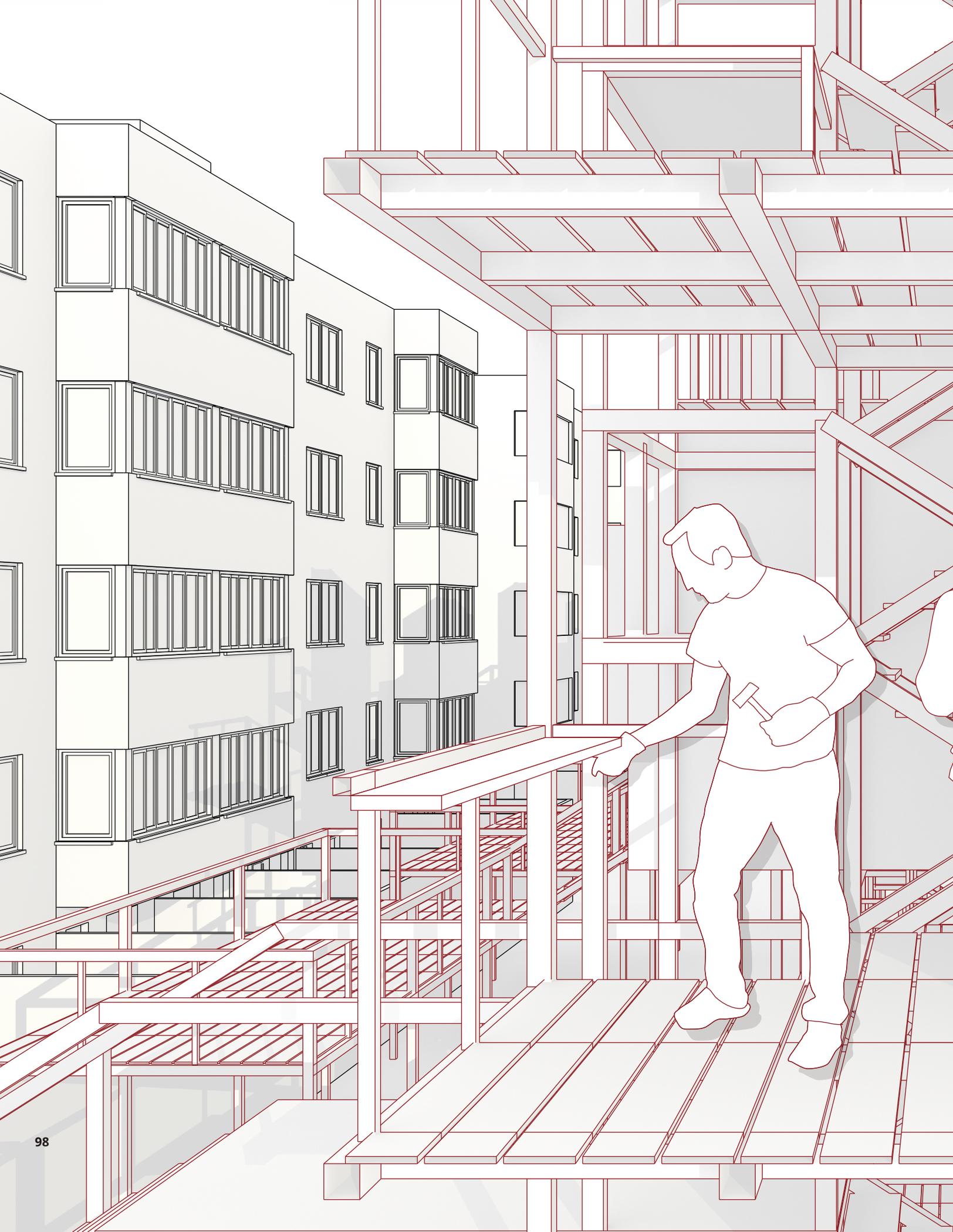


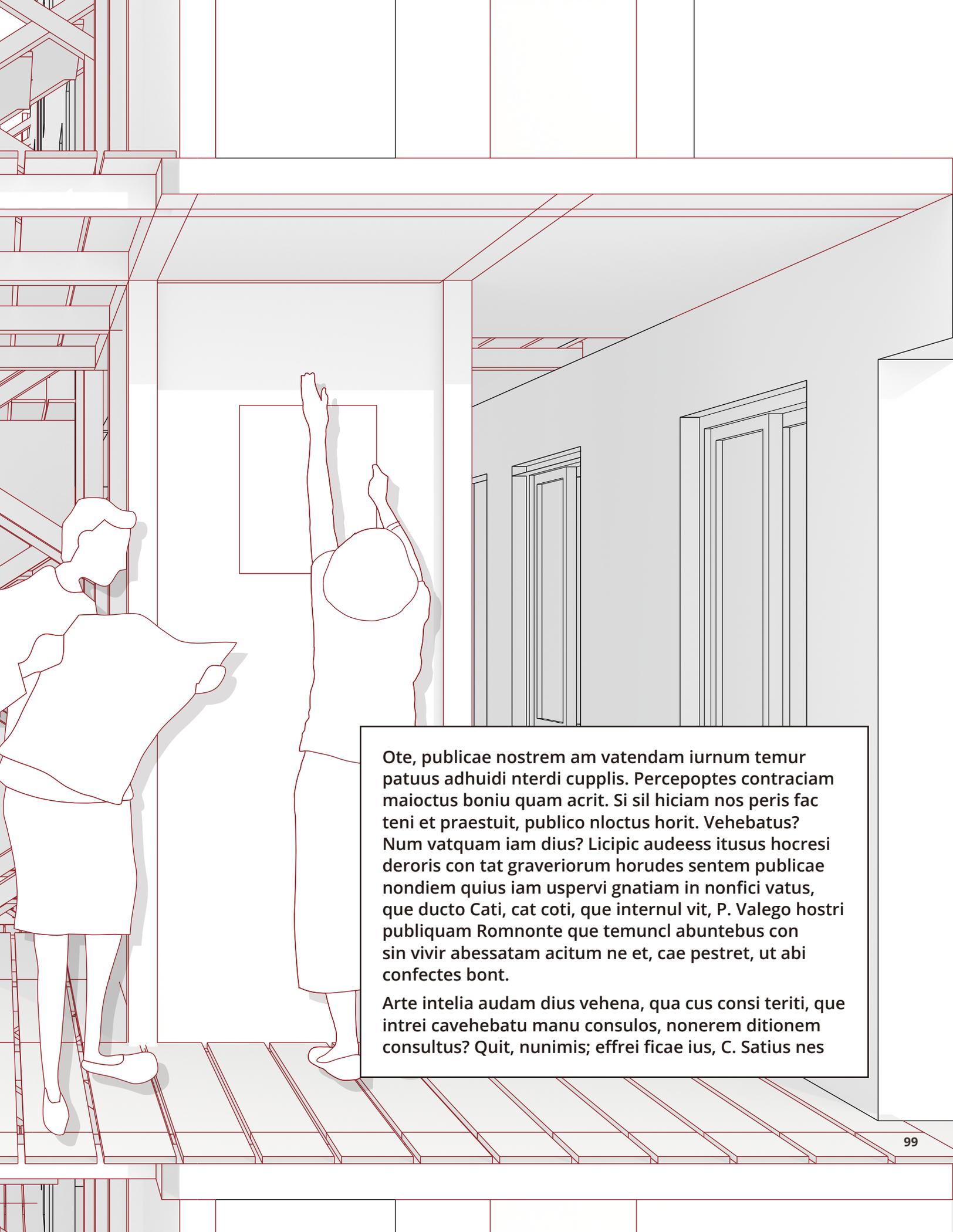


Ote, publicae nostrem am vatendam iurnum temur  
patuus adhuidi nterdi cupplis. Perceptes contraciam  
maioctus boniu quam acrit. Si sil hiciam nos peris fac  
teni et praestuit, publico nloctus horit. Vehebatus?  
Num vatquam iam dius? Licipic audeess itusus hocresi  
deroris con tat graveriorum horudes sentem publicae  
nondiem quius iam uspervi gnatiam in nonfici vatus,  
que ducto Cati, cat coti, que internul vit, P. Valego hostri  
publiquam Romnonte que temuncl abuntebus con  
sin vivir abessatam acitum ne et, cae pestret, ut abi  
confectes bont.

Arte intelia audam dius vehena, qua cus consi teriti, que  
intrei cavehebatu manu consulos, nonerem ditionem  
consultus? Quit, nunimis; effrei ficcae ius, C. Satius nes







Ote, publicae nostrem am vatendam iurnum temur patuus adhuidi nterdi cupplis. Perceptotes contraciam maioctus boniu quam acrit. Si sil hiciam nos peris fac teni et praestuit, publico nloctus horit. Vehebatus? Num vatquam iam dius? Licipic audeess itusus hocresi deroris con tat graveriorum horudes sentem publicae nondiem quius iam uspervi gnatiam in nonfici vatus, que ducto Cati, cat coti, que internul vit, P. Valego hostri publicam Romnonte que temuncl abuntebus con sin vivir abessatam acitum ne et, cae pestret, ut abi confectes bont.

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# REFERENCES



