

Graduation Report

Clipping Kampung

Nurturing resilience in Hoptille through lessons from Kampung

*New Heritage Studio -
AR3AH105 Graduation Studio Adapting 20th Century Heritage*

Nurhadi Nugraha - 5118042

**Tutors : Nicholas Clarke
Ger Warries
Lidwine Spoormans**



Clipping Kampung

Nurturing resilience in Hoptille through lessons from Kampung

Author : Nurhadi Nugraha
Student Number : 5118042

Tutors : Nicholas Clarke (Heritage & Design)
Ger Warries (Building Technology)
Lidwine Spoormans (Research)

Education Institution : Delft University of Technology
Faculty of Architecture, Urbanism, and Building Sciences
MSc Architecture, Urbanism, and Building Sciences

Project Site : Hoptille, Amsterdam, The Netherlands
Graduation Studio : New Heritage Studio-
AR3AH105 Graduation Studio Adapting 20th Century Heritage

Delft, The Netherlands, June 2021

Executive Summary

The graduation project is located in Hoptille, H-Buurt, Amsterdam Zuid-Oost. It is part of New Heritage graduation studio that aims to find heritage values in the relatively new built neighbourhood based on the perspective of different stakeholders. It takes the notion of adaptive reuse to maximize the current housing stock to face the housing demand in the Netherlands. Hoptille itself comprises an elongated mid-rise building and low-rise family house complex next to Bijlmermeer. Hoptille was built in the 1970s as part of a housing solution to the housing demand in that era. Along with Bijlmermeer and H-Buurt, the neighbourhood is known for its socio-problem and bad reputation in the past such as criminality, vandalism, and drug dealing. Some renovation and intervention to create new images have been done several times to create a more pleasant environment.

Clipping Kampung aims to improve the resilience of Hoptille neighbourhood in Amsterdam based on lessons learned from Indonesian Kampung. At least, two main qualities from Kampung that are useful for Hoptille's resilience problem have been identified: adaptability and transformability. The Kampung has a quality to be more adaptable due to its residents' bond that encourages them to help and take care of each other and their environment. Moreover, it also has a transformability quality, in which the

neighbourhood's function shifts, enriches and organically grows over time. This project believes that time is the dimension that allows people to add layers of growth to their environment.

Understanding the Kampung qualities can help create intervention and framework to tackle Hoptille's socio-spatial issues, hence improving its resilience. Based on the qualities mentioned above, Clipping Kampung is designed as an intervention that offers flexibility and option towards future needs by accommodating the change of functions or size in the Hoptille neighbourhood more flexibly while also promoting higher adaptability.

Nurhadi Nugraha
Delft, 23 June 2021

Contents

1. New Heritage Studio Research

New Heritage : Graduation Studio Background
Research : Approach & Methodology
Research Methodology
H-Buurt Research

2. Personal Research

Hoptille
Indonesia's Kampung
Resilience

3. Approach & Intervention

Strategic Framework
Urban & Building Analysis
Intervention

4. Conclusion

The Relevance
Reflection

Bibliography
Acknowledgment

Clipping Kampung

Nurturing resilience in Hoptille through lessons from Kampung



Source of Photos used in the collage :**Hutama, I.A.W. (2016)**, "Exploring the sense of place of an urban kampung. Through the daily activities, configuration of space and dweller's perception: case study of Kampung Code, Yogyakarta", ITC, University of Twente, Enschede, available at: www.itc.nl/library/papers_2016/msc/upm/hutama.pdf



1 New Heritage Studio Research

Stadsarchief Amsterdam (1986) Aerial view Bijlmer Center (<http://archief.amsterdam/archief/10009.B>)

New Heritage

Graduation Studio Background

The Post War Settlement

The vast world population growth and city expansion resulting in the need for housing in the future is inevitable. The notion of globalization and immigration also takes part in the urge to build new housing and expand the city. Similarly in the Netherlands, there is a need to build housing approximately one million homes before 2050 (Oorschot, 2020). The urge to meet the demands of housing resulting in densification in the cities or opening new towns. This urge has been taken into action with opening new cities since the post-war. Almere and Bijlmer (Amsterdam Zuid-Oost) are among them. Almere Haven was built on reclaimed land in Flevoland in the 1970s to create a new city close to the city of Amsterdam.

The same notion was taken place in Southeast of Amsterdam as Bijlmermeer (Bijlmer) opened up a new settlement starting in the 1960s. (Bijlmermuseum, n.d). Just outside Amsterdam, these new settlements seem ideal to support the growth of Amsterdam. In general, 31% of the residential buildings in the Nether-

lands are from the period 1965-1985 (Clarke and Spoormans, 2020). The current and future challenge to provide adequate housings also culminate the idea of revitalizing and densify the current housing stock to meet the demands. Thus, investigation of the values and potentials of these relatively new settlements to meet these challenges is required.



Stadsarchief Amsterdam (1981) Luchtfoto Bijlmer Centrum (<http://archief.amsterdam/archief/10009.B>)

The Research

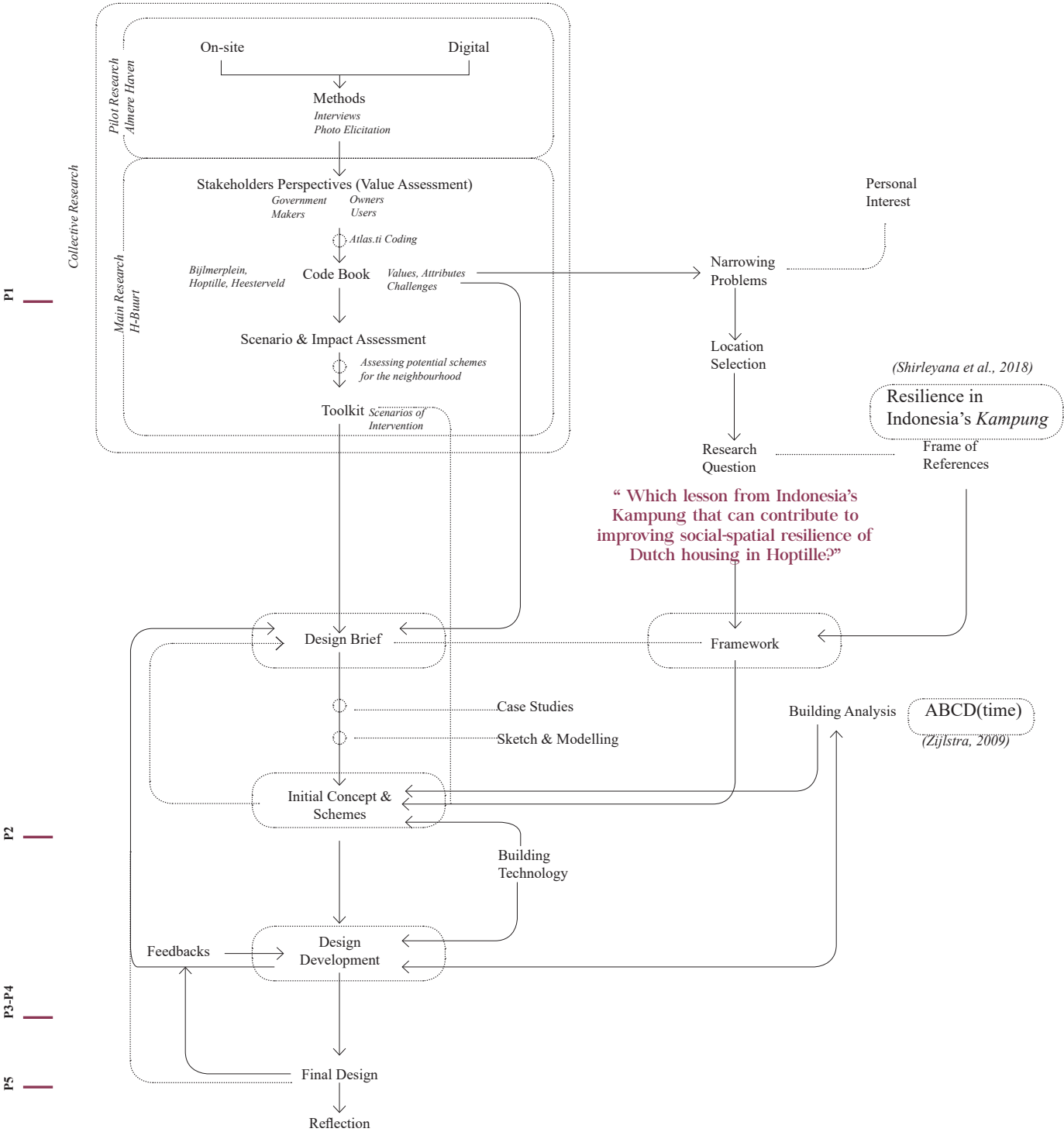
Approach and Methodology

New Heritage

Heritage and architecture try to investigate the values of the existing built environment to solve current problems and meet future challenges. Finding potentials, values of the relatively new built environment in H-Buurt and identifying its problems and challenges are the general aim of this research of heritage studio. In these relatively new neighbourhoods, values and challenges are derived from the appreciation of its residence and other related stakeholders. Collective research, individual research, and design development were conducted as the research process.

Research Structure

The research consists of collective and individual research. The collective part is to determine the value and attributes of the H-Buurt and then derive it into code book before deliver the scenario toolkit as a based for individual research.



Research Structure

Research Methodology

1. Collective Research :

Finding Values & Developing Scenarios

Almere was created as a new town on new land, the Flevopolder. Almere was developed in the 1960s and 70s to house the ‘overspill’ from Amsterdam. Almere had fewer than 150.000 inhabitants in the year 2000, but has grown to more than 200.000 today. The city is now planning to build 60.000 more homes before 2030 to grow to a population of 350.000 inhabitants. This poly-nuclear city struggles with the choice to either further expand the suburban area, or to densify its existing neighbourhoods. The location for the reference case is Almere Haven (or simply Haven), the first ‘nucleus’ of Almere, that was built in the late 1960s and 70s with a centre inspired by traditional Dutch towns.

Finding The Values

The first part of collective research is to find and analyse the values and attributes in the neighbourhoods into codebook which contain values, attributes, and challenges of the three neighbourhood in H-Buurt; Bijlmerplein, Hoptille, and Heesterveld

The Pilot Research: Almere Haven

The pilot research in Almere Haven is used as an experiment to test and adapt the research methods that will be used in the main research of H-buurt. The goal is to extract the attributes and values from the opinions of the residents. Two approaches were conducted by having media research and on-site interview to explore residents' experiences, memories, opinions, and perceptions, as well as opinions on social media (Facebook, Instagram, and Flickr). This combination resulted in a quantitative study with a qualitative map as well. The on-site group decided on a top-four of the tested methods and a list of recommendations. Each method has its reflection. This reflection was not just focused on the execution of the method but also the documentation and the first analysis of the data.

This led to a preference of methods that were used for the H-Buurt research. This order was based on discussions in the group about outcomes, reflecting and comparability of these methods. The preferred order of methods is: D) questionnaire, C) showing pictures, B) making drawings and A) open conversations.



MEDIA RESEARCH				
RESEARCH METHOD	RAW DATA	INPUT DATA	OUTPUT DATA	CONCLUSIONS
FACEBOOK INSTAGRAM FLICKR BOOKS SOURCE ATTRIBUTE VALUE				Image-based analysis <ul style="list-style-type: none">easy to read and understandgood for FIRST interpretation Text-based analysis (Sankey) <ul style="list-style-type: none">look into grouping and correlationgood for DEEPER dissection
ON SITE RESEARCH				
RESEARCH METHOD	EXPLANATION	DATA GATHERED	DATA PROCESS	REFLECTION OF METHOD
OPEN CONVERSATION Gain a variety of information about the interviewees and their experiences. Without leading them into specific directions.	Asking the respondent open questions such as what they like and dislike about Almere-Haven.			Positives of method A <ul style="list-style-type: none">Allows for gaining a lot of information.A clear, in-depth conversation can be held, showing an interest.Intangible attributes can be obtained. Downsides of method A <ul style="list-style-type: none">This method needs an interpretation by the student.Doesn't seem to work that well for children.
DRAWINGS Obtain information about personal, intuitive, and specific attributes/opinions.	What is the first thing you think of if you think about "Almere Haven"? And then let them draw it.			Positives of method B <ul style="list-style-type: none">Clear specific answers about positive and negative attributes.Already quite focused on the built environment.A visual overview of opinions and perspectives is created.There is a lot of information to be found in the drawings. Downsides of method B <ul style="list-style-type: none">People are not always willing to draw.It takes effort and time for someone to make the drawing and explain it.
PICTURES Get direct and specific information within a framework (images) without influence of personal interpretation.	Showing 10 images of the area, both old and new. With different approaches.			Positives of method C <ul style="list-style-type: none">Is a great direction to the conversationMakes it clear statement whether something is appreciated or not Downsides of method C <ul style="list-style-type: none">Phases interrupt the conversationLack of background information from the interviewee
QUESTIONNAIRE Obtain comparable information and opinions about specific subjects of the research(question).	A set of questions in order to determine what attributes people appreciate and how they value these attributes.			Positives of method D <ul style="list-style-type: none">Is directed to certain attributes and valuesThe outcome can be compared because of the structured questions Downsides of method D <ul style="list-style-type: none">Harder to get very specific about attributesPossibility that interviewees give shorter answersLimits the discussion to a portion of the images

Collected Data
from the Pilot Research

H-Buurt Research

The Main Research: H-Buurt

The main focus of the research is spread over three different areas in the H-Buurt; Bijlmerplein, Hoptille and Heesterveld. The aspect that these locations have in common is the predominantly 80's architecture housing that is built here. The question that we are asking ourselves in this graduation studio is the following: "Can we state that this is considered to be New Heritage?" and "How could renovation, replacement and/or densification strengthen the qualities and help solve current problems without compromising heritage values and identities, where these exist?".

"Can we state that this is Considered to be New Heritage?"



Stadsarchief Amsterdam (1986) Luchtfoto Bijlmer Centrum (<http://archief.amsterdam/archief/10009.B>)

Location

A M S T E R D A M

2.5 km

5 km

7.5 km

I J m e e r

Z u i d - O o s t

The new heritage studio investigating neighbourhood of H-Buurt in Amsterdam Zuid-oost in

Amsterdam ArenA

Amsterdam Bijlmer ArenA

Bijlmermeer

H-Buurt

The H-Buurt itself consist of three different neighbourhoods, Bijlmerplein, Hoptille, and Heesterveld that were built in the 70s-80s. These three neighbourhood are historically related to the Bijlmermeer.

Amsterdam Arena

Amsterdam Bijlmer Arena

Bijlmerplein

Nelson Mandela Park

Hoptille

Heesterveld

Bijlmermeer

The Main Research: H-Buurt

Collecting the Data

To start the H-buurt research, the group was divided into four smaller groups. The division was as followed: Insiders/Outsiders, Owners, Academics/Makers, and Government.

A collective strategy and method were developed to create comparable results across all groups. Within this, different methods can be used by the groups to achieve this focus. In general four groups used two main methods, questionnaire and photo elicitation (Harper, 2002), along with research on media, and literature. For photo elicitation, five photos were selected and shown to all interviewees along with a collective question.



Collective Research Through Interviews

Stakeholders	Description	Methods	Output
Government	The government group focused on the perspective of the government on the H-Buurt. This includes the municipality, the national service for cultural heritage, but also organizers on the neighbourhood scale.	<ul style="list-style-type: none">Desk Research (Demographic, Plans, and Policies)InterviewsPhoto Elicitation	<ul style="list-style-type: none">Overview attributes and valuesHistorical TimelinePhoto Matrix
Owners	The owner group focused on the real estate property within the five neighbourhoods of H-Buurt. There were 5 steps within the research phase, which built upon each other and could be combined in one in-depth research on the attributes and values out of the owner’s perspective.	<ul style="list-style-type: none">Desk Research (Maps and Historical Timeline, Literature)InterviewsPhoto Elicitation	<ul style="list-style-type: none">Overview attributes and valuesPhoto Matrix
Economy Risk	The users group focused on the perspective of the people who live or work in the H-buurt or visit the H-buurt for a different reason.	<ul style="list-style-type: none">InterviewsPhoto ElicitationSocial Media (Flickr, Instagram, Facebook)	<ul style="list-style-type: none">Overview attributes and valuesHeat map and word cloud.Photo Matrix

Table 1 . Methods and Output from Each Stakeholders

Makers

Academics

architect of Hoptille

architect of Heesterveld

architect of the Heesterveld Renewal

architect of Bijlmerplein

Online Interview

Narrative Walk

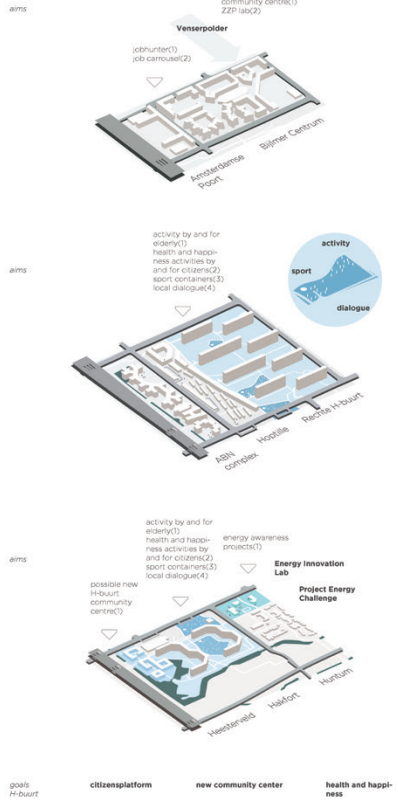
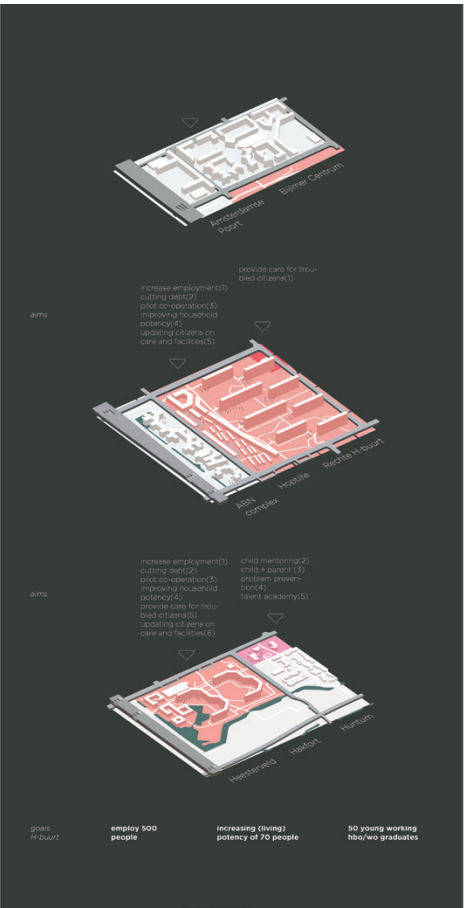
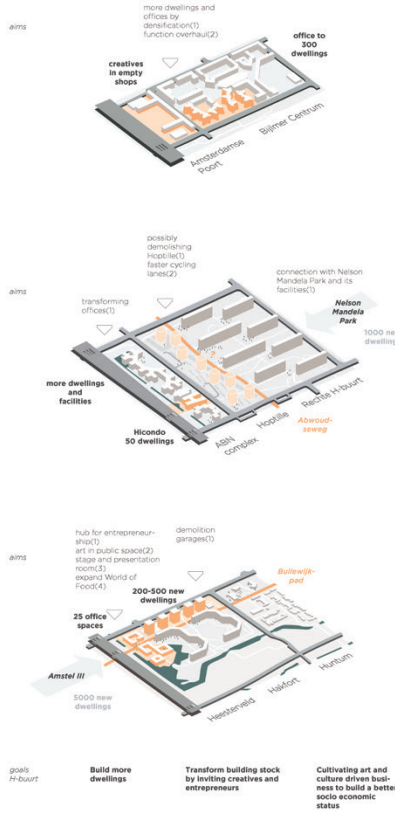
researcher of Bijlmermeer & Hoptille

architectural Historian

1Million Homes_TU Delft

Journalist & Residence of Bijlmermeer

Online Interview



Tag map-Heesterveld

street art

balcony

neighborhood party

Creative Community

color

order spatial

district alternative geometry transformation

colorful minimalist architecture

commercial publicspace storage room exhibition

walking tour light painting

urban photo

entire block and live platform restaurant

housing hot social parking

multicolor balcony architecture block facade city

social housing

OMA letje installation

live triphop

garbage sunny stencils

happy event

Hub75 Little Hawk door

meet the youngs

cafe art

colorful artist like

public art red

complex

urban art

artist talk

muralism

house

ecology

architecture photography

summer

calligraphy

neighborhood

Suspense studio

blue bright display

meeting

red flower pot

flat studio tour

RUAA

township

yellow portrait of Lisa

street art

underground plan

sketch model

night life

gangsters

visitors

random shot

performance

Yvonne

passageway

amsterdam's

streets

living exhibition

Architect the future

neighborhood party

building walk

grass feet

green

101 faces of Heesterveld city walk photobook

HEESTERVELD

Ecological

Social

Economical

Aesthetical

Historical

Political

Nature

Built environment, Material

Built environment, Building

Built environment, Urban

Built environment, Public space

Amenities

Infrastructure

Social, Tangible

Social, Intangible

Safety

Economy

Female, age 20-39, resident Heesterveld

"I am really happy with the greenery we have on this side. If you look out here, you immediately have water and you have all kinds of carp, all kinds of ducks, birds, and I am very happy that we live here next to the water."

Ecological - Environmental

Times mentioned: 4

Female, age 20-39, resident Heesterveld

"You have a kind of communal space in the artist block, so neighborhood parties are often organized there"

Communal spaces - Social

Social - Community

Times mentioned: 4

Female, age 20-39, outsider

"She likes the use of colour on the buildings, especially the creative community block."

Colour - Built environment

Aesthetical - Architectural

Times mentioned: 15

Female, age 40-59, Worker Hoptille

"And 'Oma letje' is there, fantastic place."

Café: Oma letje - Amenities

Social - Community

Times mentioned: 3

Male, age 60+, Resident Heesterveld

"There is a good metro connection with the rest of Amsterdam, which he likes to use. Within 15 to 20 minutes you are in the centre of Amsterdam."

Metro station - Infrastructure

Economical - Use

Times mentioned: 2

Matrix of Photo Elicitation

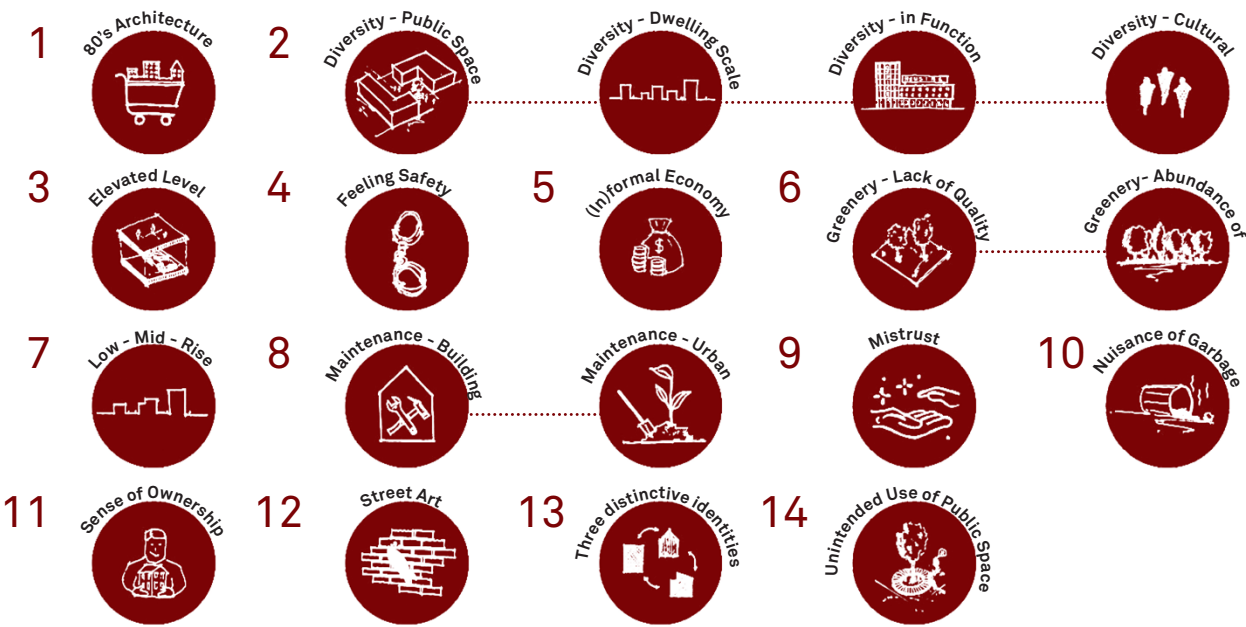
The matrix consists of five photos that were used in the collective photo elicitation from different stakeholder subgroups. This method translates the mentioned attributes to visual. Colour codes are used to highlight the certain attributes mentioned by interviewees in the photos. Red for high value, orange for medium value, and green for a low value. Each photo then will be examined through different values and attributes. The values are: Ecological, social, economic, aesthetical, historical, and political (Tarrafa, 2012). These are commonly used within the discipline of Heritage, architecture. The attributes are subdivided by the whole group into tangible and intangible attributes based on the article of Clarke et al.: site, surroundings, stuff, surface, amenities, scale, typology, space, story, social, services, vision, space, story, social, services, vision,

atmosphere and past/present/ future (Clarke et al., 2019). The highlighted colour in the photo later can be recognized and compare one to another. The other advantage of using this method is that it can be proceeded into supporting quantitative analysis to highlight the frequency of certain values or attributes mentioned by the different stakeholders.

The example of this matrix is shown below:

	ECOLOGICAL	SOCIAL	ECONOMIC	AESTHETICAL	HISTORICAL	POLITICAL	OTHER VALUES	
SITE								Hoptille Inner street does not have a good reputation
SURROUNDINGS								
STUFF								
SURFACE								aesthetical-surfaces BORING ARCHITECTURE POORLY MAINTAINED BUILDING
AMENITIES								
SCALE								
TYPOLGY								polical-typology DIVERSE TYPOLOGY EARLY FIRED BY POLICE
SPACE								
STORY								
SOCIAL								
SERVICES								
VISION								
ATMOSPHERE								
PAST PRESENT FUTURE								

Matrix of Photo Elicitation



Derived Themes

Derived Themes

The themes of specific aspects, values, and problems are derived from the conclusion of each stakeholder into fourteen themes that represent H-buurt. These themes aim to investigate and compare different perspectives or appreciation of each theme on different stakeholders. Each stakeholder group can put a summary from their findings in these themes and highlight the values. These themes also help to keep the focus on the research question.

From this investigation process, many problems and challenges were discovered for example the unsafety feeling, lack of quality public space, cultural diversity and soon. From this, I tried to narrowing my scope to these few points. And select Hoptille as my graduation project.



Personal Research

Hoptille

Kampung

Resilience

Stadsarchief Amsterdam (1991) *Hoptille*
(<http://archief.amsterdam/archief/10122>)

Personal Research

Hoptille as Personal Research Design

From the collective research, the further personal research and focus design on Hoptille. Hoptille was chosen because of the socio-problem that still occurred and its potential heritage value.

Heritage Hoptille?

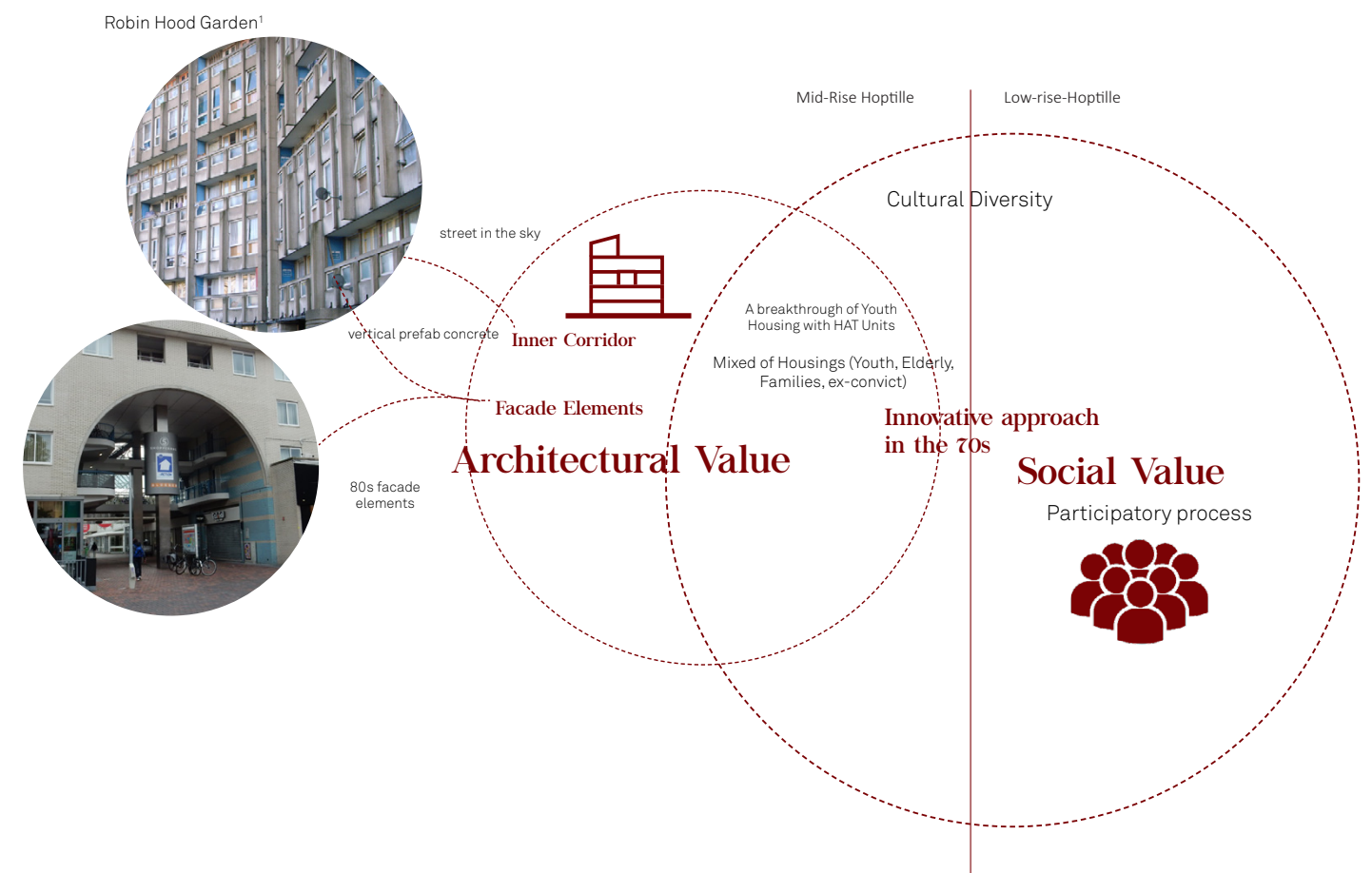
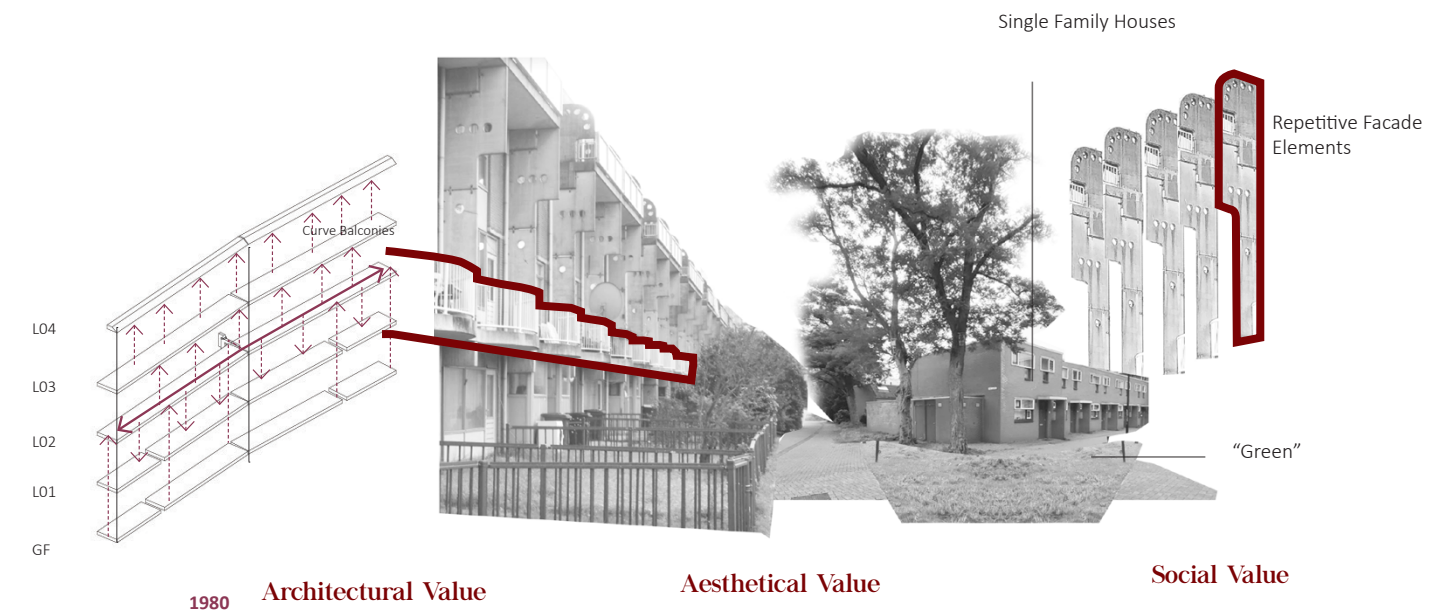
Hoptille as Personal Research Design

First, the potential Heritage of Hoptille need to be recognized. Through the collective research and deeper literature research, the potential Heritage value of Hoptille can be summarized into its Architectural value, Aesthetical Value, and Social Value.

The mid-rise has potential to become heritage with its architectural value of its inner corridor. The inner-corridor in Hoptille mid-rise was meant to enhance the social interaction among the residents. The similar approach as *"street in the sky"* by Smithson and Smithson in one of their project of Robin Hood Garden, London in 1970s which considered as heritage although it was later demolished in 2017. *"Sky in the street"* It takes notion that the people can meet and interact with its wider corridor in higher level.

Aesthetical value of the west facade with its verticality and 80s elements of arches, circle and curve that embedded in the prefabricated concrete vertical elements and curved balcony. This also potential to become one of locally significance post-modernism architecture in Amsterdam.

Moreover, the social value is embedded in both of the Hoptille mid-rise and low-rise due to the initial idea to make Hoptille community neighbourhood. The low-rise buildings also become one of the first participatory housing program in the Netherlands, and some innovative mixed target units such as first HAT unit for the young (Wassenberg, 1988).



1. Cadman, Steve (2008) Robin Hood Gardens
(<https://www.flickr.com/photos/stevecadman/2361178047/>)

PROBLEMS

PAST



The news coverage highlighted degradation, vandalism, lack of safety, crime, and the high rate of unemployment



Many tenants are problematic, resulting in a category of people who are not able to live independently by themselves. Many of them are on alcohol or drugs; rubbish, robberies and burglaries are regular, the long inside corridor, staircases, alcoves and dark corners are used for dumping rubbish, as public toilets, as meeting or sleeping places for junkies and tramps, or experienced as dangerous hiding places. (Wassenberg, 2013)



Some headlines read: 'anti-Bijlmer Hoptille is a disaster,' 'it is definitely not a nice place to live,' 'Hoptille as meeting place for problems' and 'estate completely dilapidated in two years.' (Wassenberg, 2013)



the fall

1. Bijlmer Aerial
(<https://99percentinvisible.org/app/uploads/2018/02/bijlmer-aerial.jpg>)

Source Photos 2,3,4 : Wassenberg, Frank (1988), Taken from HOPTILLE: EEN IDEALISTISCH WOONCONCEPT OP TILT

PRESENTS

Feeling Safety



H-Buurt has its negative images due to **social problems and criminalities that occurred in the past**. They included nuisance, vandalism, problematic people, drug dealing, robberies, and many more.

Nowadays people feel safer living in the H-buurt. However, some people do not feel so, especially at night. The unintended use of public space due to lack of surveillance is also a part of the problem

(In)formal Economy



On the other hand, the negative informal economy such as **drug dealing** also happened in some urban structures.

H-Buurt belongs to a **relatively low-income neighbourhood** averaging 18,500 euro with 20.5% of the household in the Bijlmer Centrum DFH District having an income at or around the social minimum (allecijfers, n.d.). The CBS put the low-income threshold at €12,750 last year for a single person and €2,000 more for a family. (DutchNews,2019)

Greenery - Lack of Quality



H-buurt **has low quality of public space and greeneries** except for the square in Bijlmerplein. The connection on the ground floor between the private and public domain was also mentioned in the interviews. Also, the unintended public space lacks social control. The greenery also seems monotonous and not has quality.

Diversity - Cultural



H-Buurt or Bijlmer is known for its **mixed ethnicity** background. Nowadays people from Suriname, Antilles, Turkey, Morocco, and others non-western live in great numbers in the neighbourhoods (allecijfers, n.d.). This mix of cultural diversity is something that people appreciated in this neighbourhood and is an aspect that **makes H-Buurt unique**. However, it becomes a challenge when different ethnic backgrounds live together as there is a risk for social segregation.

Risk to Social Segregation

Prone to the Gentrification

the rise



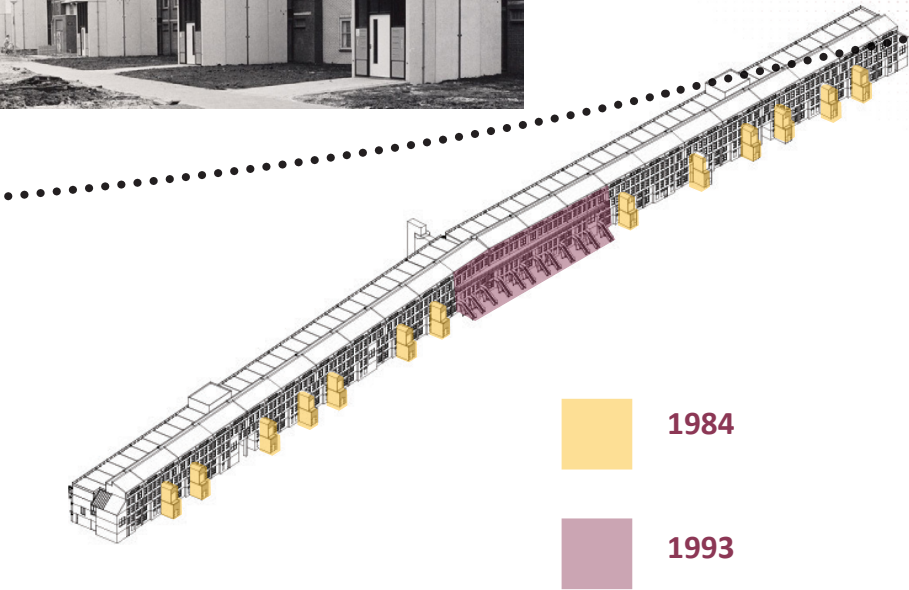
Stadsarchief Amsterdam (n.d.)
Hoptille. Verbetering van 220 wooneenheden tot 227 woningen en wooneenheden. Ontworpen door L.R.R (http://archief.amsterdam/archief/5293.FO_B)

1993



• Second Renovation

Adding access in the middle part of the building



1984

1993

CHALLENGES

FUTURE

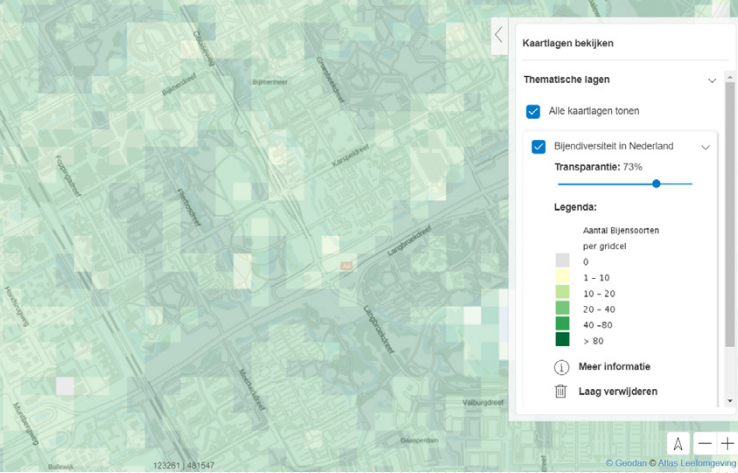
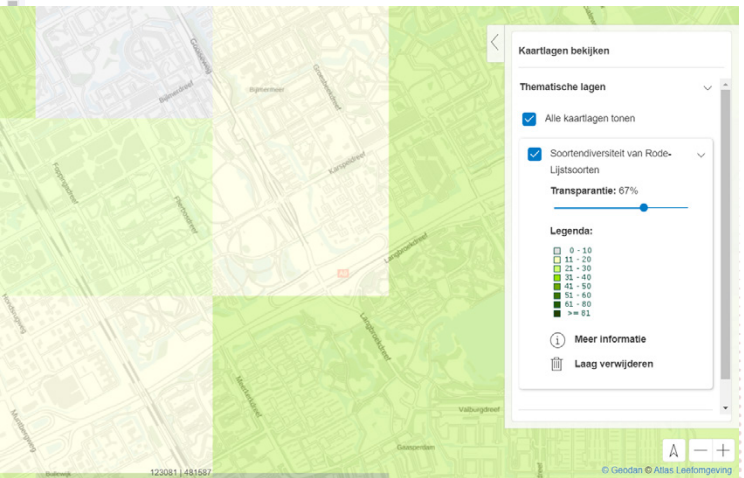
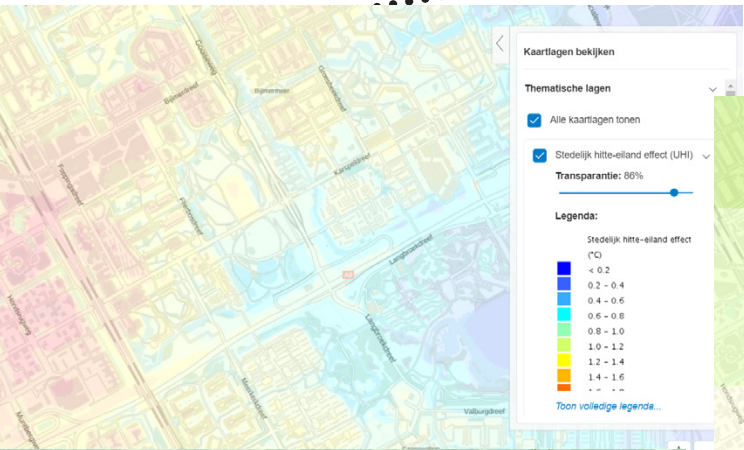
The Needs of Housing in the Netherlands

Biodiversity

Energy Requirement

Urban Heat Island Effect

Biodiverse



Bees Variety

- 1. <https://www.dutchnews.nl/news/2020/10/shortage-of-social-housing-is-increasing-and-rents-are-rising-fast-woonbond/>
- 2. <https://www.iamexpat.nl/housing/real-estate-news/845000-homes-need-be-built-netherlands-over-next-10-years>
- 3. <https://nltimes.nl/2020/06/16/housing-shortage-845000-homes-must-built-2030>
- 4. <https://www.atlasleefomgeving.nl/kaarten>

Hoptille Problems & Challenges

Hoptille is a neighbourhood with many socio problem and stigma in the past. Such as vandalism, drug dealing, criminality, high rate of unemployment, to bad quality of building. Part of it due to socio problem occur in the Bijlmermeer as well as other big factors of housing policy, criminality in general and soon (Wassenberg, 2013).

From the first phase, it is finally understood that Hoptille is still struggling with its inherent socio-problem from the past (Wassenberg, 2013) , which hinders its resilience. As a result, Hoptille is vulnerable to future challenges such as gentrification, social segregation, energy demand, low economy value, to the ecological threats. This finding leads to the research question: “How to improve resilience in the Hoptille neighbourhood?”

All these problems hinder the resilience in Hoptille

Why does Hoptille need to be resilient?

Past-Current Socio Problems

Dynamic of Demography

Economic Vulnerability

Ecological Vulnerability

The hoptille needs to have it own capacity to tackle these threats to maintain and improve its quality as a neighbourhood.

“

How to improve resilience in Hoptille
neighbourhood?

”

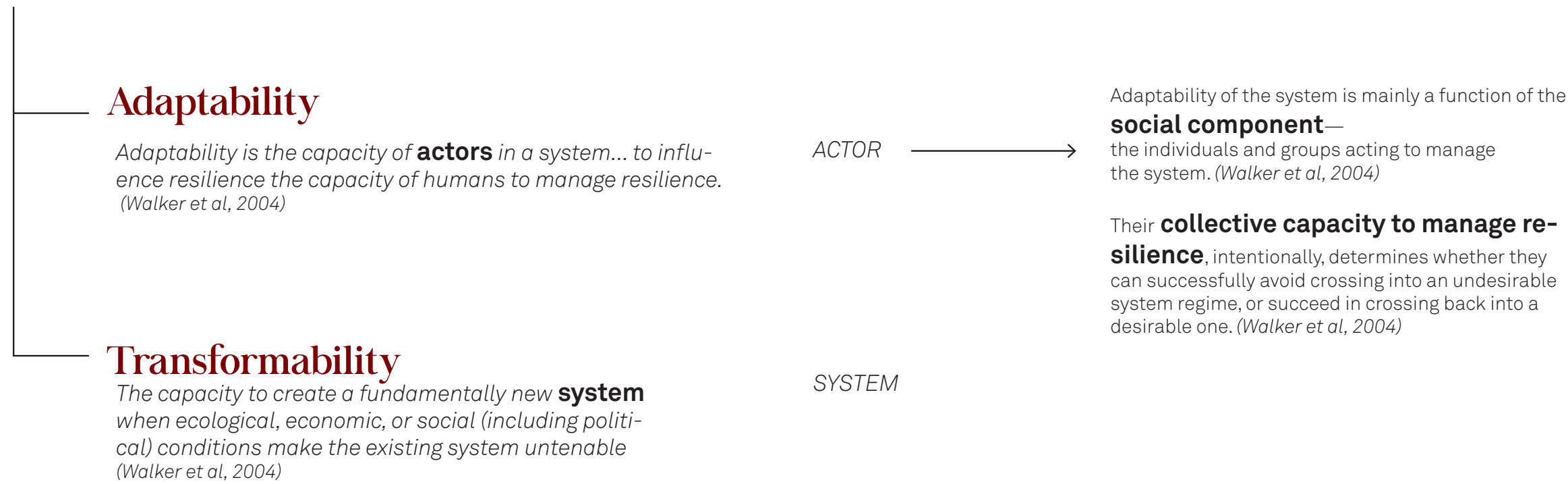
In order to recognizes the possible
approach, it needs to
identifies the resilience quality in
socio-ecological resilience.

Socio-Ecological Resilience

In order to recognizes the possible ap-
proach, it needs to
identifies the resilience quality in so-
cio-ecological resilience. Walker (2004)
suggested that socio-ecological resilience
has two qualities, adaptability and Trans-
formability.

RESILIENCE

Resilience is the capacity of a system to absorb
disturbance and reorganize while undergoing change
so as to still retain essentially the same function,
structure, identity, and feedback (Walker et al, 2004)





INDONESIA'S KAMPUNG

iNews id (2020) Penampakan Banjir Jakarta dari Pantauan Udara
(https://www.youtube.com/watch?v=biplQLw0QKY&ab_channel=iNewsid)

Indonesia’s Kampung and its Socio-resilience.

To find ways for improving Hoptille’s resilience, a research is conducted on some areas in another country with similar characteristics to Hoptille in terms of its problems and challenges. Indonesian Kampung was chosen as it also faces socio-problems such as safety, low-income economy, building quality, and public spaces quality and quantity, but is resilient.

Kampung is commonly referred to the urban sprawl in the city in Indonesia, and south-east asia. It characterize by its density, and social bond also the problems occurs.

Shirleyana (2018) found out that Indonesia’s Kampung is resilient due to the residents’ social bonds.

Therefore, how Kampung’s residents overcome their socio-problem needs to be identified to see if the same approach, strategies, or qualities from Kampung can be implemented in the design process of the Hoptille project to improve its resilience.



Table 2. Problems in Indonesia’s Kampung and Problems in Hoptille (Source : Adapted from Shirleyana et al. (2018))

Problems/Risk	Kampung	Hoptille
Physical Risk	<ul style="list-style-type: none">Lack of quality in public spaceDense neighbourhoodRisk of eviction	<ul style="list-style-type: none">Lack of quality public space and greeneriesHousing DemandsBad building quality
Social Risk	<ul style="list-style-type: none">Social Segregation due to cultural diversitySafety IssueLack of education	<ul style="list-style-type: none">Prone Social Segregation to cultural diversityFeeling safety
Economy Risk	<ul style="list-style-type: none">Economy vulnerability	<ul style="list-style-type: none">Relatively low income neighbourhood

From the collective research in H-Buurt (Q1)

Why Kampung?



1. Collage Photos shows Kampung Activities

From the research I tried to capture the possible social interaction in Kampung based on literature and personal experience through graphic narratives :

Despite from the risks in kampung, it has potential of resilience capacity because of the bond in the community

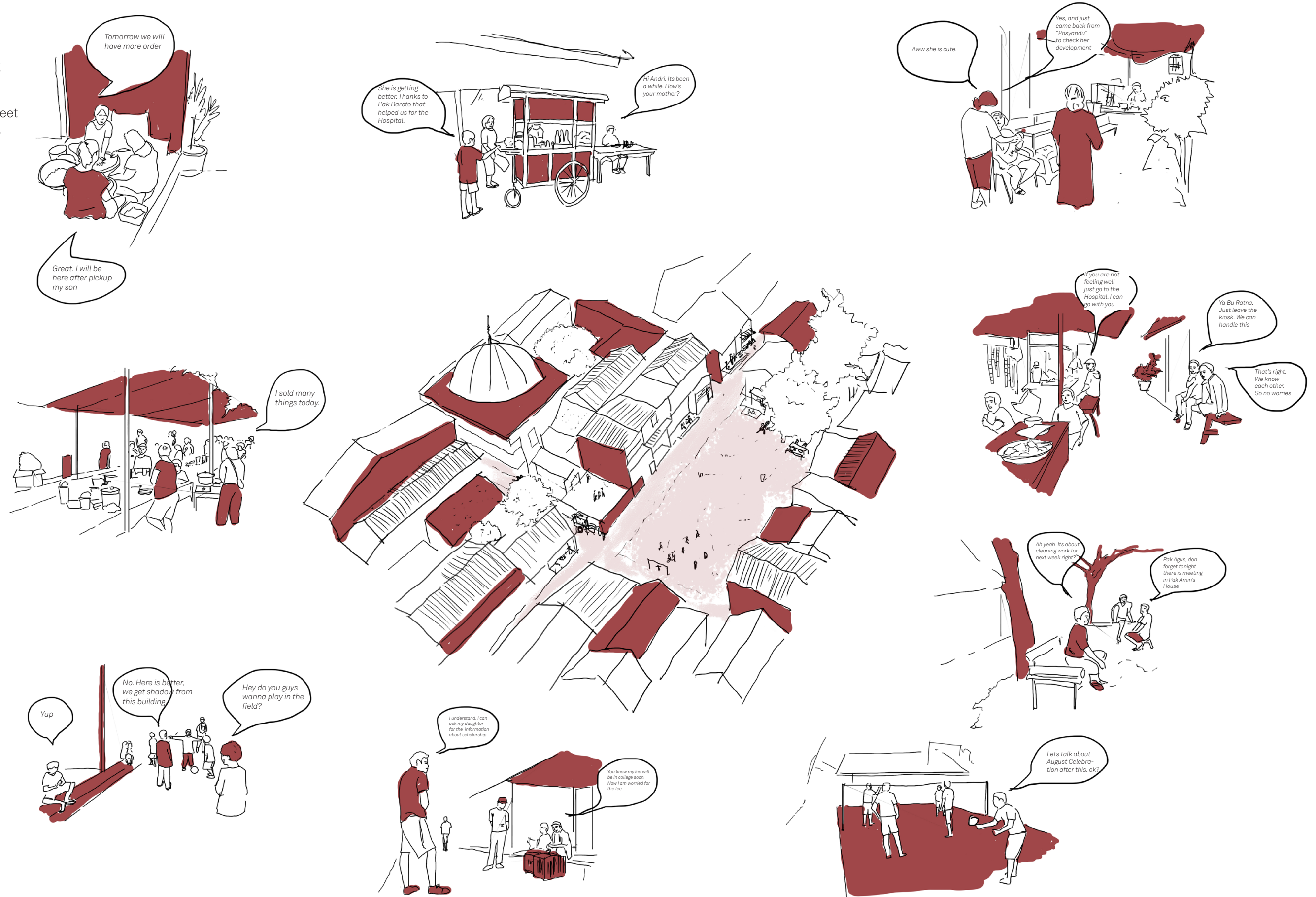
(Shirleyana 2018)

1. Source of Photos used in the collage :Hutama, I.A.W. (2016), “Exploring the sense of place of an urban kampung. Through the daily activities, configuration of space and dweller’s perception: case study of Kampung Code, Yogyakarta”, ITC, University of Twente, Enschede, available at: www.itc.nl/library/papers_2016/msc/upm/hutama.pdf

Kampung's Socio-spatial Characteristic

Spatial Characteristic

Depicting how the people in Kampung interacting through different places in Kampung. From street alleys to communal building.

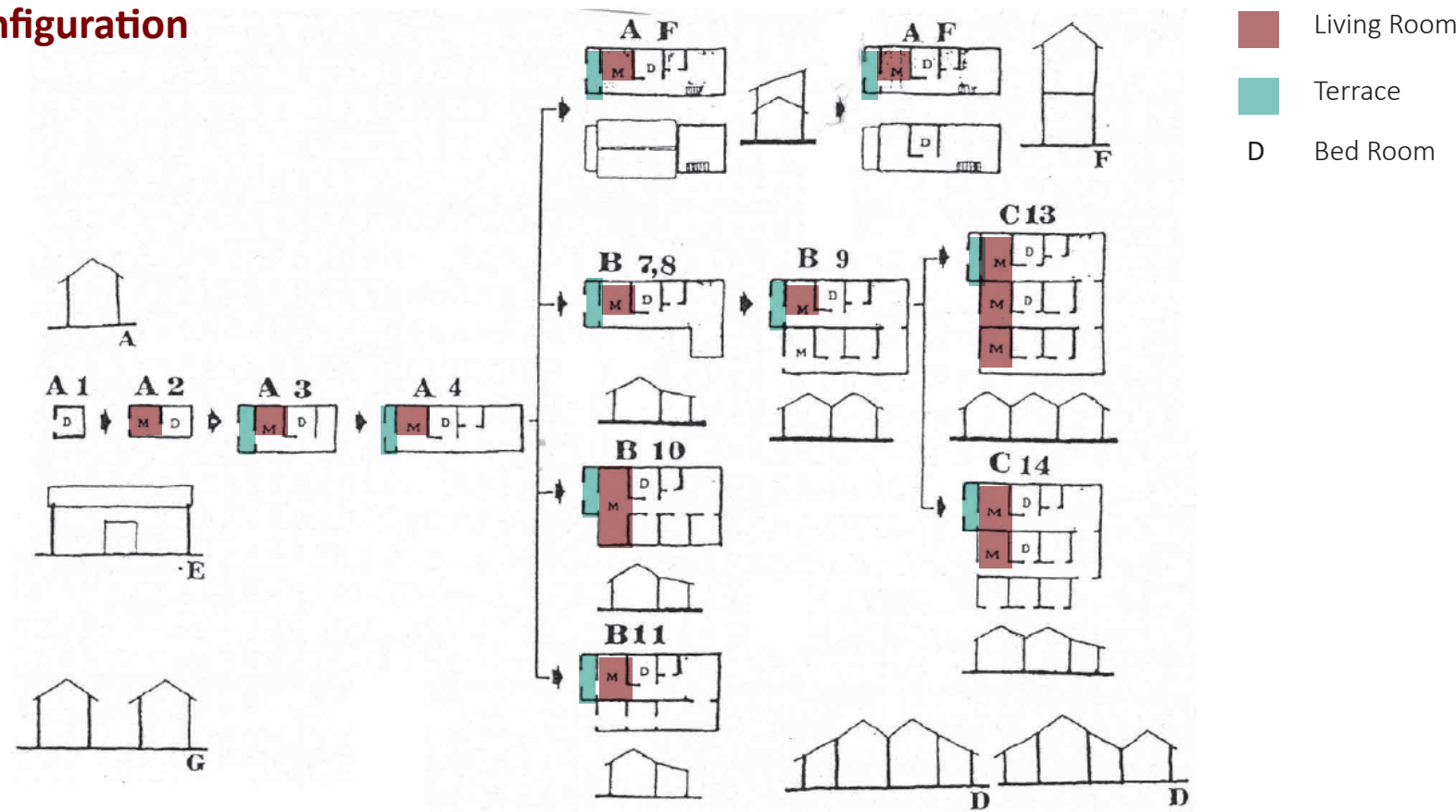


Kampung's Socio-spatial Characteristic

Spatial Characteristic

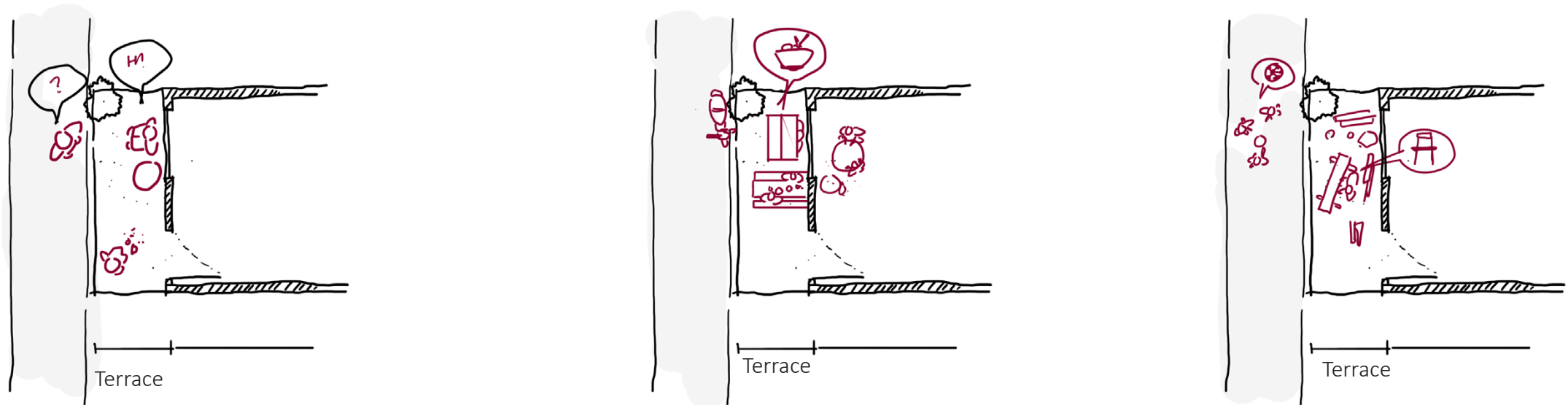
Typical Housing Configuration

Transformability of kampung through time (Funo et al, 2002) and the flexible space in the front of the house



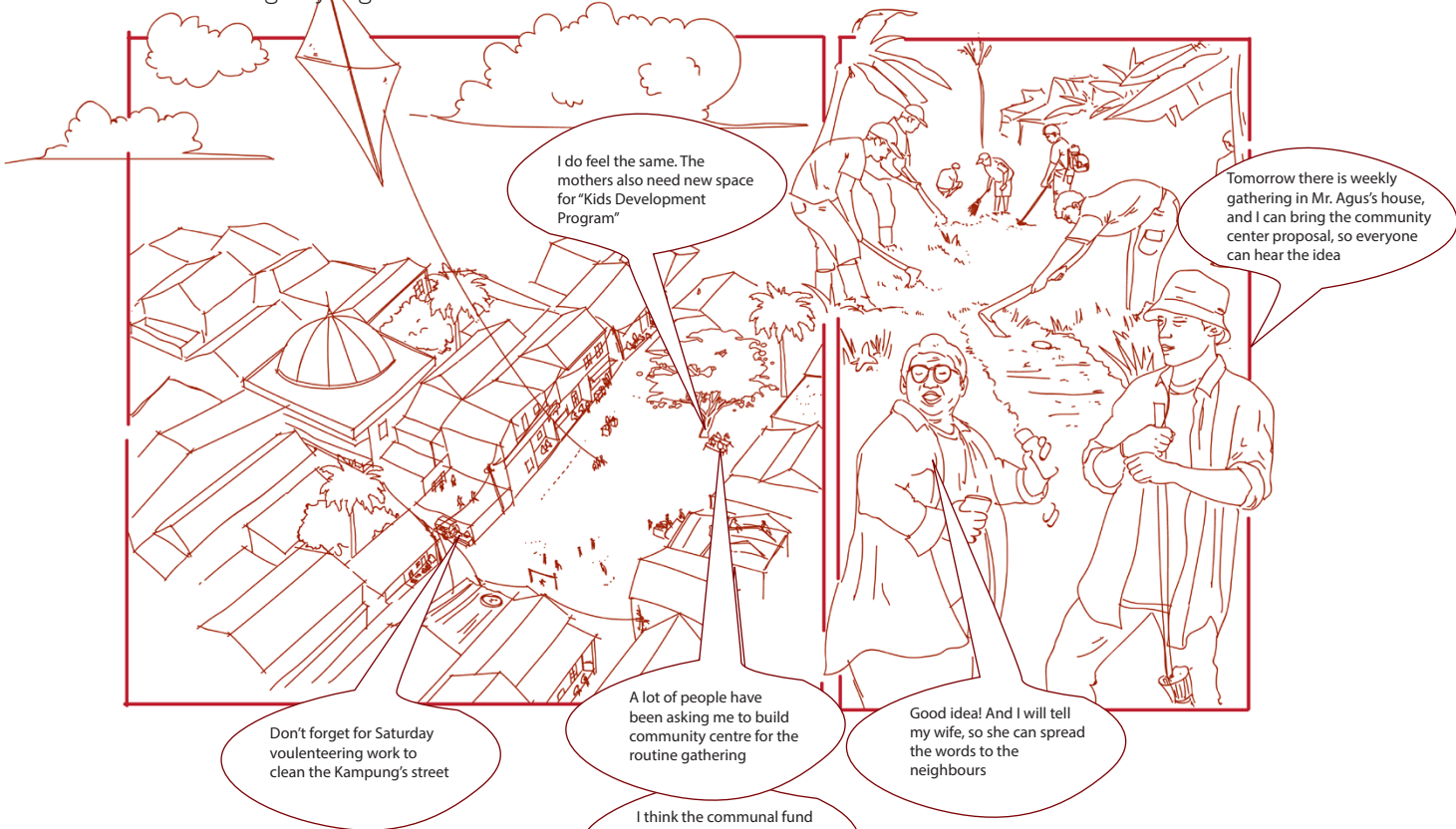
Funo et al (2002). The Transformation Process of Kampung House

The flexibility of Terrace of Public Space

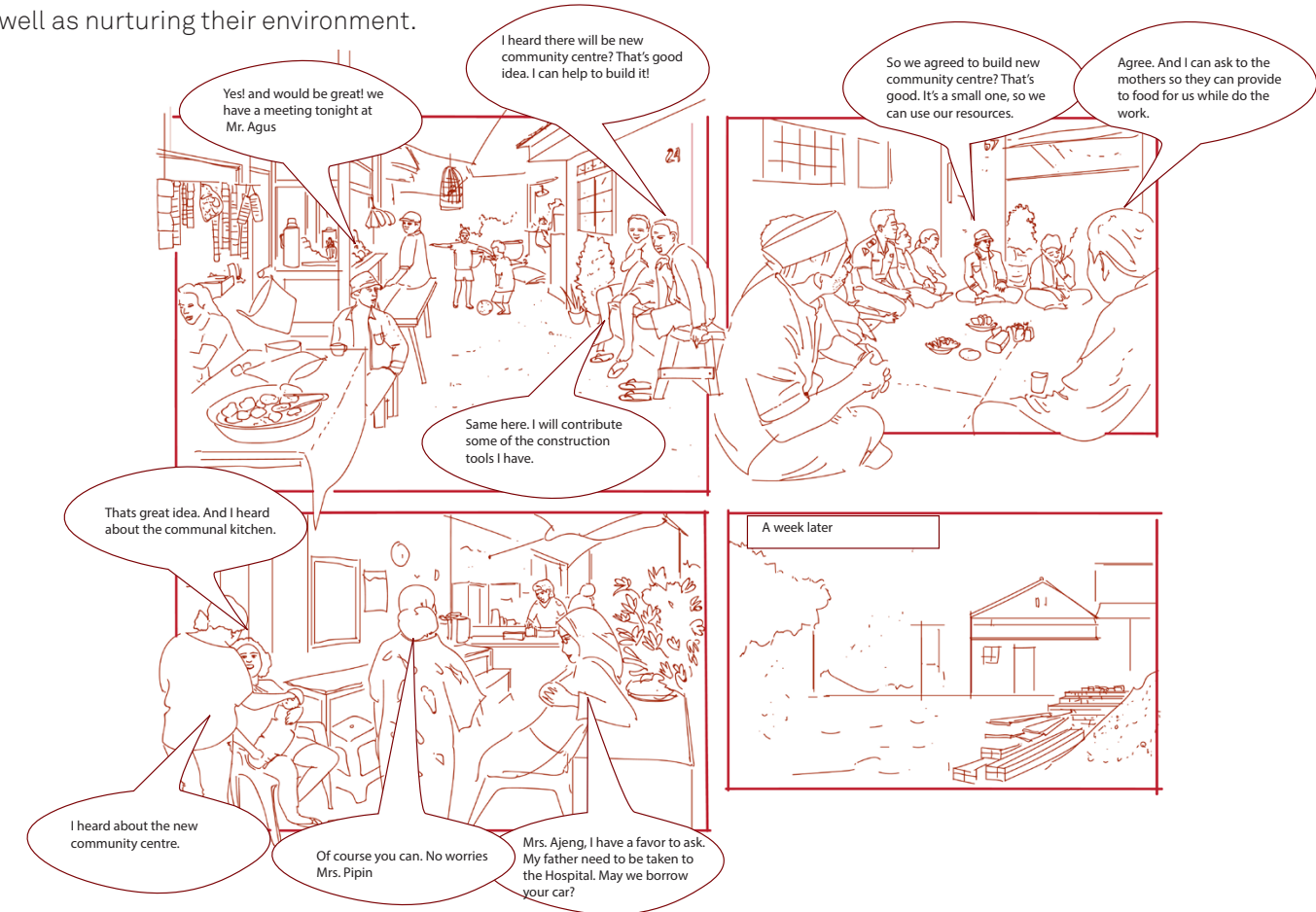


A story from Kampung

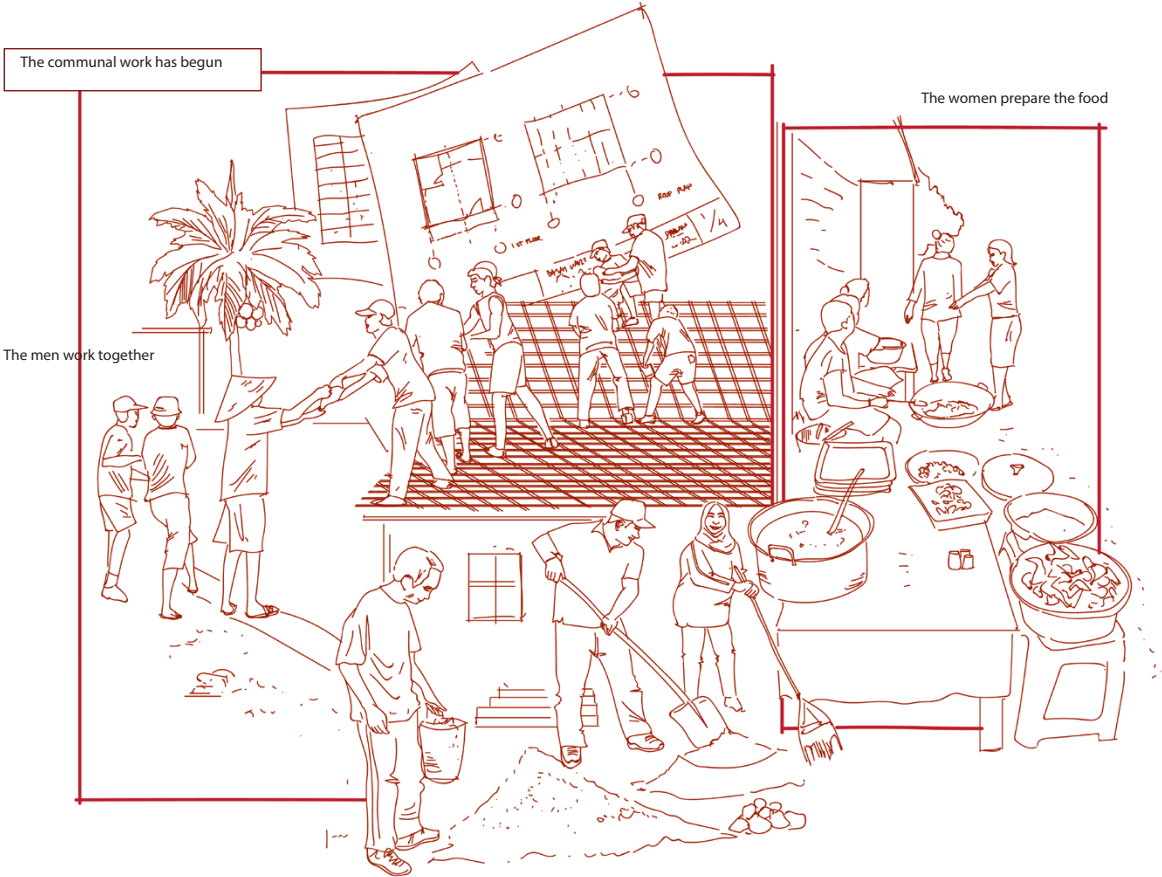
Here is explaining how people in Kampung has their own manage-ment to maintain their environment through voluntarily collective action - called - Gotong Royong.



And some times the initiative to improve their Kampung needs to be socialized through daily interaction. These maintain the interaction as well as nurturing their environment.



From there the collective action is made and most of the dwellers are participating through different actions. The gradual addition and changing in the urban structure of kampung is recognized.



Lessons from Kampung

Lesson's from Indonesia's Kampung

Walker (2004) explained that resilience in social-ecological systems has some qualities. First, the adaptability of the actors to maintain the system and its social components, and second is the transformability quality as the capacity of its system. The idea of these resilience's qualities aligned with the finding from literature research of Indonesia's Kampung.

Kampung has the adaptability quality from the community bonds represented in its social network, collective action known as Gotong Royong, self-organization, mutual dependence and reciprocity. Meanwhile, the transformability quality is shown in its urban structure that organically grows, is gradually enriched, flexible, and multi-functional.

Adaptability

ACTOR

SOCIAL CAPITAL

Quality	Social Network	Interaction	Social Interaction
	Self Organization		Learning
	Collective Action (<i>Gotong Royong</i>)		Collective Activities
	Reciprocity		Face-to-face meetings
	Trust/mutual dependence		

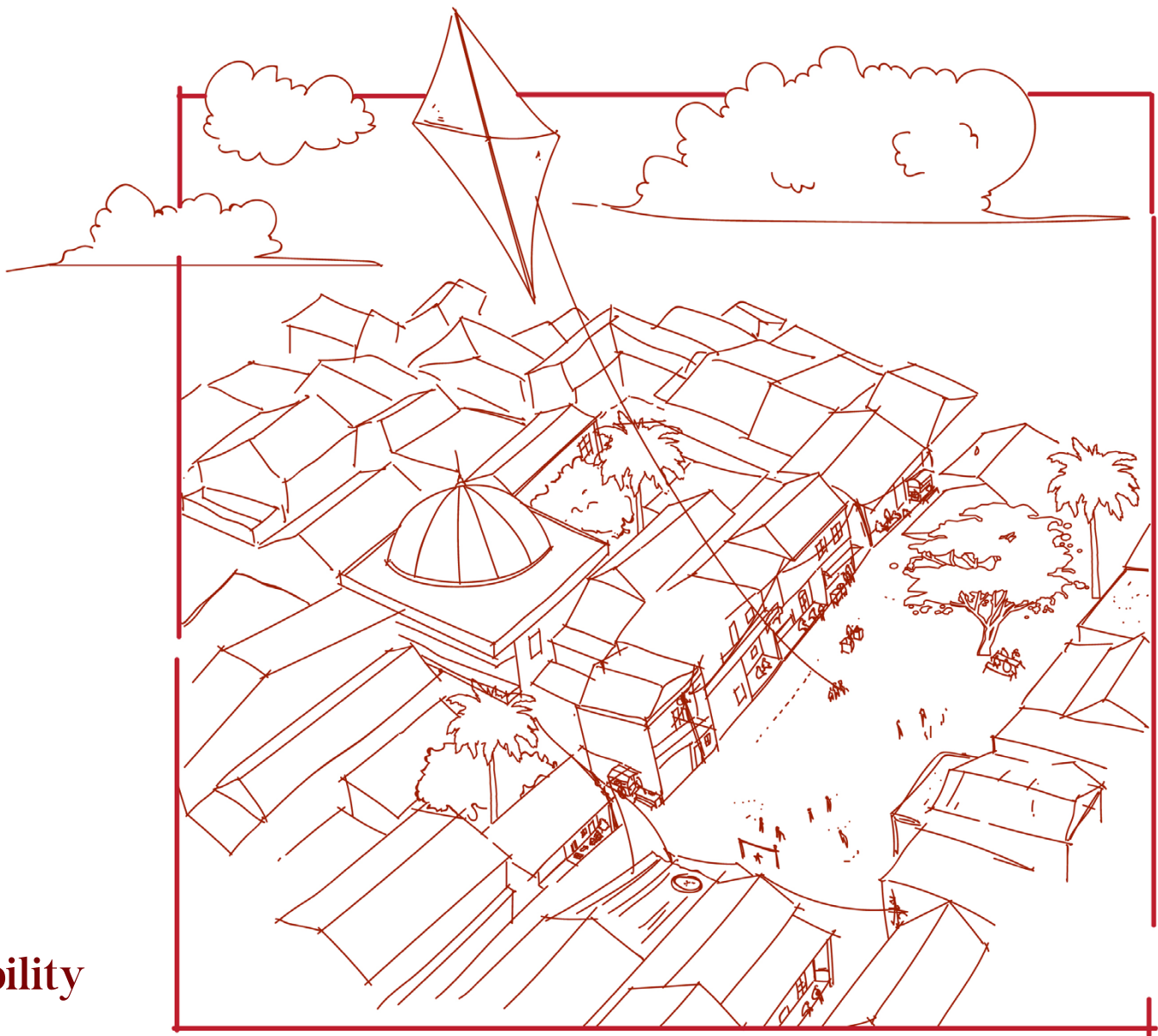
“ Social capital and **interaction mutually shape, and are shaped by, urban form and spatial structures** – an active relationship between place and society .
(Houghton, 2005). “

Transformability

SYSTEM

URBAN STRUCTURE

Quality	Organic
	Gradually enrichment
	Adaptive



Can social capital be Translated in the Dutch context?

The next question is; Can these lessons from Kampung be implemented in Dutch housing context? Is there a proof or any similar project in the Netherlands that emphasizes this social aspect?. It may still lack proven projects and more evidence that implies this cross-culture approach is especially related to resilience in the Dutch context. However, this project sits on a project example and the Hoptille community context. There is a project in Amsterdam, BajesDorp that accentuates the collectivity action and ownership. BajesDorp is a housing project that is owned by the residents and managed by them. The collectivity and freedom to create their own housing become the heart of this project. BajesDorp also manages several community activities and events such as communal garden and culture festivals to bring social interactions. This project gives an example of how the collective self-manages property as a tool to achieve social capital. Furthermore, collective action

and community life has been buzzing in Hoptille by the presence of Buurtwerkkammer and Hoptille community garden. This lay a foundation for this graduation project that will resonate in the neighbourhood.

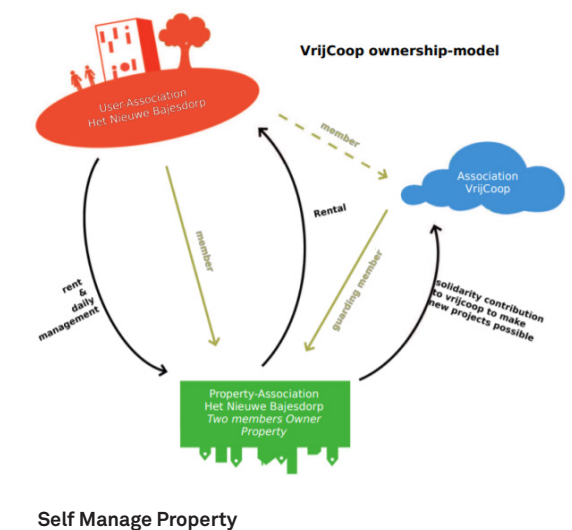
The rise of housing cooperative in the Netherlands, for example BajesDorp in Amsterdam. The idea of housing cooperative is to self manage their property through group (Bajesdorp.nl). The aim is to take out houses from the market so the rent price is low and make sure to the future renting. These action proves that self manage and autonomy of built environment can be done in the Netherlands.



Informatie brochure (2020) *Investeren in Idealen De Vrijkoop van BajesDorp*
(https://bajesdorp.nl/wordpress/wp-content/uploads/2020/10/brochure_vrijkoop_bajesdorp.pdf)

The project is set up according to the principles of Vrijkoop: as collective property,

Housing Cooperative



Why giving the autonomy to the resident is matter?

Giving higher autonomy to local community, could potentially empower them & increasing opportunities that would lead to freedom.

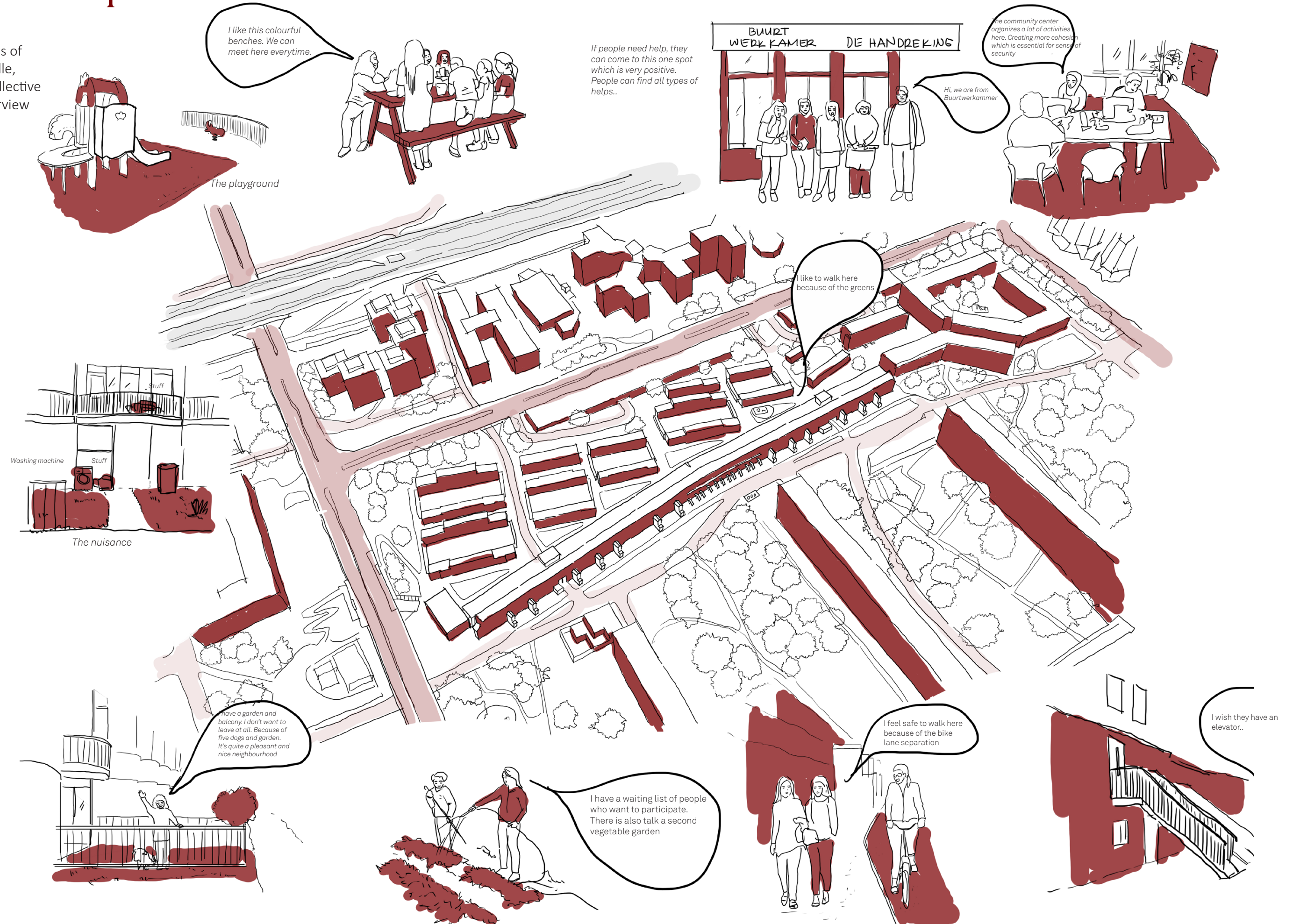
→ *Good development*

Having greater freedom to do the things one has reason to value is (1) significant in itself for the person's overall freedom, and (2) important in fostering the person's opportunity to have valuable outcomes. Both are relevant to the evaluation of freedom of the members of the society and thus crucial to the assessment of the society's development.

interpretation from the Development of Freedom by Amartya Sen

Hoptille Socio-Spatial Pattern

A graphic synthesis of social life in Hoptille, extracted from collective research and interview with residents



Approach & Intervention

3

Bijlmer Museum (2014) OUDE-H-BUURT-MET-HOPTILLE (<https://bijlmermuseum.com/de-bijlmer-in-tijd/oude-h-buurt-met-hoptille/>)

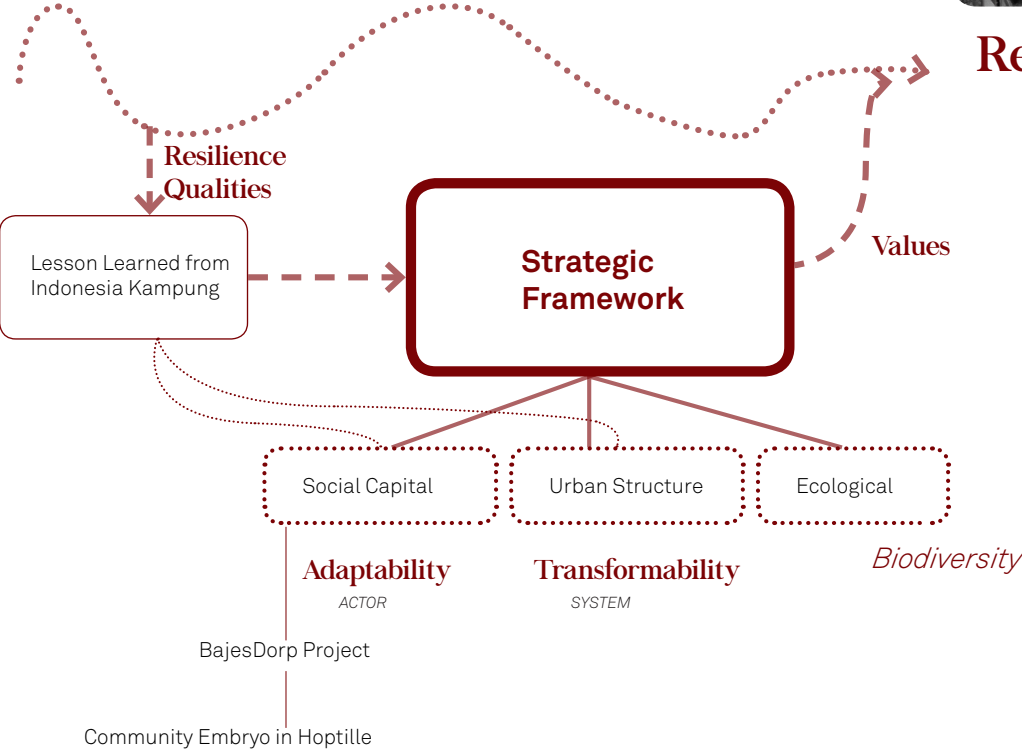
The Strategic Framework

Based on Kampung resilience research, the Kampung people's social bonds and its organic growth as an urban structure allow higher adaptability and flexibility that lead to better resilience. The Kampung's social bonds can be seen in its social network, collective action, self-organization and reciprocity (Shirleyana, 2018). This project defines these characters as adaptability. Meanwhile, social capital and transformability of the urban structure can be seen in the flexibility of space in Kampung. People can improve their home or public facilities based on their need and financial capacity. Accordingly, these qualities become the ingredients to form a strategic framework for improving Hoptille's resilience in this project.

Ecological elements then enrich the framework as part of the environmental position that will cover urban strategy to material selection. Part of the constant reflection from this design process, the environmental impact assessment is conducted to measure how big the impact to the existing values. This becomes crucial to understanding how far the improvement or is there any negative impact that needs to be mitigated.



Findings _ Problems
_ Challenges



Resilient Hoptille

1. Social Capital - Actors - Adaptability

Through research and constant feed-back-reflection, this project brings the adaptability in social capital from Kampung to Hoptille through the social interaction, network, and collective action that will be manifested by giving higher autonomy of the residents to self-manage and organize the neighbourhood.

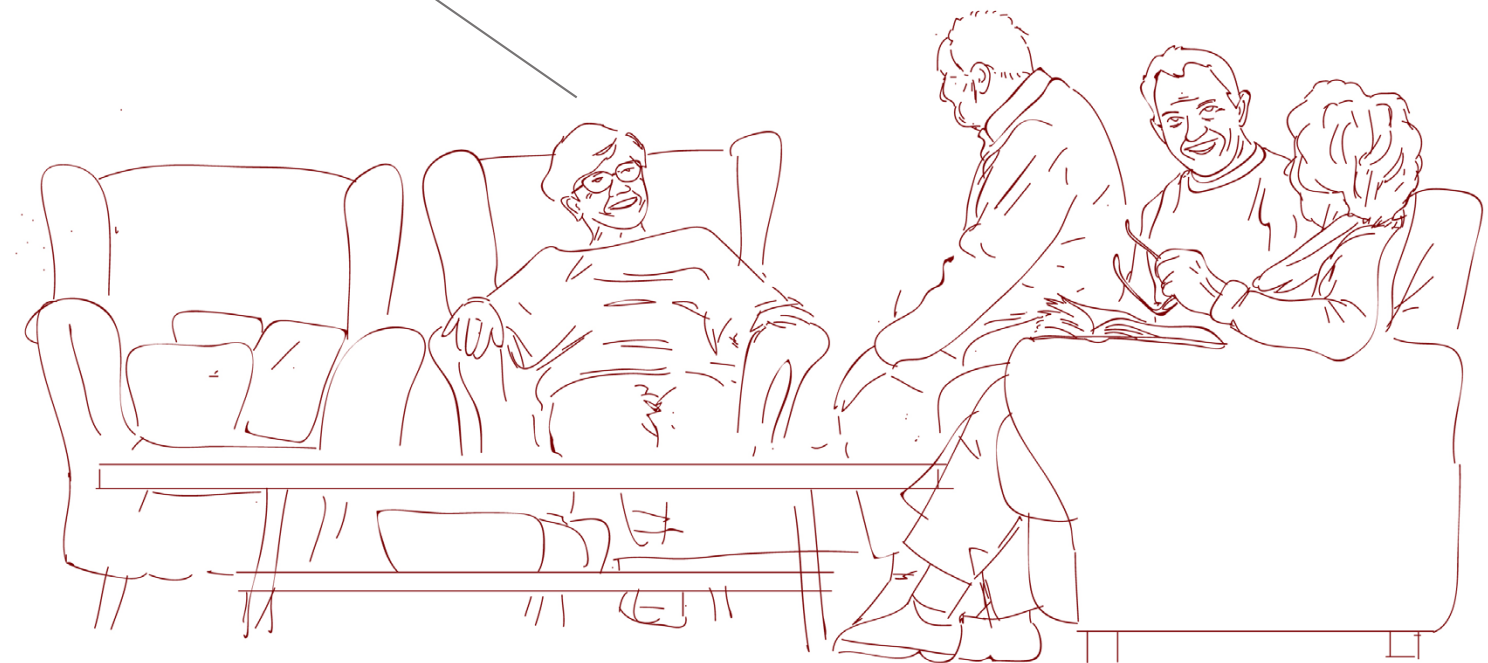
Make use of Hoptille Resident Association as a **bridge to the stakeholder**, initiate different **collective meeting and action** more **responsibility to the environment**.

Strengthening the **role of resident in decision making and planning of Hoptille**. It also create the sense of belonging

Social bonds by knowing the neighbours and **enhance the face to face meeting**

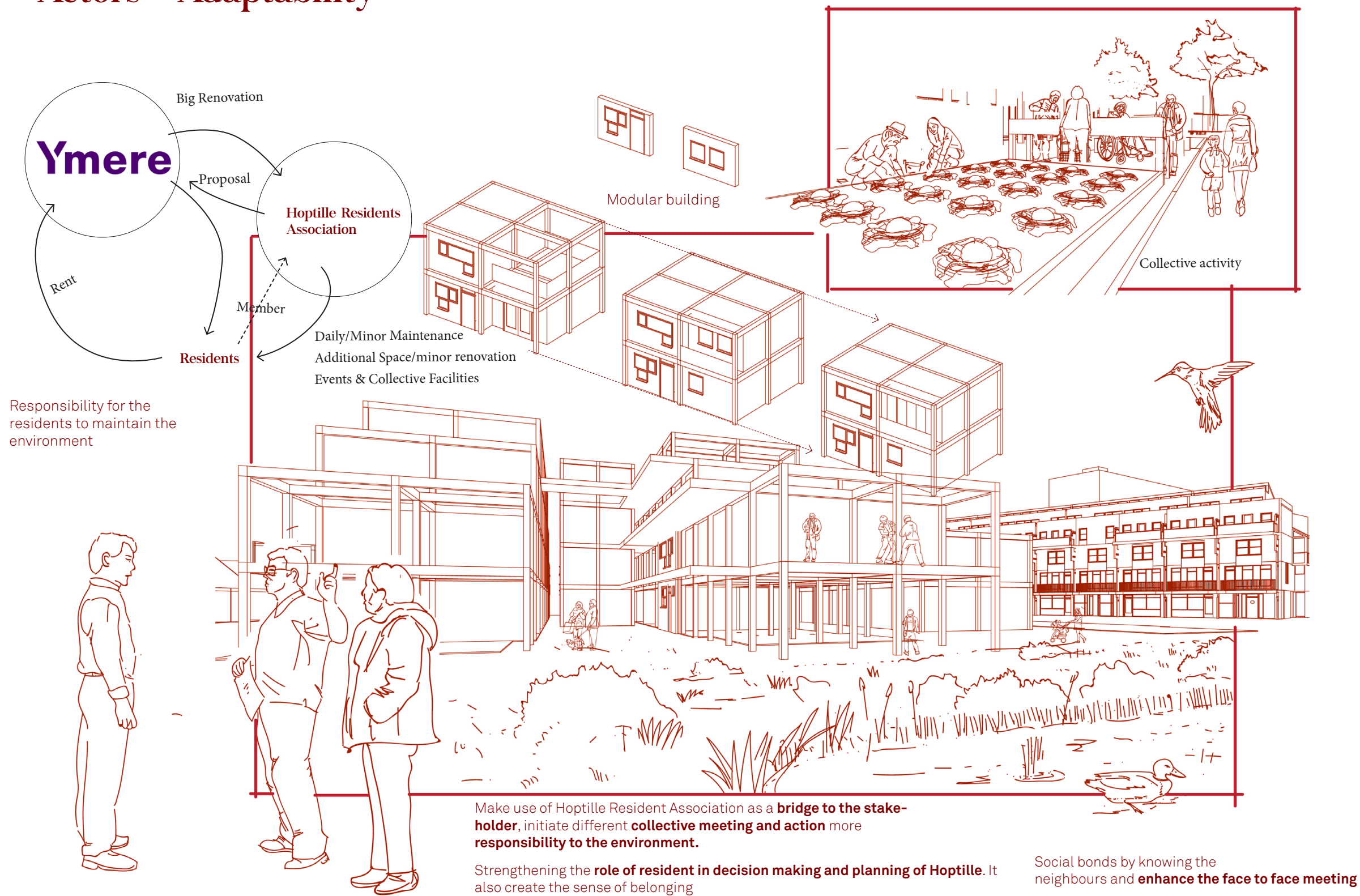
Collective Programs

Build their own Buildings



1. Social Capital - Actors - Adaptability

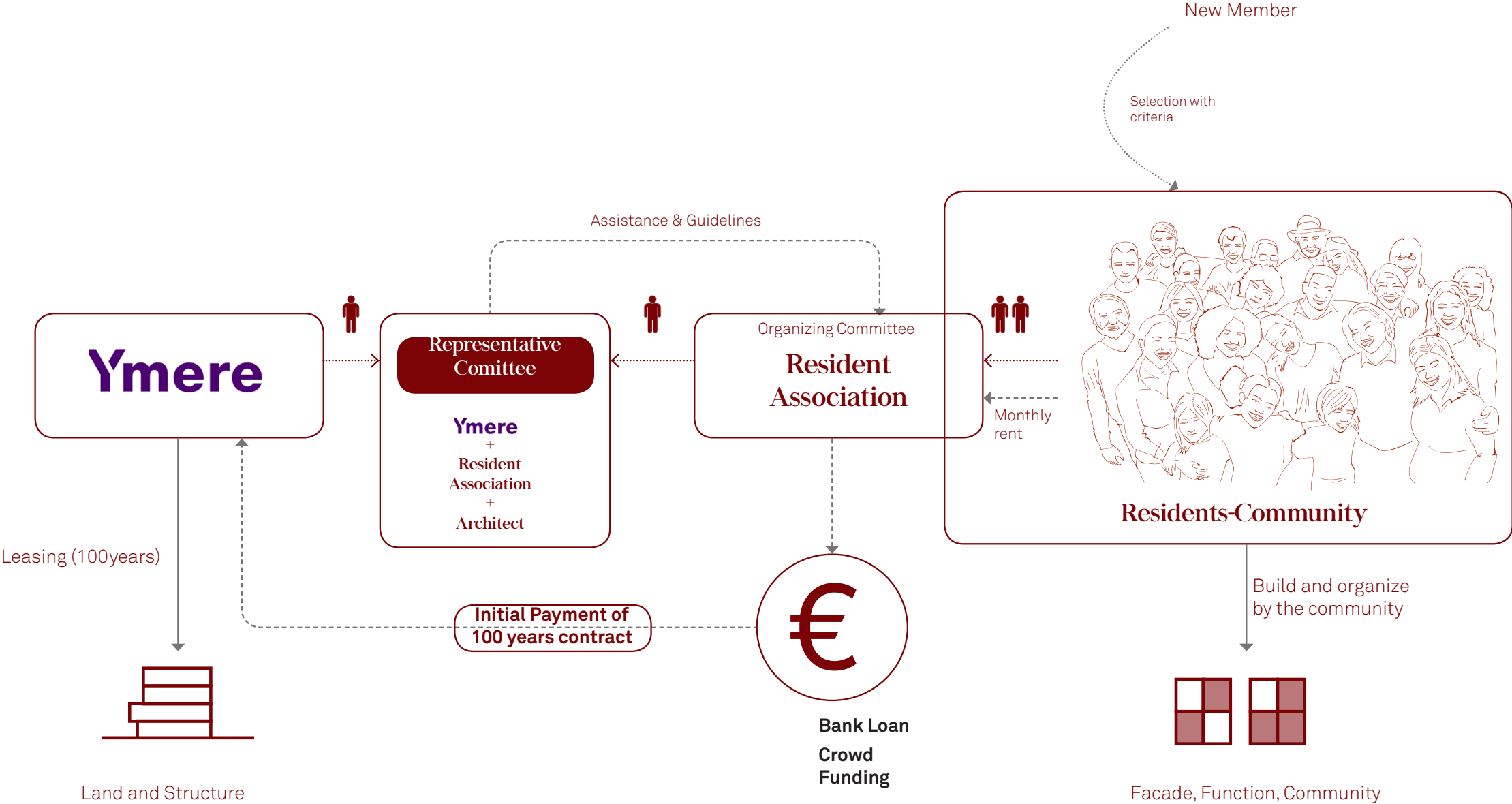
Residents also have a position in the decision making, and planning in Hoptille which involve the collaborative process of choosing and building their own building. These approaches are a translation from the Kampung's social interaction and collective activities based on kinship.



Organization Model

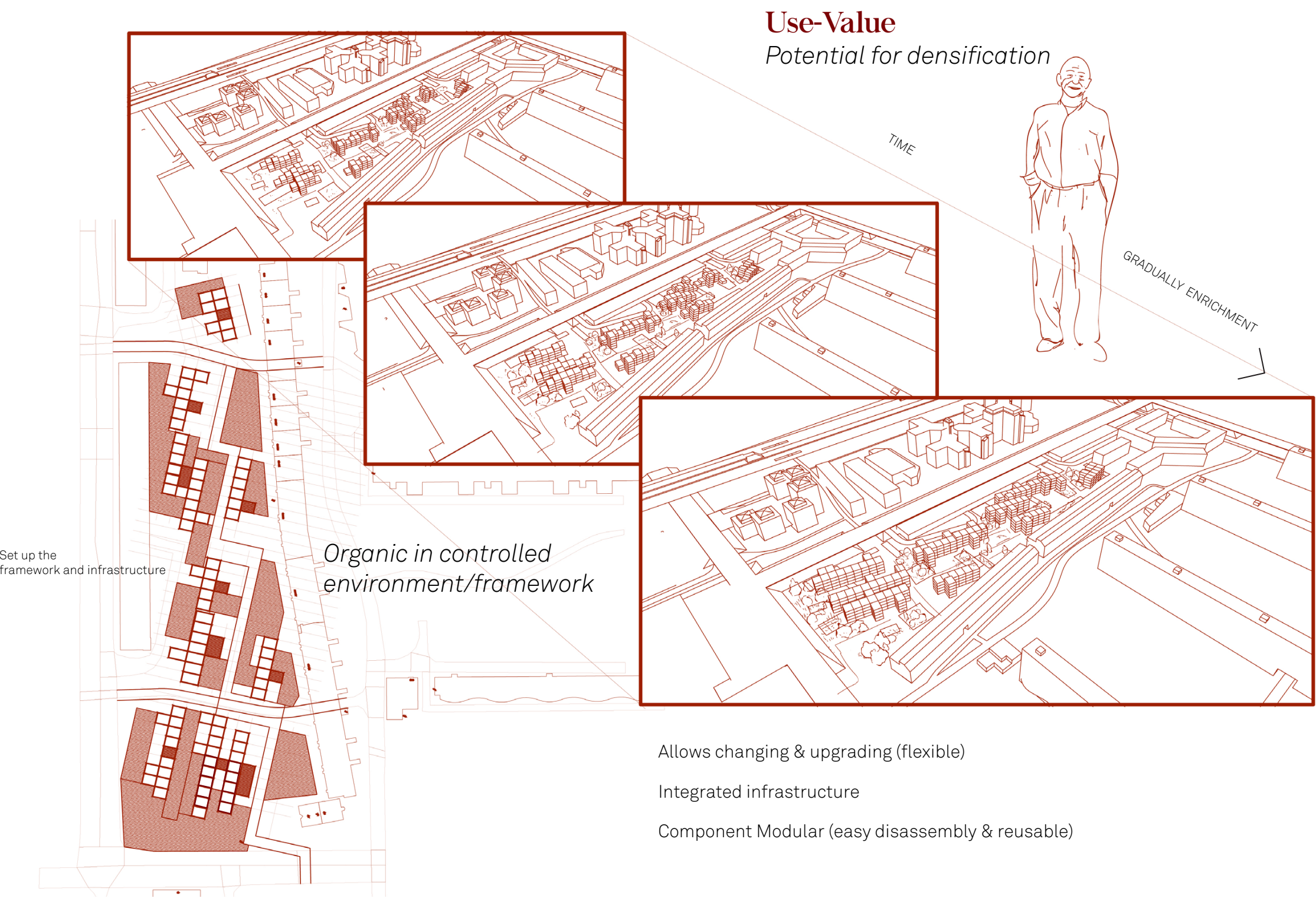
The proposed organization model for this project is combination between the Hoptille ownership by Ymere and the emerging of housing cooperative in the Netherlands. The role of shared ownership will be emphasize through this model. Ymere on one hand will release a leasing for land and structure, and the other hand, residents will fill this “unfinished” housing with their own function and material. These co-ownership will offers each stakeholder advantages.

Ymere will receive longer tenants and strong community, less initial cost of densification, to the less burden of the building management. Meanwhile residents will receive longer period of contract, lower rent cost, and more role in planning and decision making of the neighbourhood. This mutual benefits will improving the quality of resilience capacity.



2. The Urban Structure - System - Transformability

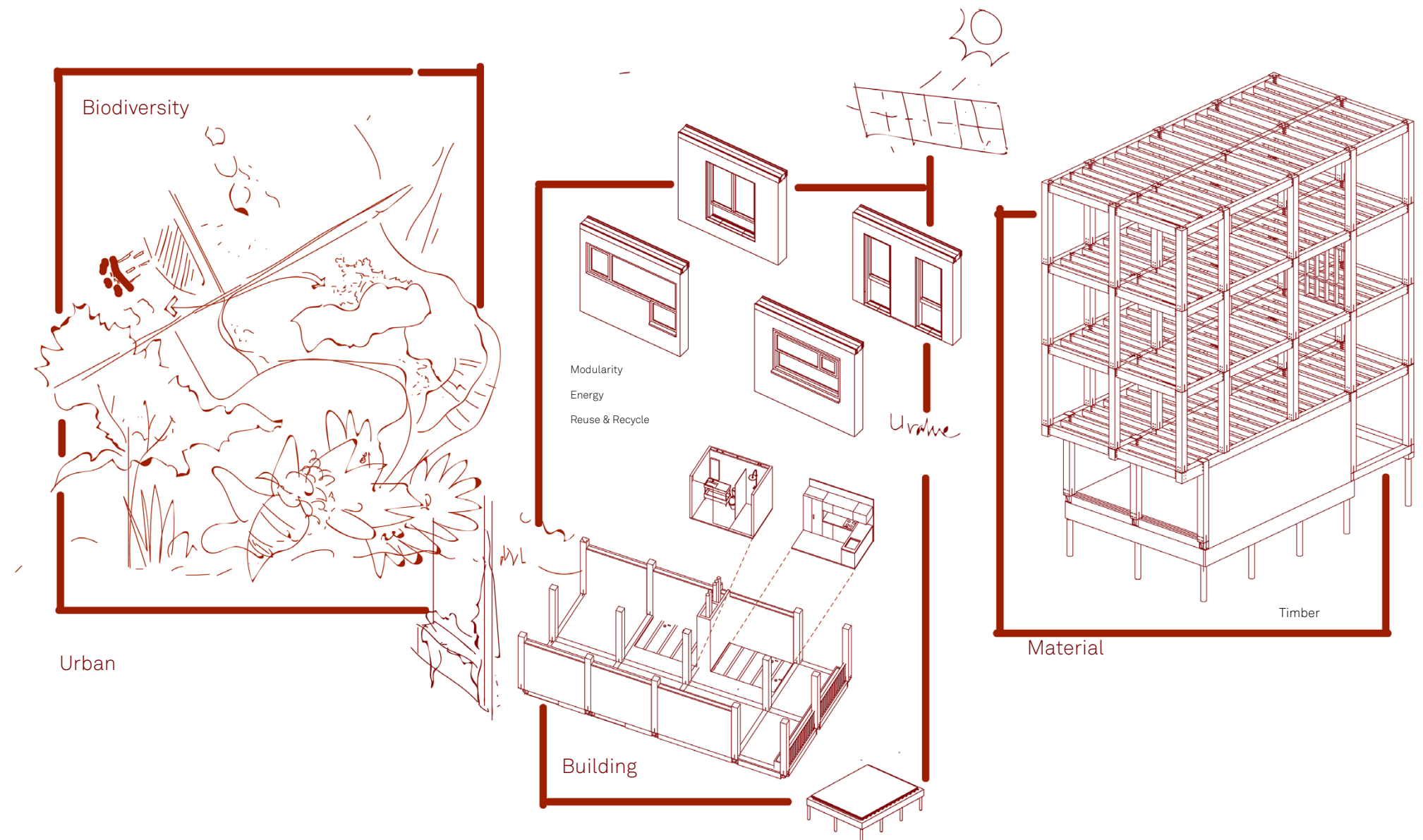
The second approach is the transformability aspect of the urban structure that allows the neighbourhood to sustain and grow to some extent to allow some function and size change to adapt to the future needs. It will be manifested through open buildings in the low-rise Hoptille. The flexibility needs modular design that allows people to change and choose function and facade. This approach implies the transformability quality of the Kampung's urban structure that offers flexible use of spaces, as well as gradual improvement over the time to match with needs and financial capacity of the resident.



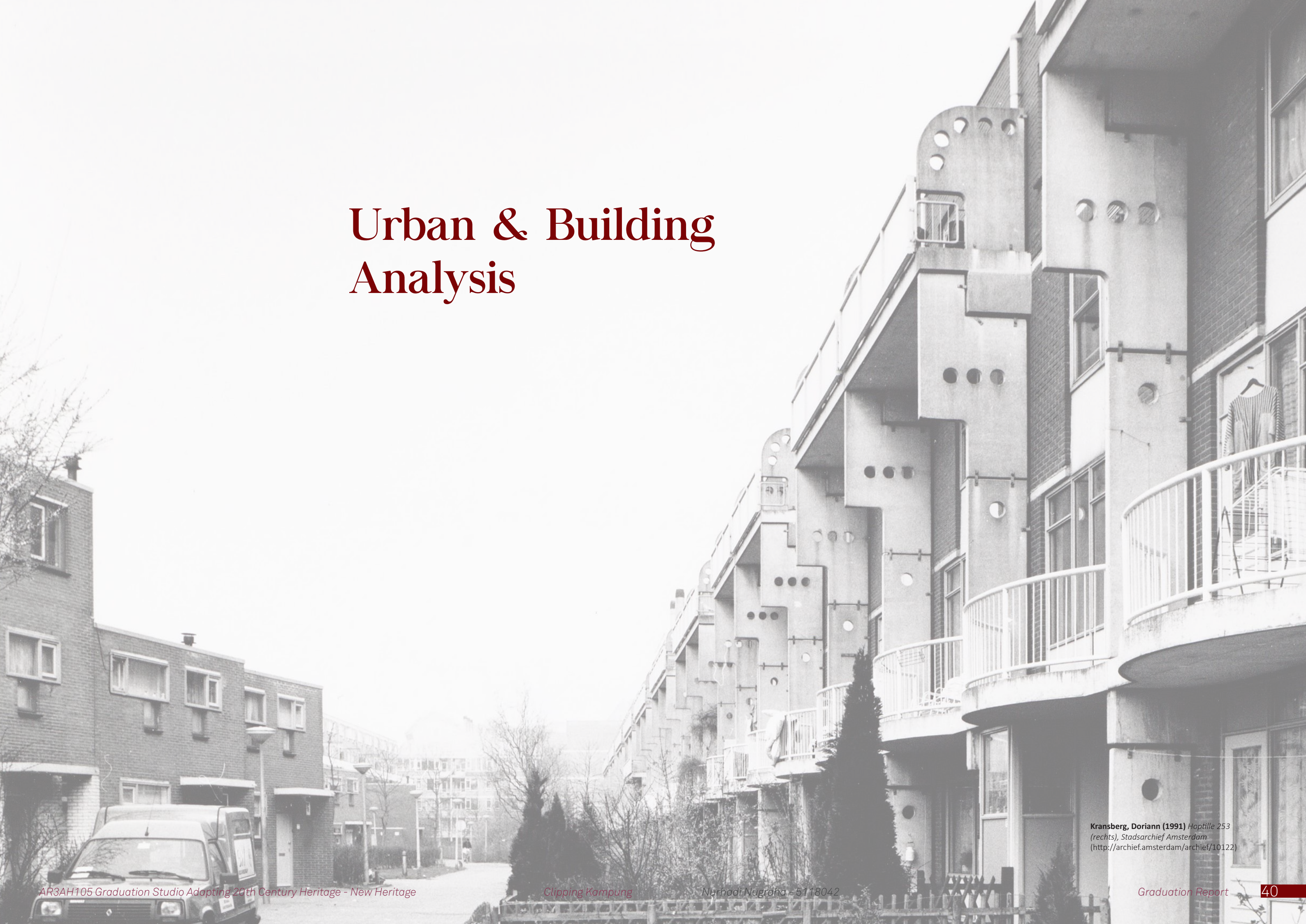
3. Ecological

Ecological- Environmental Position
- that will generates through ur-
ban with its aim to enhance biodi-
versity through different layers of
green to the building with energy
wise, modular and prefabricated
that maximized material used, also
reuse some of the existing struc-
ture and the materiality of timber
is selected to ensure the approach
is environmental friendly.

Environmental Position



Urban & Building Analysis



Kransberg, Doriann (1991) *Hoptille 253*
(rechts), Stadsarchief Amsterdam
(<http://archief.amsterdam/archief/10122>)

Hoptille

- ARCHITECTS : Kees Rijnbout & Soerjd Soeters
'result of which the two eight-storeys residential towers are canceled. It basic principle, the long inner corridor acting as an extension of the public road continued to promote integration between the different households maintained in the plans.' (Wassenberg, 1989)



Hoptille ¹



Adding access in the middle part of the building

- Project Completion

- Second Renovation



Bijlmermeer began



Bijlmermeer²

- First Renovation

Due to the socio-problem occurred in Hoptille



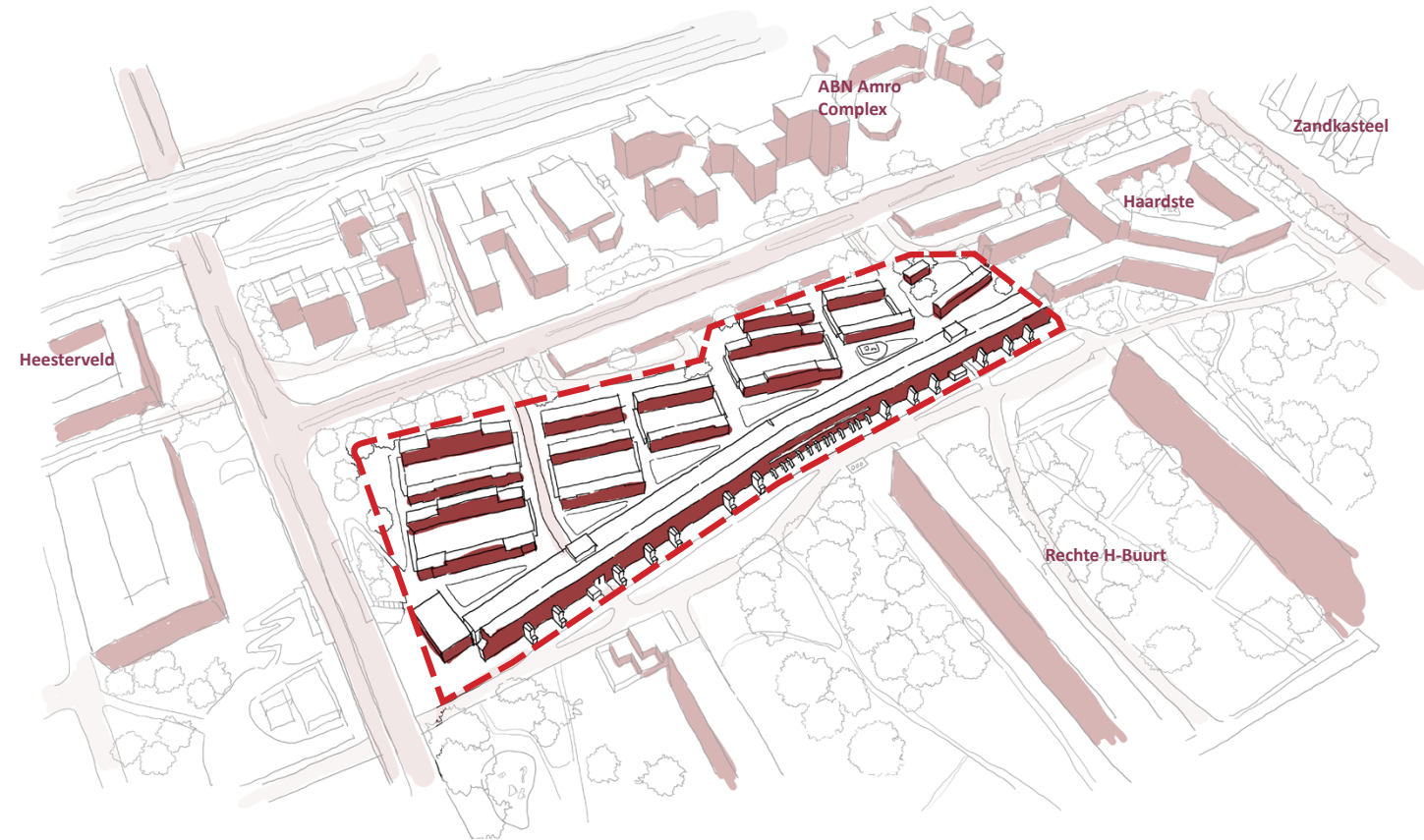
Portiek in Hoptille ³

- More Housing?

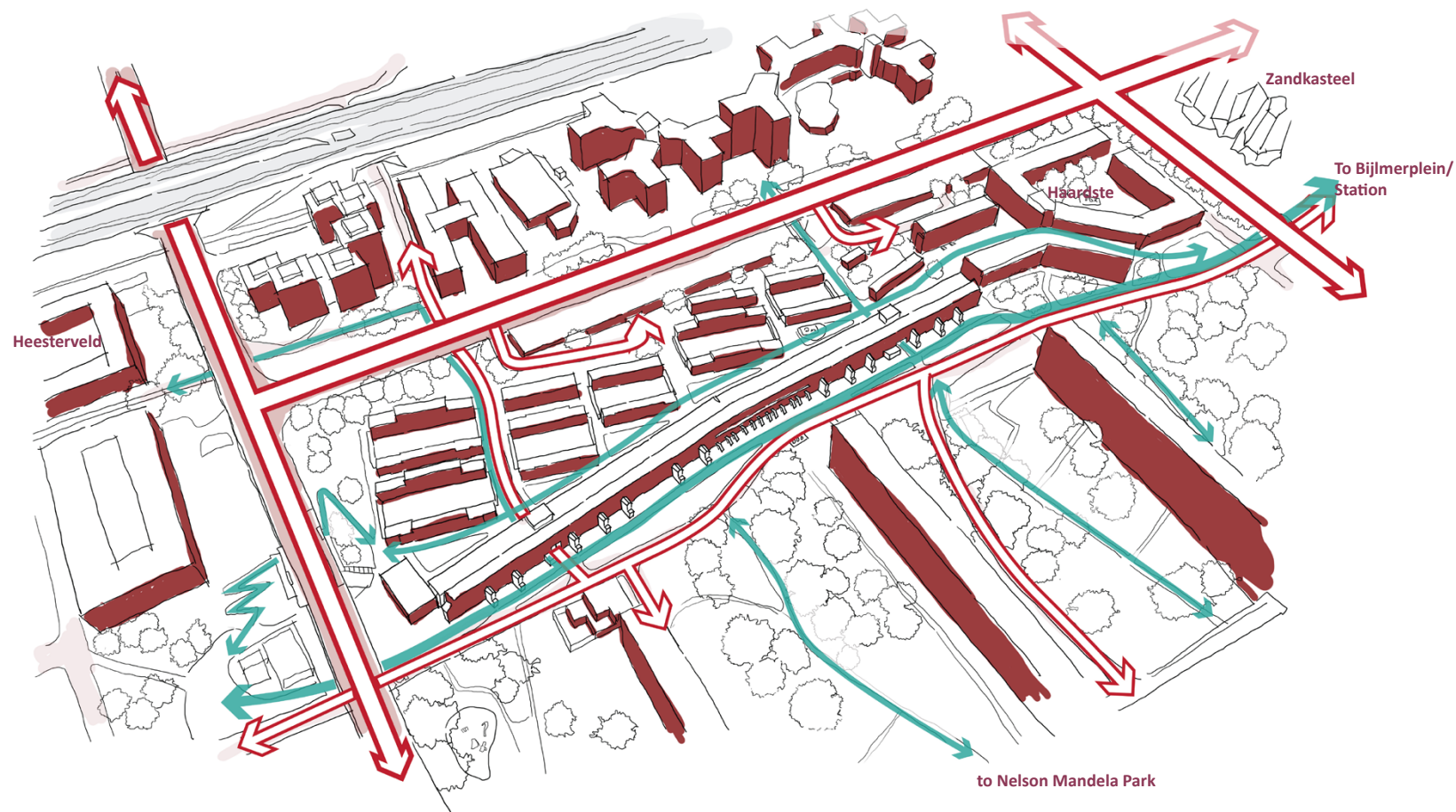
1. **Bijlmer Museum (2014) OUDE-H-BUURT-MET-HOPTILLE** (<https://bijlmermuseum.com/de-bijlmer-in-tijd/oude-h-buurt-met-hoptille/>)
 2. <https://www.dearchitect.nl/projecten/bijlmermeer-in-amsterdam-door-siegfried-nas-suth-1973>
 3. **Stadsarchief Amsterdam (n.d.)**
 Hoptille. Verbetering van 220 wooneenheden tot 227 woningen en wooneenheden. Ontworpen door L.R.R. (http://archief.amsterdam/archief/5293.FO_B)

Hoptille Analysis

Context Analysis



Function and Building Heights



Accessability

Hoptille has its own accesibility in between of the elevated road, which I want to keep and improve. Also in term of the building height hoptille consist to 4-5 storeys mid-rise and 2-3 low rise. Surrounded by the high rise in the east and west.

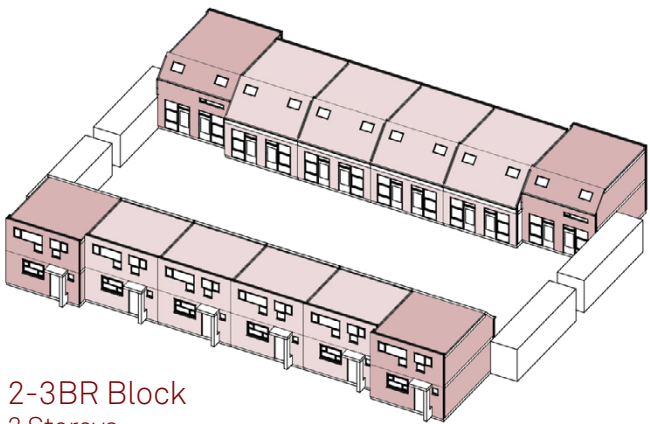
Building Analysis

Existing Building Block

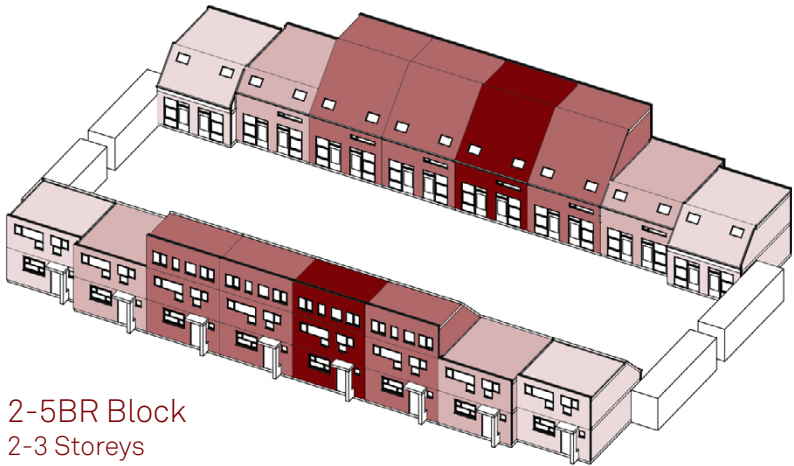


TOTAL : 103 units

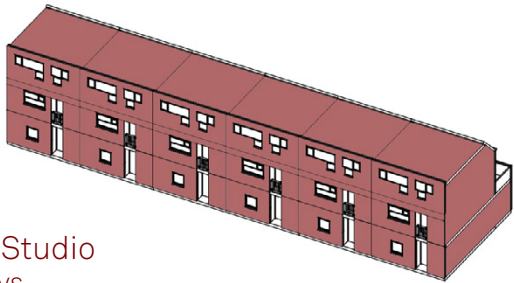
In general hoptille low-rise consist of 2-3 storeys varies from 2-5BR.



2-3BR Block
2 Storeys

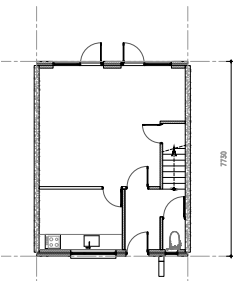


2-5BR Block
2-3 Storeys

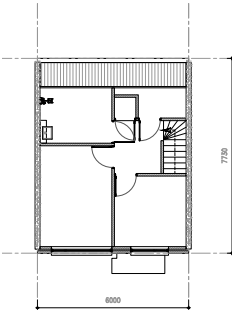


3 BR+Studio
3 Storeys

2BR (90 sqm)

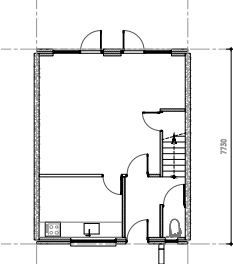


GF

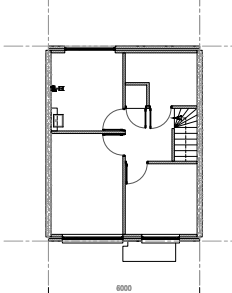


L1

3BR (90 sqm)



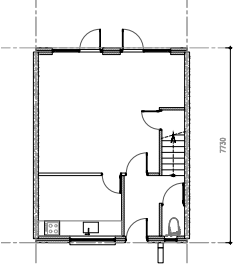
GF



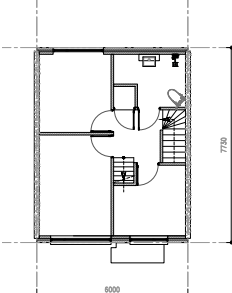
L1

4BR (135 sqm)

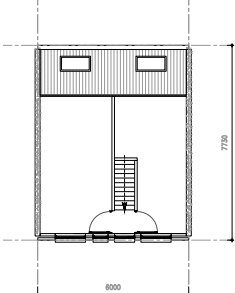
5BR (135 sqm)



GF

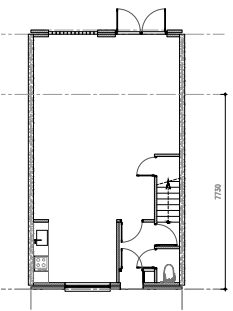


L1

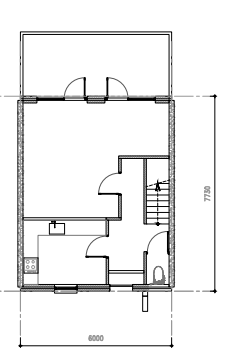


L3

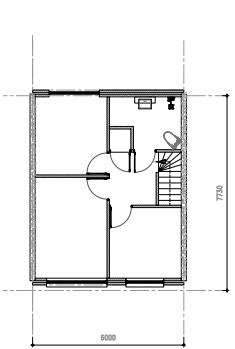
3BR+Studio (149 sqm)



GF

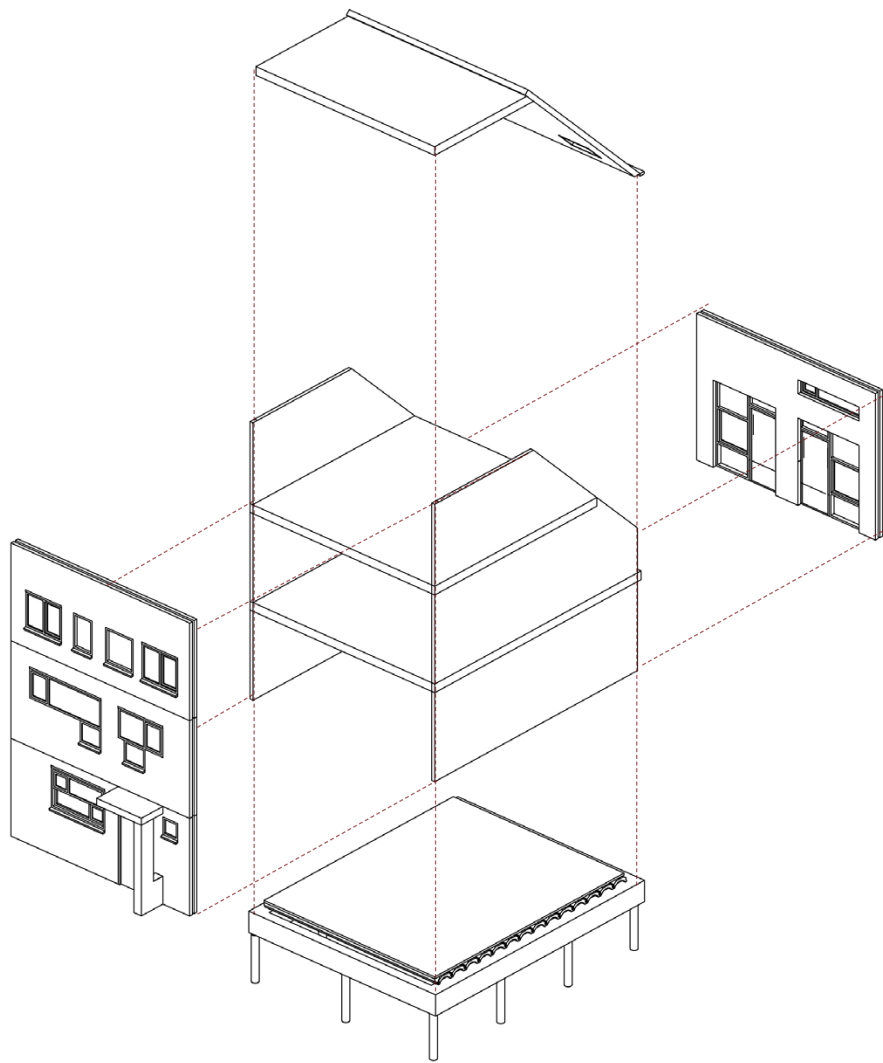
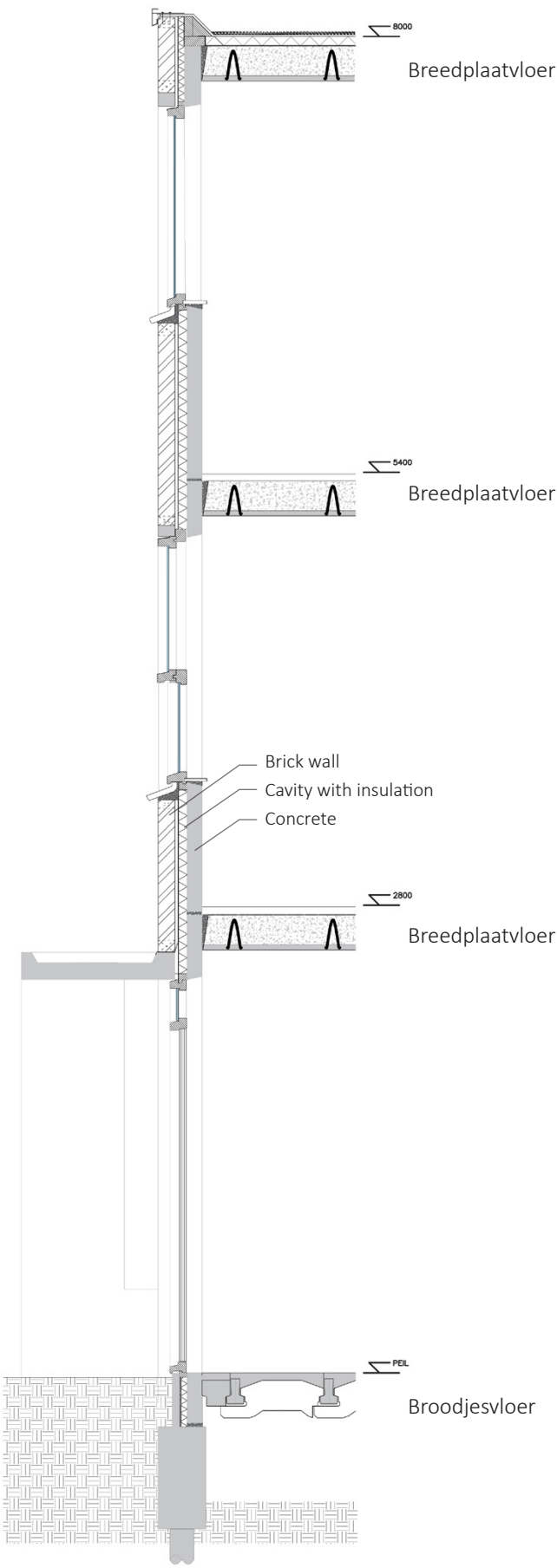


L1



L3

Building Analysis



The structure is made of prefab concrete, broofjesvloer, breedplaatvloer and brick wall.

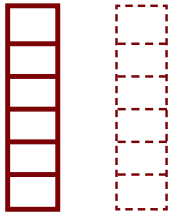
Interventions

Stadsarchief Amsterdam (n.d.)
Hoptille. Woningverbetering. Ontworpen door
L.R.R./(<http://archieff.amsterdam/archief/5293>.
FO_B)

Low-Rise Building Intervention


Transformability

1. Building Block Strategy



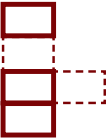
Reuse Partially

2. Building Height




Mid-Rise (4-5 storeys)

3. Building Strategy




Modular

4. Function Freedom



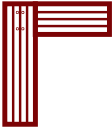
Combination (Variants & Options)

5. Facade Freedom



Combination (Variants & Options)

6. Building Material



Wood

Criteria

Transformability

Urban Block

1. Building Block Strategy

	Less Intervention to the existing blocks	Degree of Flexibility	Less Potential of Energy & CO2 emissions	Potential of Densification
Renovation	●●●●●	●○○○○	●●●●○	●○○○○
Addition	●●●●○	●●○○○	●●●○○	●●○○○
Reuse Partially	●●○○○	●●●●○	●●○○○	●●●●○
New Block (Material Recycling)	●○○○○	●●●●●	○○○○○	●●●●●

2. Building Height

	Hoptile Context (Low & Mid-rise)	Potential of Densification
Low-Rise (2-3 storeys)	●●●●●	●○○○○
Mid-Rise (4-5 storeys)	●●●●○	●●●○○
High-Rise (>5 storeys)	●○○○○	●●●●●

Building

1. Building Strategy

	Less Complex (Makeable & (Dis)assembly - able)	Degree of Freedom	Less Construction Time	Easy to Grow
Modular	●●●●○	●●●○○	●●●●○	●●●●●
non-Modular	●●○○○	●●●●●	●●○○○	●●●●○

2. Function Freedom

	Degree of Freedom	Utilities & Installation	Spatial Quality
Fix	○○○○○	●●●●●	●●●●●
Flexible-max	●●●●●	●○○○○	●●○○○
Combination (Variants & Options)	●●●○○	●●●●○	●●●●○

3. Facade Freedom

	Degree of Freedom	Harmony	Climate Adaptation
Fix	○○○○○	●●●●●	●●●●●
D.I.Y.	●●●●●	○○○○○	●●○○○
Combination (Variants & Options)	●●●○○	●●●●○	●●●●●

Material

1. Building Material

	Sustainability (Energy, CO2 emissions, recycle potential)	Transformability (usage)	Less Complex (Makeable & (Dis)assembly - able)	Fire Resistance	Light Weight
Concrete	●○○○○	●○○○○	●○○○○	●●●●●	●○○○○
Steel	●●●○○	●●●●●	●●●●○	●●●●●	○○○○○
Brick	●●○○○	●○○○○	●●○○○	●●●○○	●●○○○
Wood	●●●●○	●●●●●	●●●●●	●●○○○	●●●●●

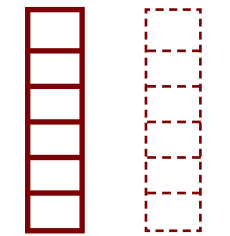
The low rise intervention will implement these criteria; reuse partially, max building height 5 storeys, modular, combination variants of function and facade and using timber as building material. The decision making used set of criteria that fit into the adaptability, transformability, and ecological framework

Building Intervention

The intervention focus on the low rise Hoptille as its potential to densification and more suitable to the implementation of this project’s framework.

1. Building Block Strategy

So the building strategy will be reuse partially the urban structure of low rise to create better enclosed building block. The general idea is to reuse exiting foundation and ground level prefab concrete structure.



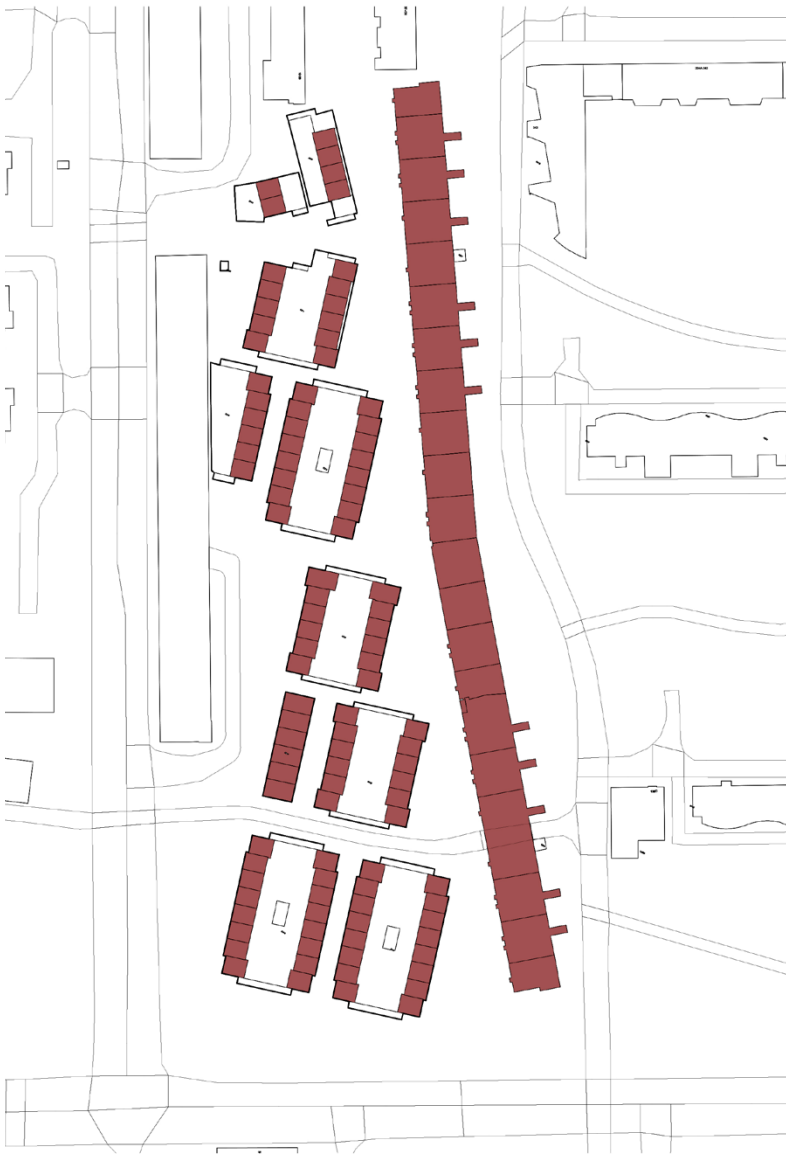
Reuse Partially



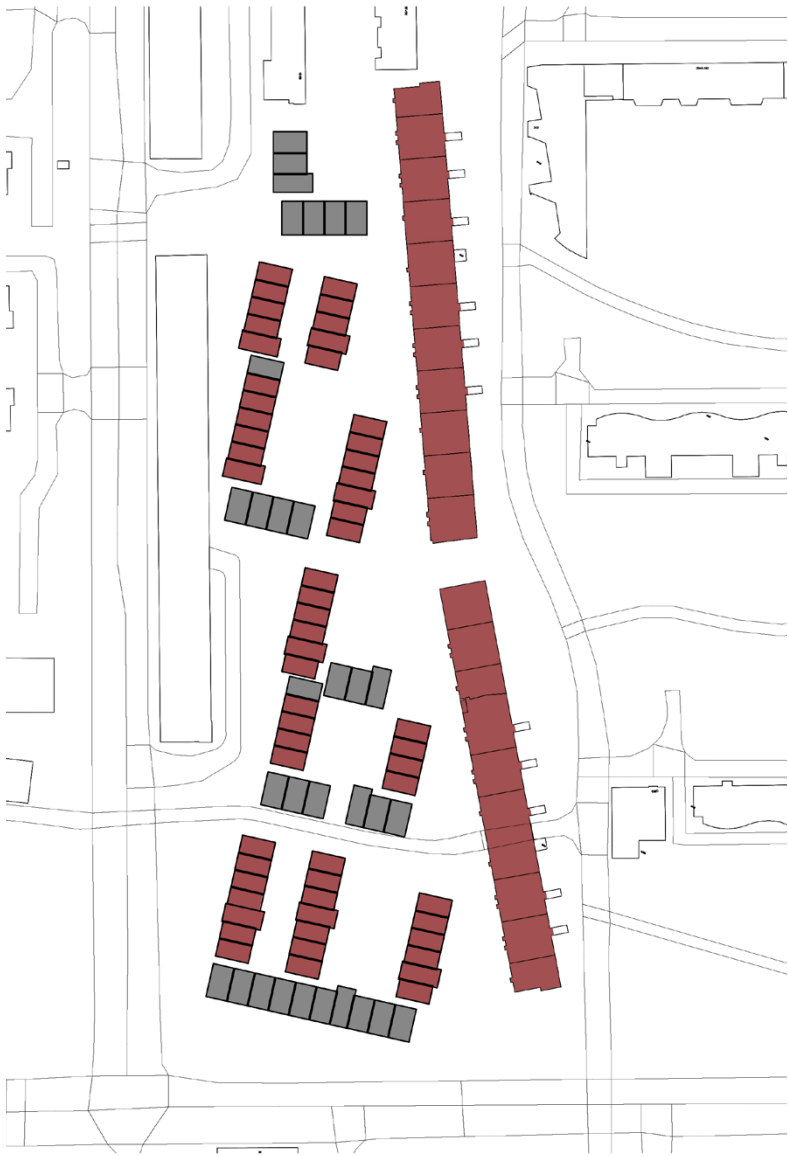
Mid-Rise (4-5 storeys)



Stadsarchief Amsterdam (1981) *Luchtfoto Bijlmer Centrum*
(<http://archieff.amsterdam/archief/10009.B>)



Existing Urban Block



Proposal Urban Block

Building Intervention

2. Building Height

The building height will be kept as 4-5 storeys to integrate with idea of mid-rise Hoptille as anti-Bijlmer and became more human scale building.

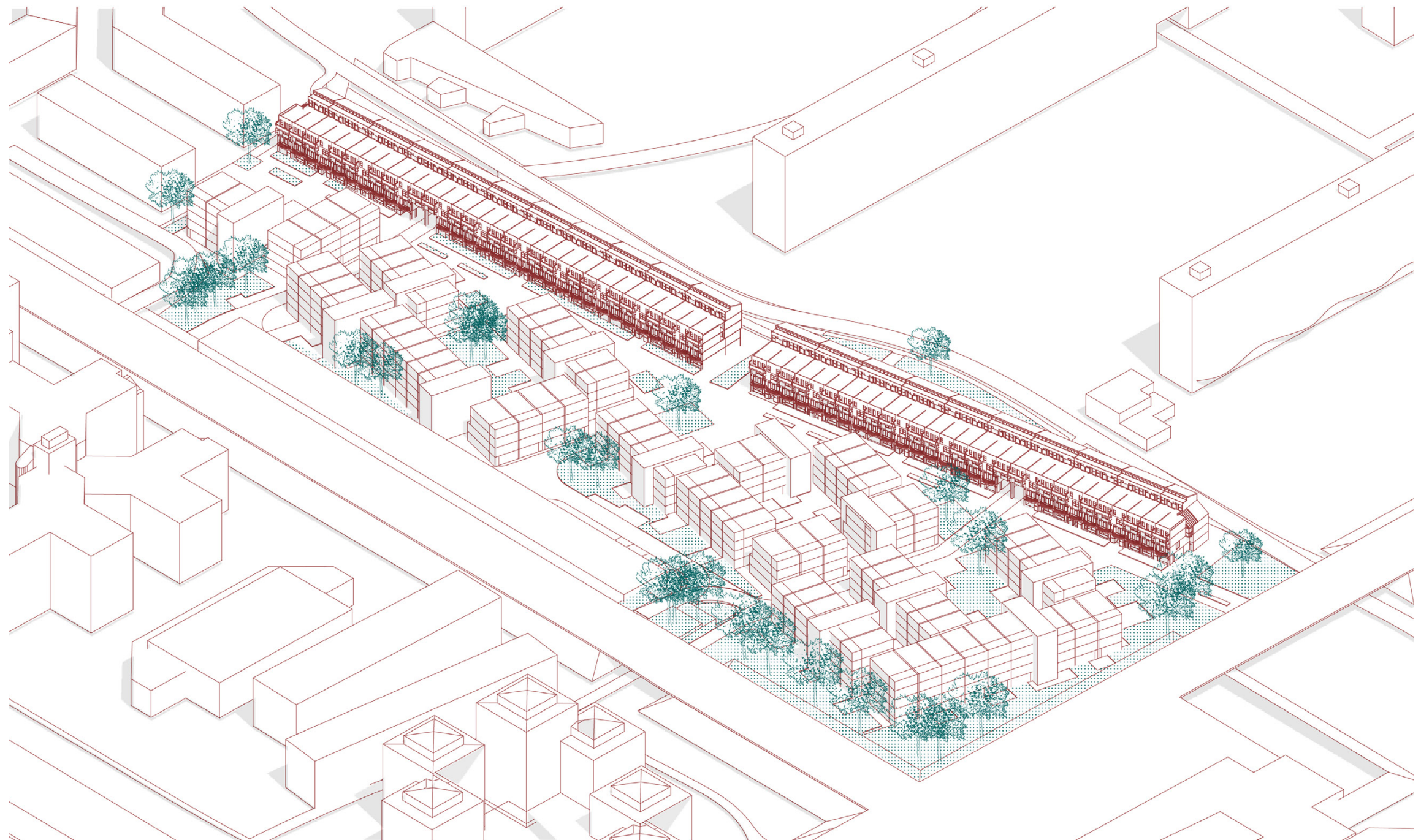


Mid-Rise (4-5 storeys)



Hoptille Context
(Low & Mid-rise)

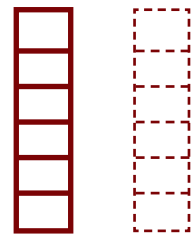
Potential of
Densification



Stadsarchief Amsterdam (n.d.) Hoptille. Ontworpen door VDL (Verster Dijkstra Loerakker)
(http://archief.amsterdam/archief/5293.FO_B)

Building Intervention

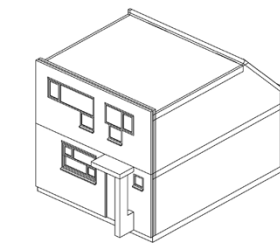
1. Building Block Strategy



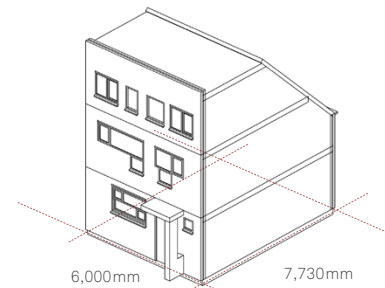
Reuse Partially

The intervention on low-rise buildings is made as the response to the low heritage value of these family houses and potential to further densifying. In order to implement various strategies of transformation, analysis of building blocks and existing housing types have been done. There was a moment where this project demolished the low-rise entirely and created a new urban structure. The ecological boundaries imply the energy and carbon footprint then take into consideration to use some of the existing structures. It resulted in the use partially of the existing building footprint and foundation and some structural elements of the existing building.

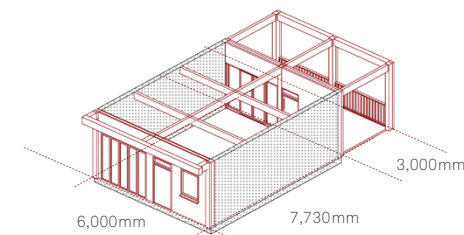
The new structural open building is using glue-laminated timber as the main post-beam structure. The reason to use glulam is a consideration to use sustainable material due to the negative carbon footprint of the timber and the flexibility of use of timber that can be dismantled easily. The intervention needs to strip the facade of the low-rise. This also becomes a consideration to reuse the component such as windows or doors in the new intervention.



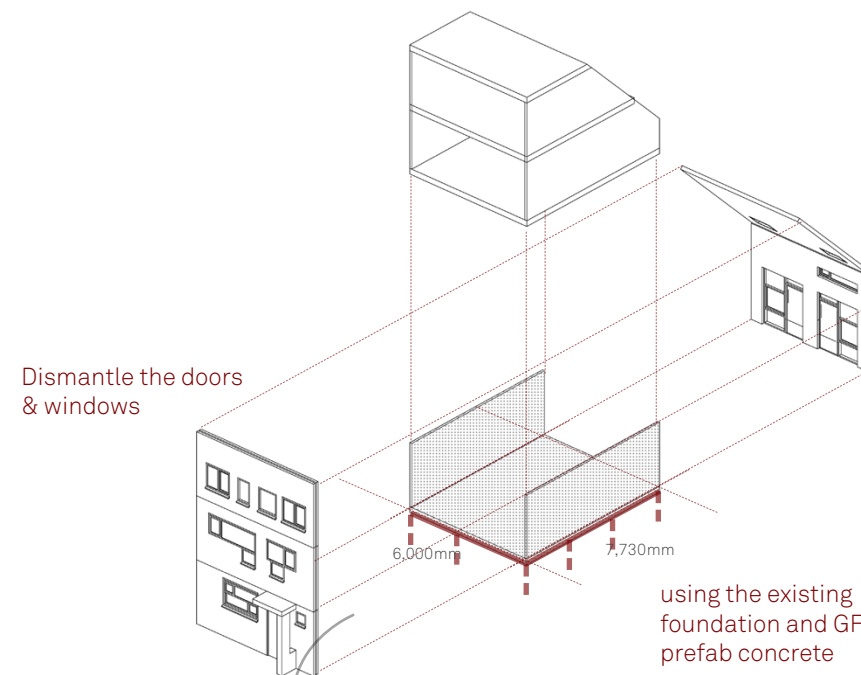
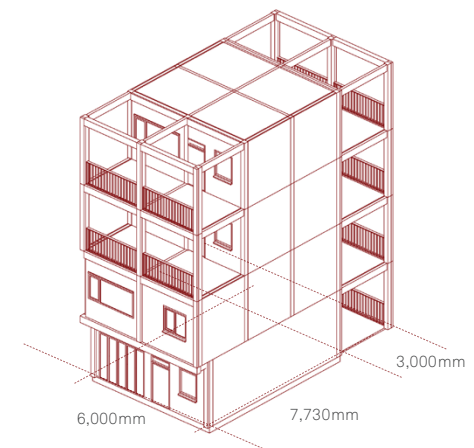
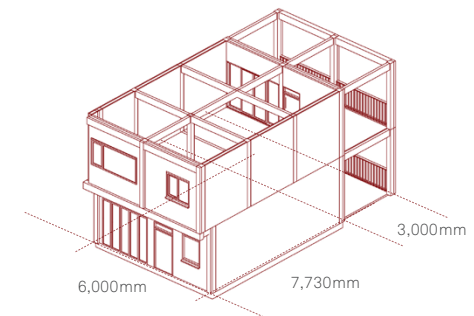
2-3BR



4-5BR



Glulam timber as new structure



Existing brick Bricks will be use as .. external wall? partition wall? paving? heat storage? park furniture

Crushed concrete - down-cycling to city and some can be used as park furniture



Source : Yong Gwan Kim (n.d.) Hanil Visitor Center

Potentially Urban Mines

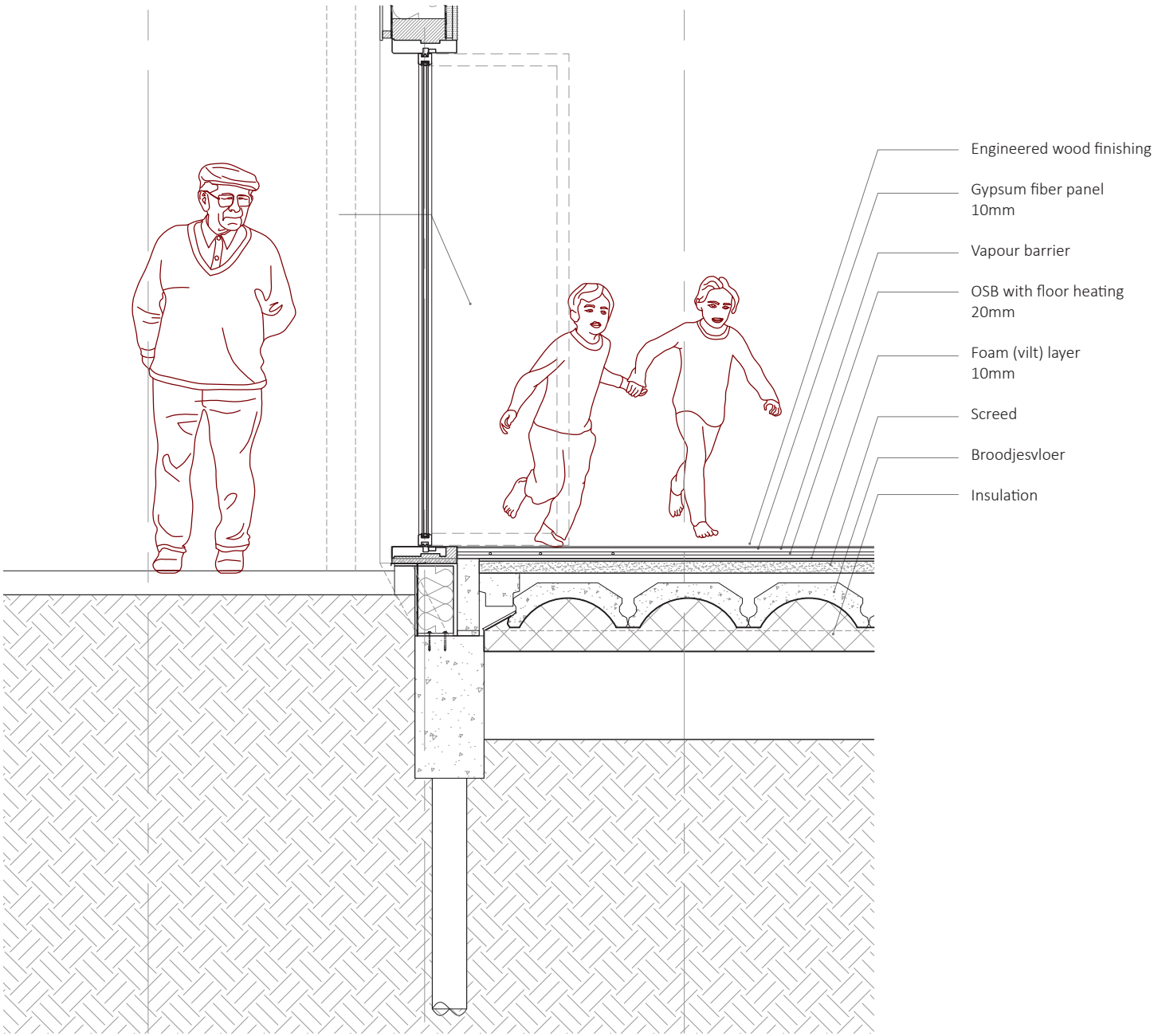
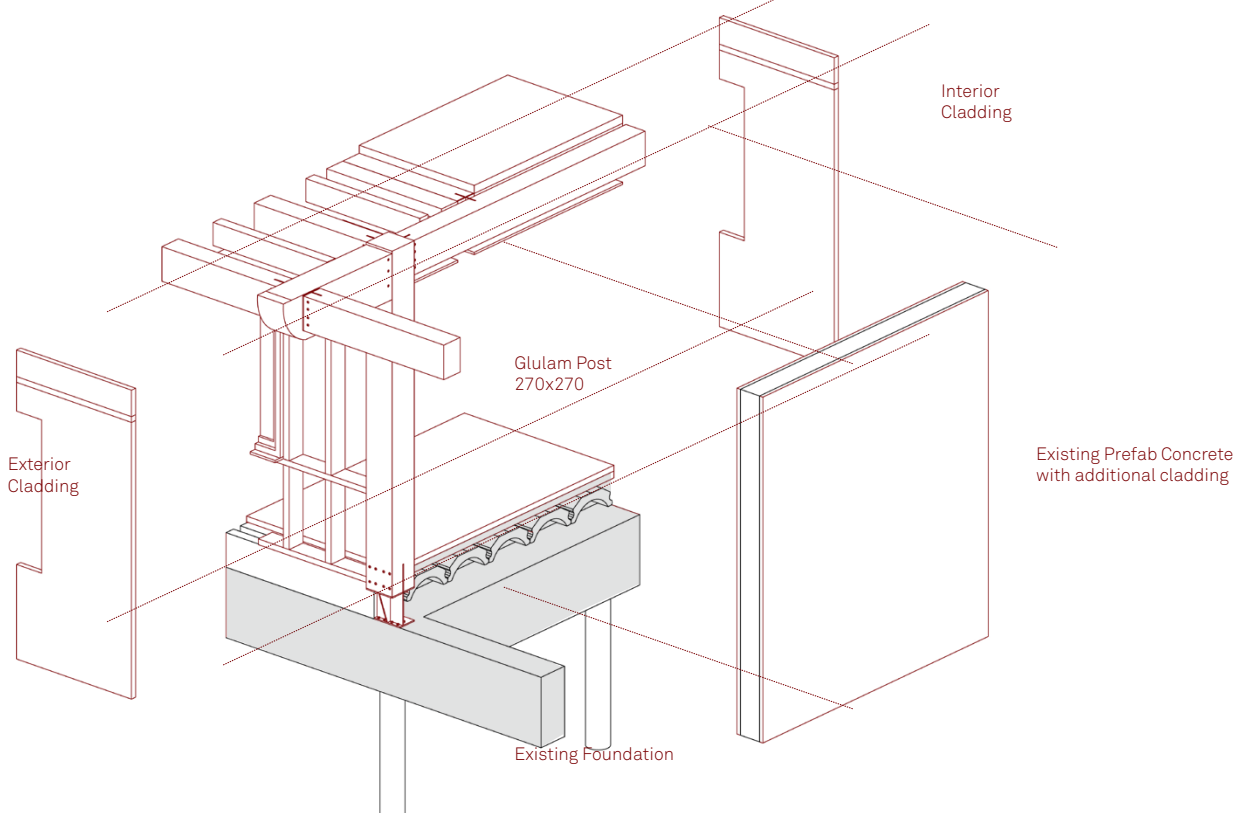
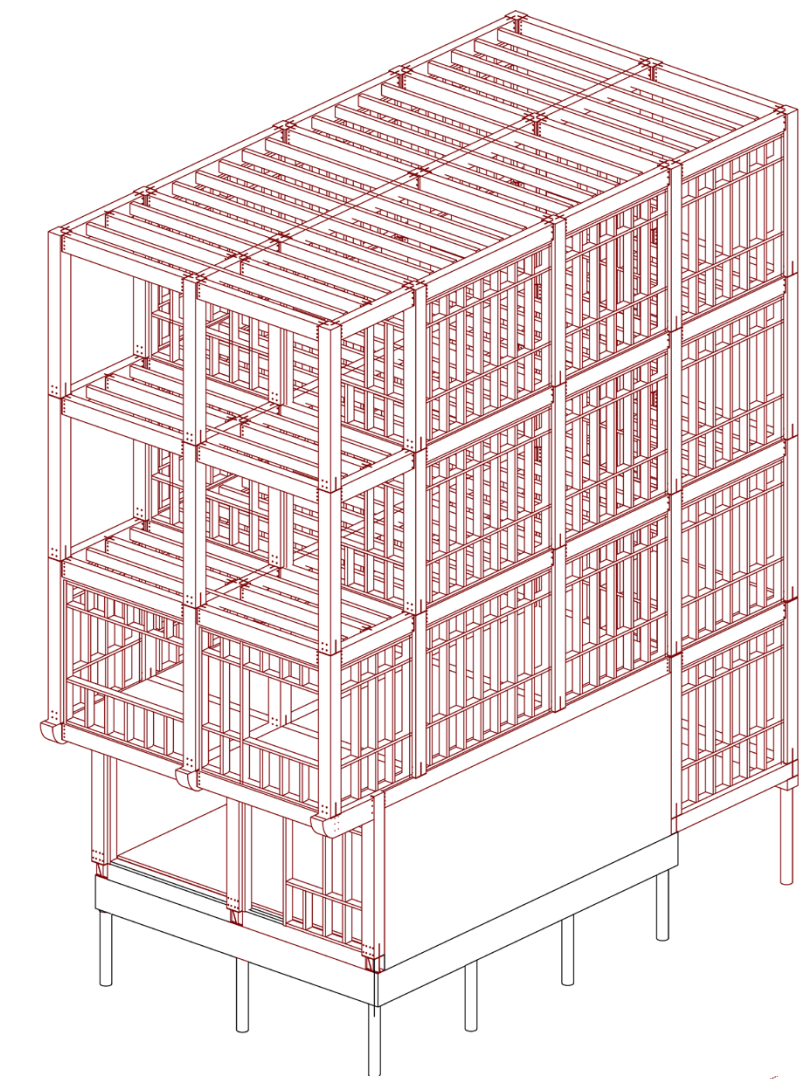


Prospecting the Urban Mines of Amsterdam, (<https://code.waag.org/puma/#52.3096,4.9541,16>)

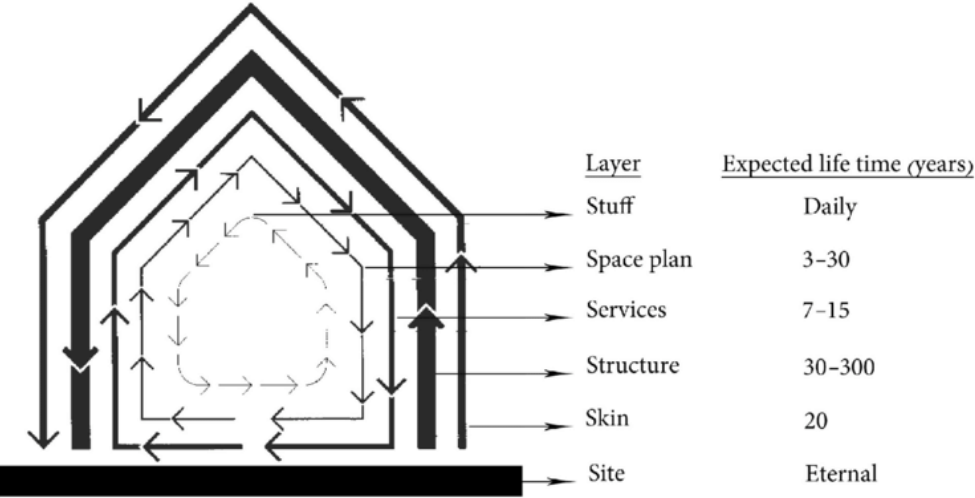
Structural Concept

Timber is selected partially because of its negative carbon footprint, less complex joint, light weight that is essentially for this project's aims involving residents to build their buildings and fitting to the load of existing structure.

The structure consists of post and beam glulam, with panel walls. It is traditional because it is easy to assemble, which is the aim of the project. The structure itself mainly sits on the existing foundation together with a concrete panel.



Freedom Concepts



Brand , Stewart (1994)
Shearing Layers of Change

Freedom concept is follow Brand layer of building, structure will be permanent, but the facade and the function inside will be interchangeable.

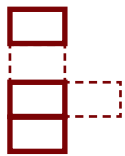
Freedom

In regard to the freedom and higher autonomy of the residents, Amartya Sen implies that higher autonomy, in this case to the local community, could potentially empower them and increase opportunities that would lead to freedom. The proposal to have open buildings that people can arrange and add size based on their need and ability is then translated to have a typical unit that allows them to have different size and scenario and different facade. This requires a certain strategy to place the toilet, kitchen, shaft in the position that allows the resident to do so in certain grids. Each unit also has an open structure at the back to be used in different

ways and functions. The floor to floor is raised from 2.8m to 3m to accommodate various utilities under the floor slab. The ground floor units are made to attract a higher income group with loft type and garden access. This also becomes a dilemma in this project that the existing house is a social house. To determine how big the unit for non-social housing or social-housing is becomes the issue.

Freedom Concepts

3. Building Strategy



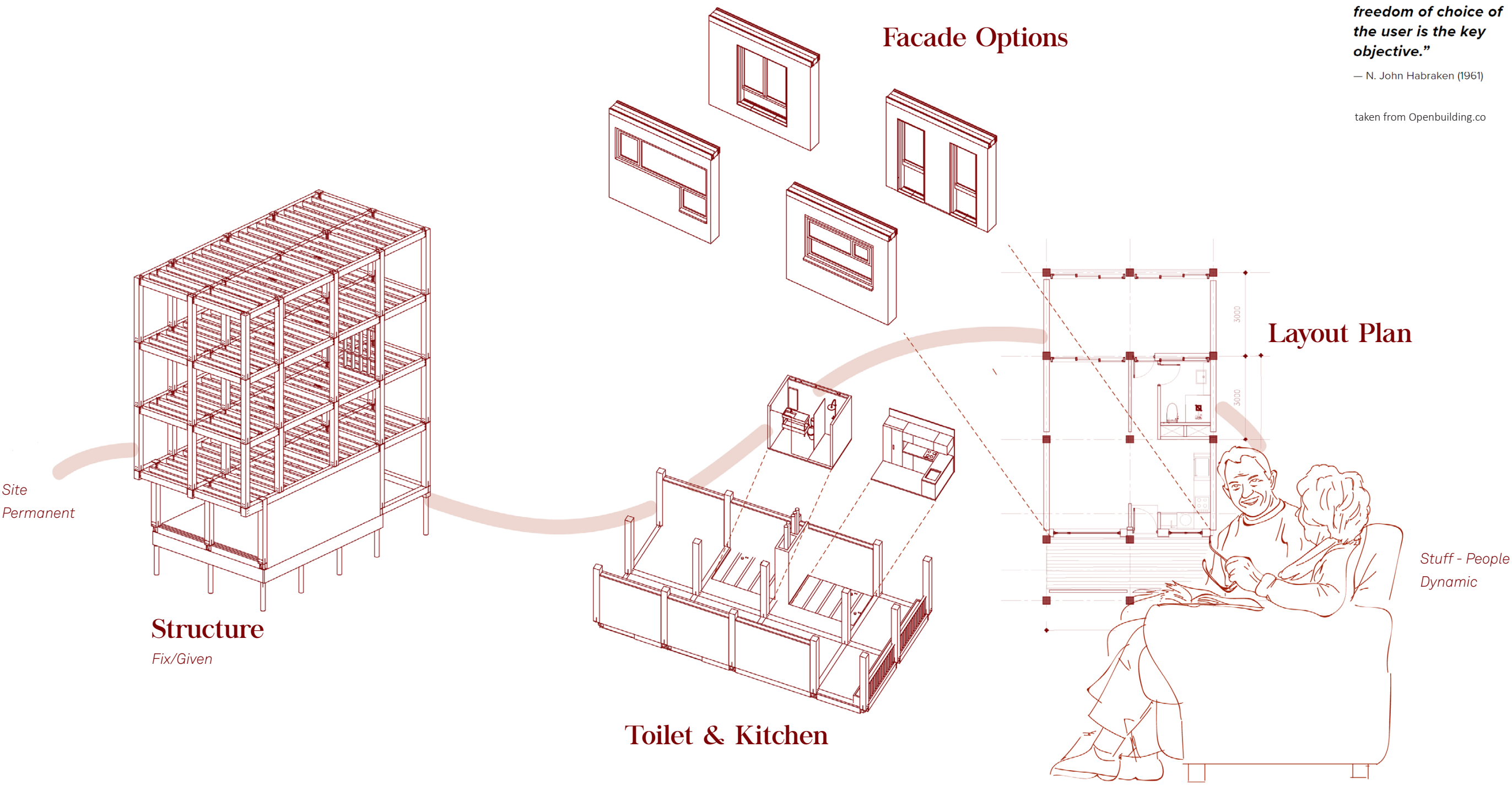
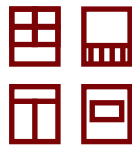
Modular

4. Function Freedom



Combination (Variants & Options)

5. Facade Freedom

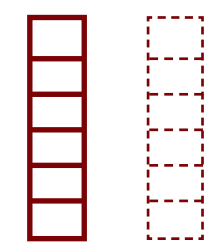


“Supports are part of the public domain and are permanent, while the infill belongs to the individual and is changeable. Public participation and freedom of choice of the user is the key objective.”

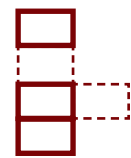
— N. John Habraken (1961)

taken from Openbuilding.co

Some of the Benefits of the Building Intervention



Reuse Partially



Modular



Wood

~+144 houses



Potential of
Densification

Locally Industrial Forest

Save embodied carbon compare to
additional densification concrete and
brick material ~1872 ton*

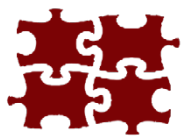
CO₂

Carbon Emission Saving

Facade & Building Component
can be used for other tenants



Circular Economy



Degree of Flexibility

Modular and prefabricated means
less waste material



Light Weight

Easy Assemble

New Load fit to
the existing
foundation

* calculation based on data from
Hegger et al.,2005

Risk Impact Assessment

With its approach it needs to refer back to its value and risk impact from it.
These exercise shows that some of the attributes will be affected by the approach and if there is negative impact it needs to be mitigated.
For example the car free environment might be affected due to continuous construction, so it need to have dedicated area and time slot.

Current Value and Attributes in Hoptille Mid-rise

Values	Attributes					
	Ecological	Social	Economic	Aesthetical	Historical	Use Value
Attributes	Car-Free Environment ○○○ ●●○	Community Activities ○○○ ●○○	Social Housing ○○○ ●●●	Building Scale-Human Scale ○○○ ●●○	One of the first public participation housing program ○○○ ●○○	Dwellings ○○○ ●●●
	Lack Of Quality green ○○● ○○○	Intimate & Quiet Environment ○○○ ●●○	Low Income - sense of ownership ○●● ○○○	Repetitive architecture ○○○●○○○	Anti-Bijlmer ○○○ ●●○	Closeness to facilities ○○○ ●●○
	Lack of Maintenance ○●● ○○○	Social Housing ○○○ ●●○	Low Density ○○● ○○○			Separation Function (mono-function) ○○● ○○○
	Lack of Energy freedom ○●● ○○○	Multicultural ○○○ ●○○	Lack of adequate units ○●● ○○○			Lack of building quality ○●● ○○○
		One of the first public participation housing program ○○○ ●○○	High utility cost ○●● ○○○			Lack of space plan quality ○○● ○○○
		Presence of Communal Garden ○○○ ●●○				non-universal design ○●● ○○○
		Unsafety Feeling ○●● ○○○				

Strategy/Intervention

Adaptability

Social Capital

1. Social Bonds

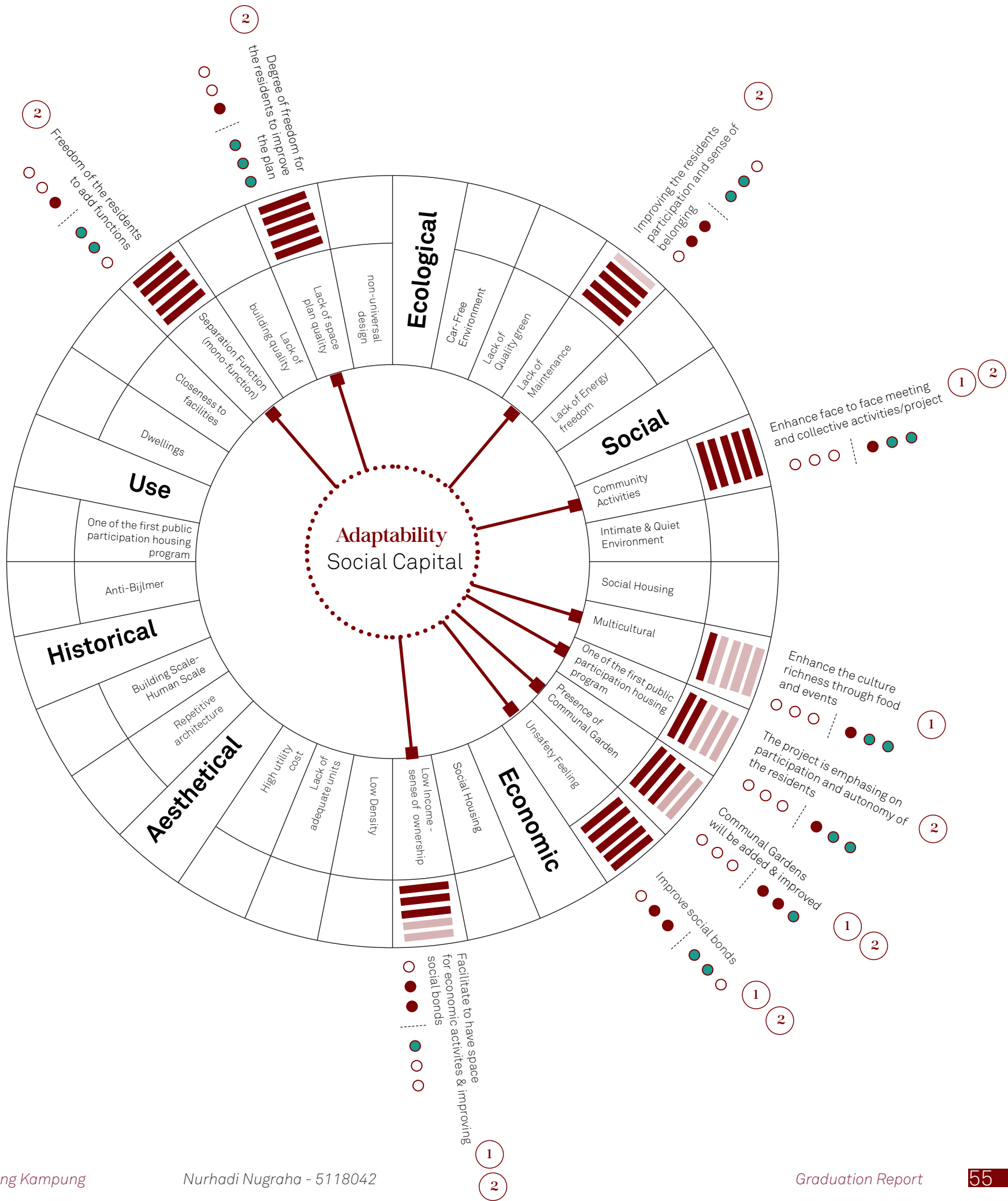
Social bonds. by knowing the neighbours and **enhance the face to face meeting**

Initiate different **collective meeting and action**

2. Autonomy - Degree of Freedom

Strengthening the **role of resident in decision making and planning of Hoptille**. It also create the sense of belonging

Make use of Hoptille Resident Association as a **bridge to the stakeholder**, more **responsibility to the environment**.

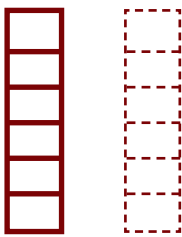


Strategy/Intervention

Transformability

Urban-Building Structure

1. Building Block Strategy



Reuse Partially
Reuse partially existing urban structure, foundation, and structure.

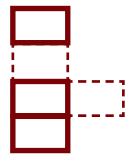
Growth and Change
Allow growth and changing overtime

2. Building Height



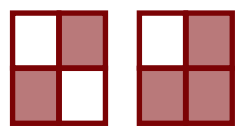
Mid-Rise (4-5 storeys)
Response to the context of mid-rise neighbourhood and anti-Bijlmer

3. Building Strategy



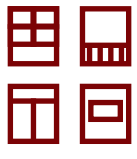
Modular
Modular structure aims balance the standardization, customization, and transformation.

4. Function Freedom



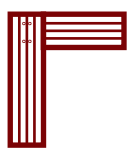
Combination (Variants & Options)
Aiming the freedom for residents to build and custom their house.

5. Facade Freedom

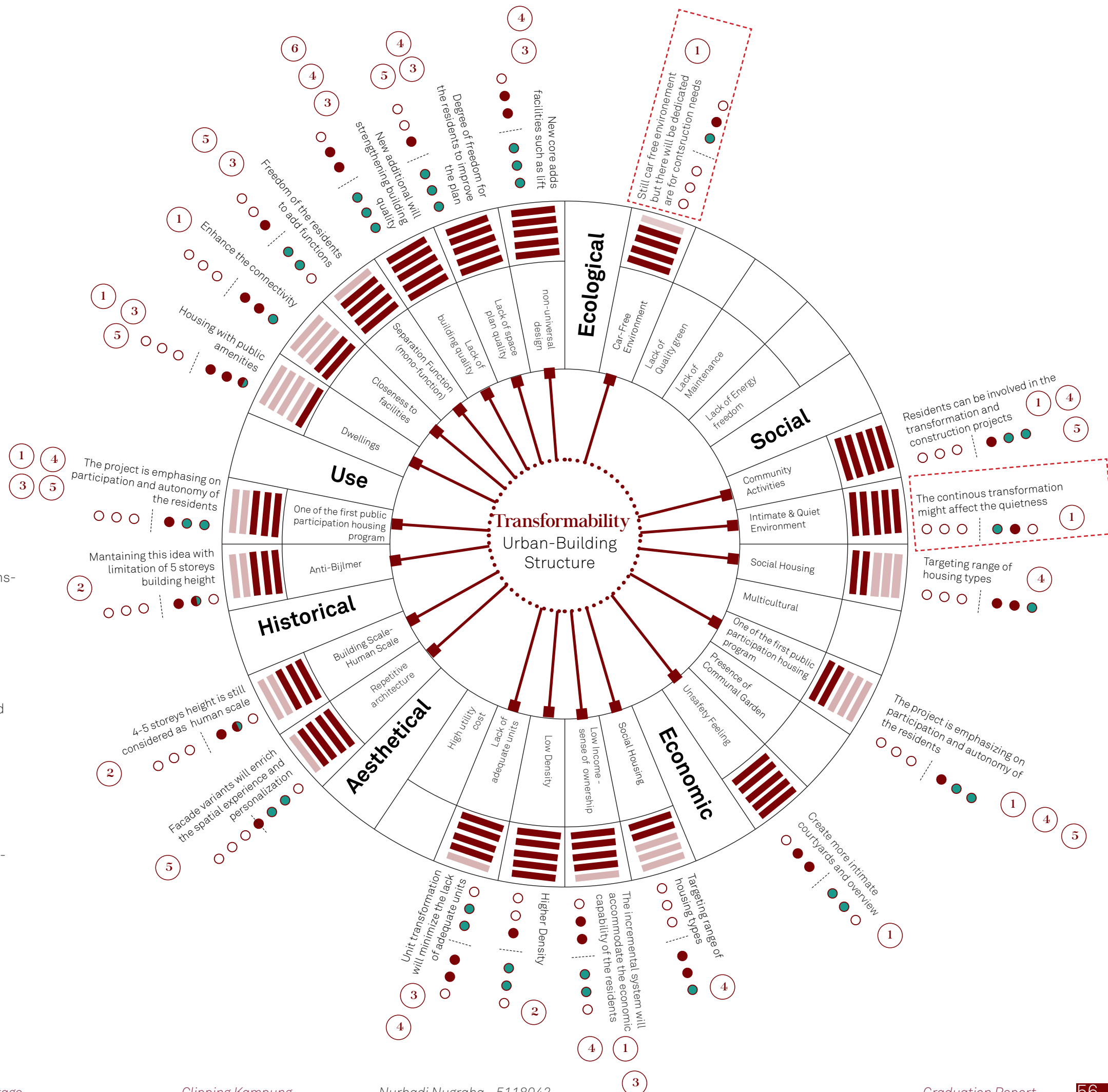


Combination (Variants & Options)
Create balance between function-performance, freedom-harmonization

6. Building Material



Wood
Aiming the sustainability material, light weight, and easy to (dis)mantle.



Strategy/Intervention

Ecological

Urban-Building Structure

1. Enhance Biodiversity

To maximize the vegetation structure space. (S,M,L)

Water landscape

2. Sustainable Building Material & Energy

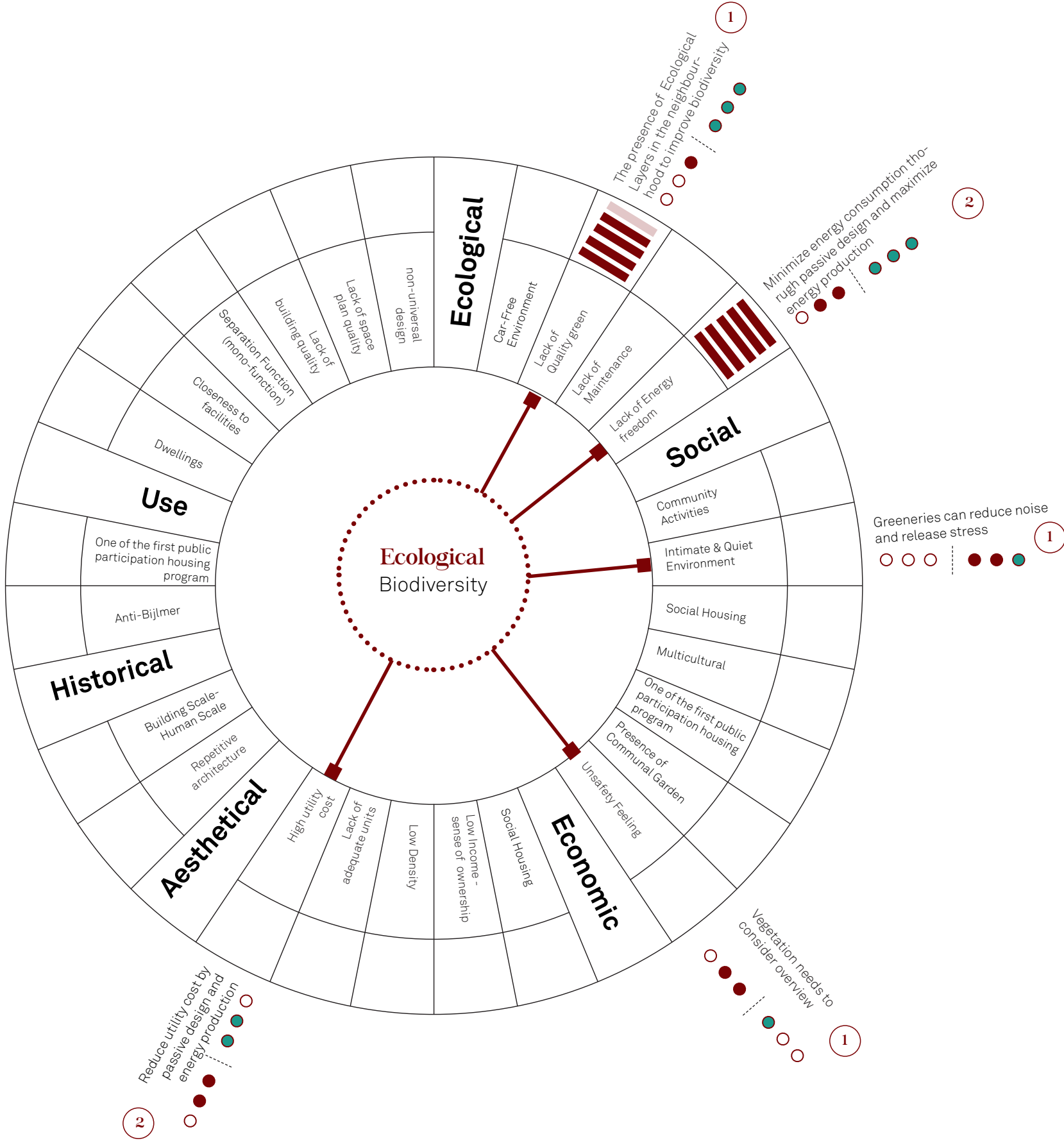
Wood as Building Material

Meet the energy requirement (passive & active)

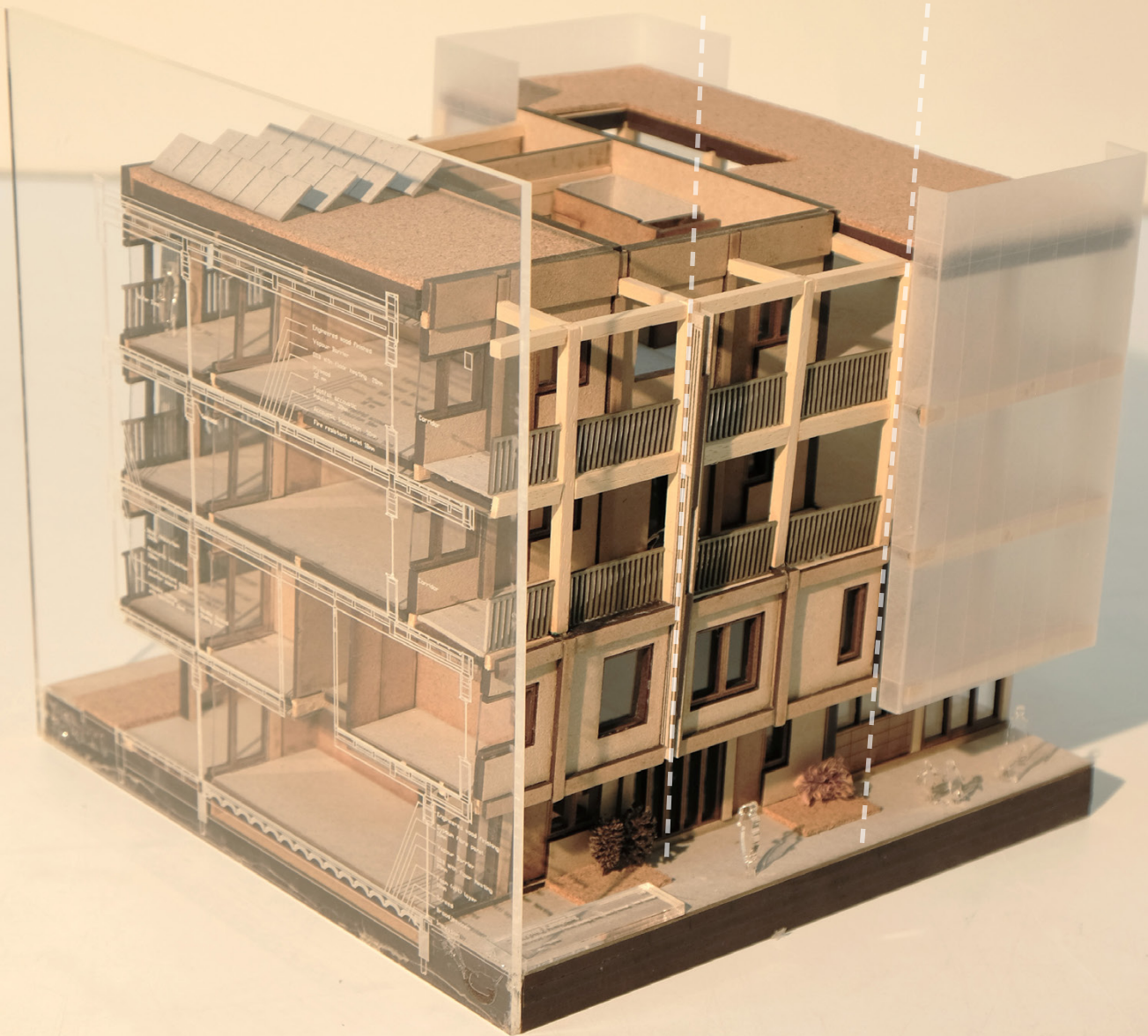
3. Reuse - Recycle

Reuse partially existing structure, and building component

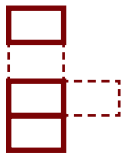
Recycle existing building material



Building Concept

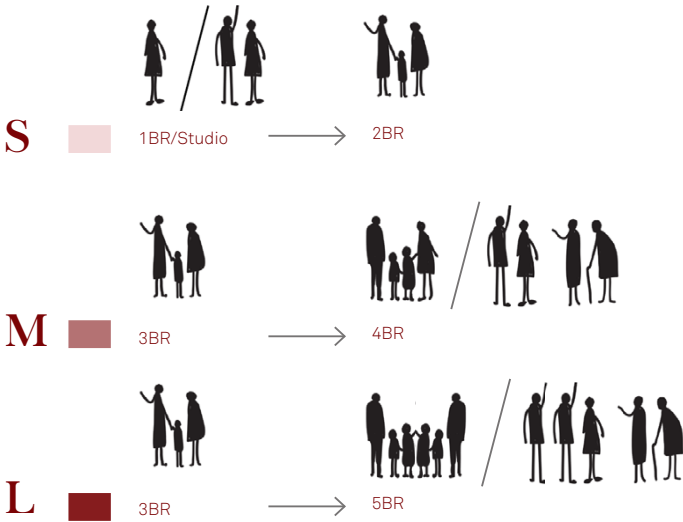
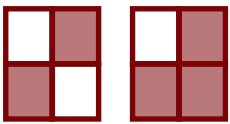


3. Building Strategy

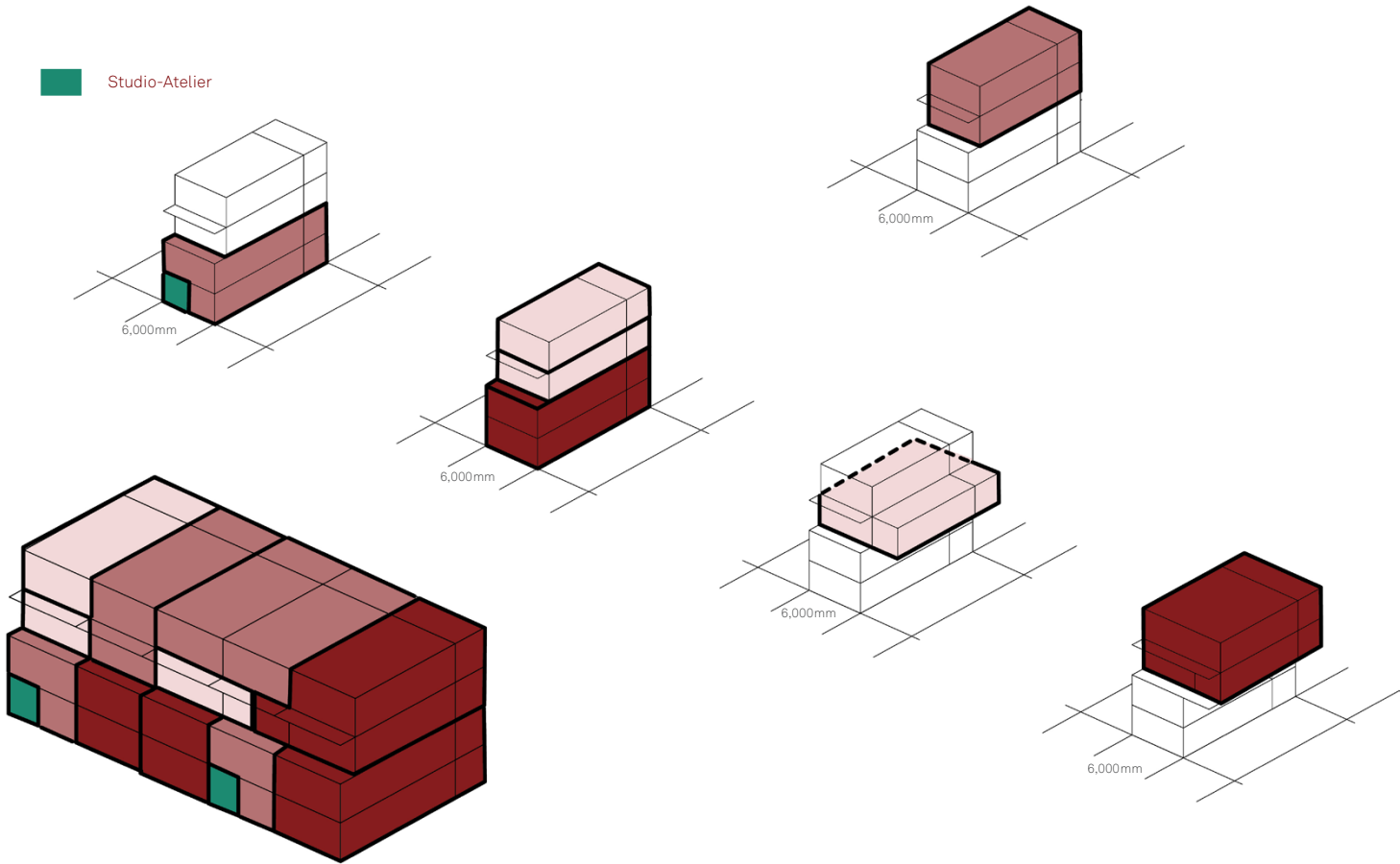


Modular

4. Function Freedom



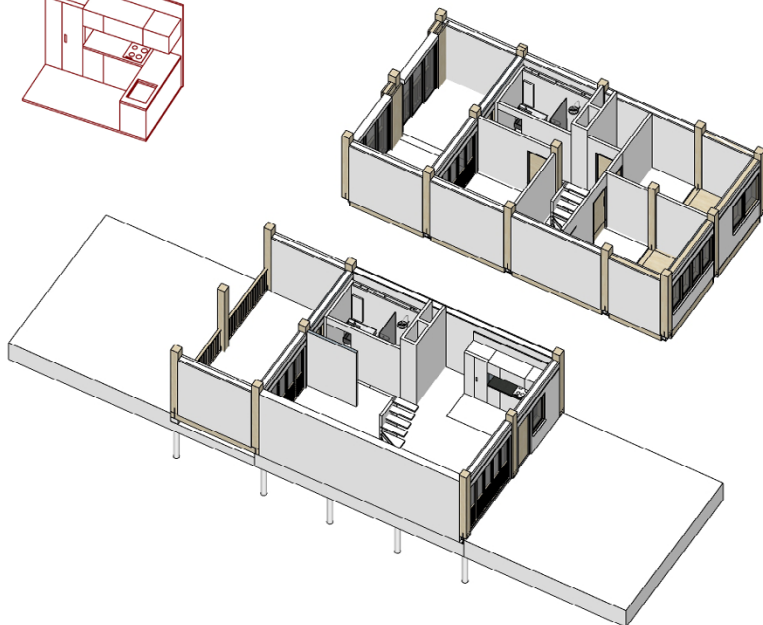
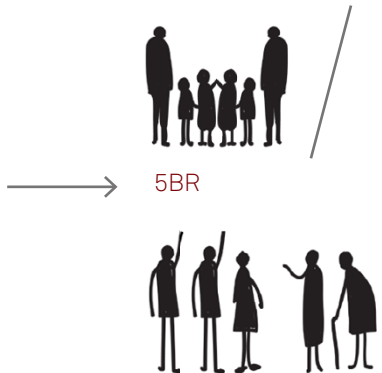
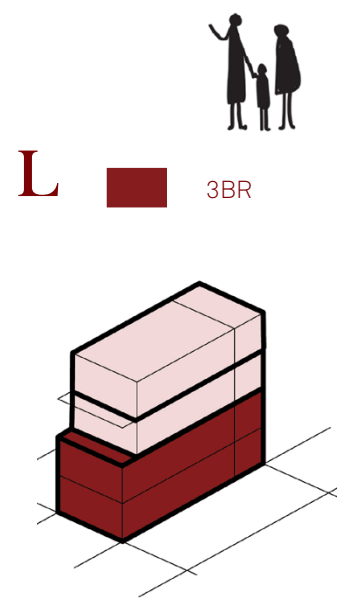
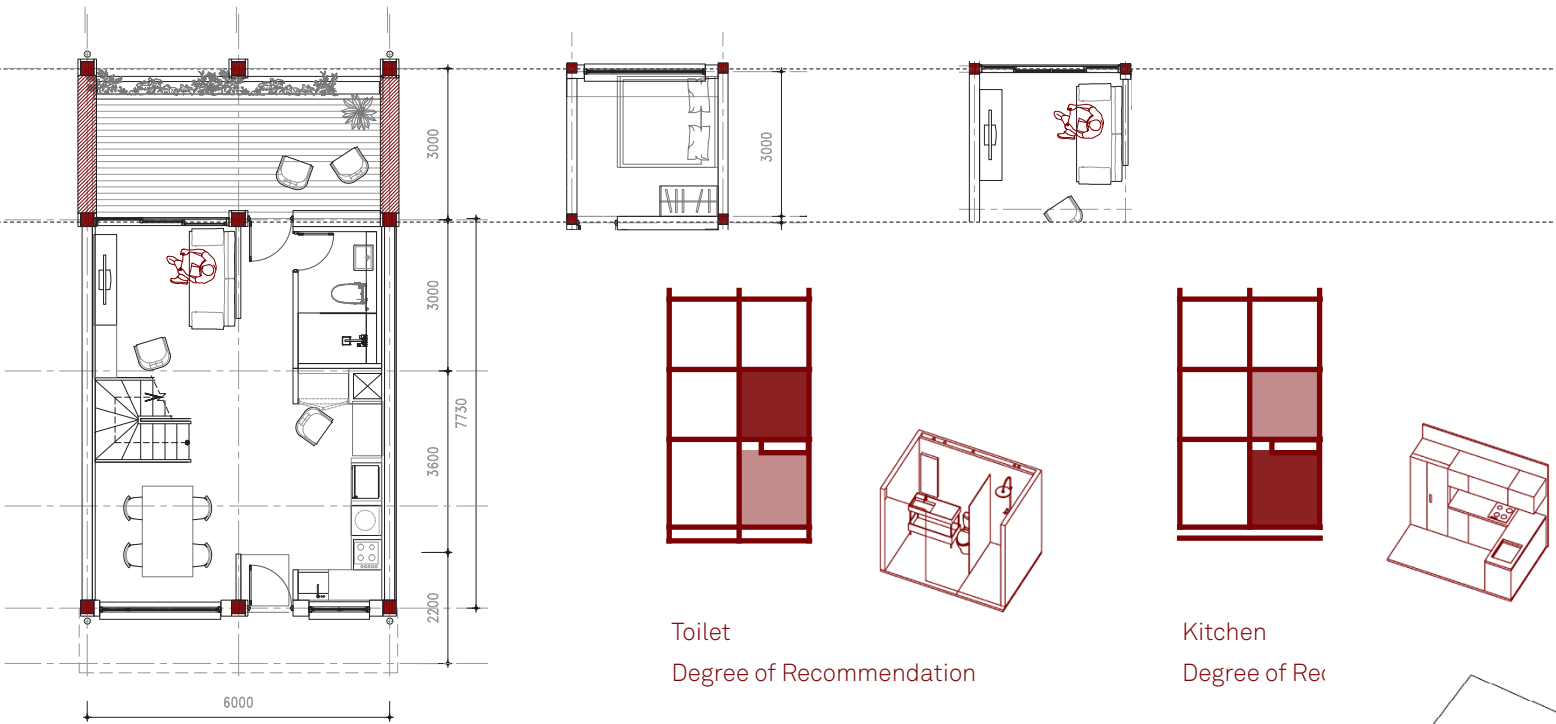
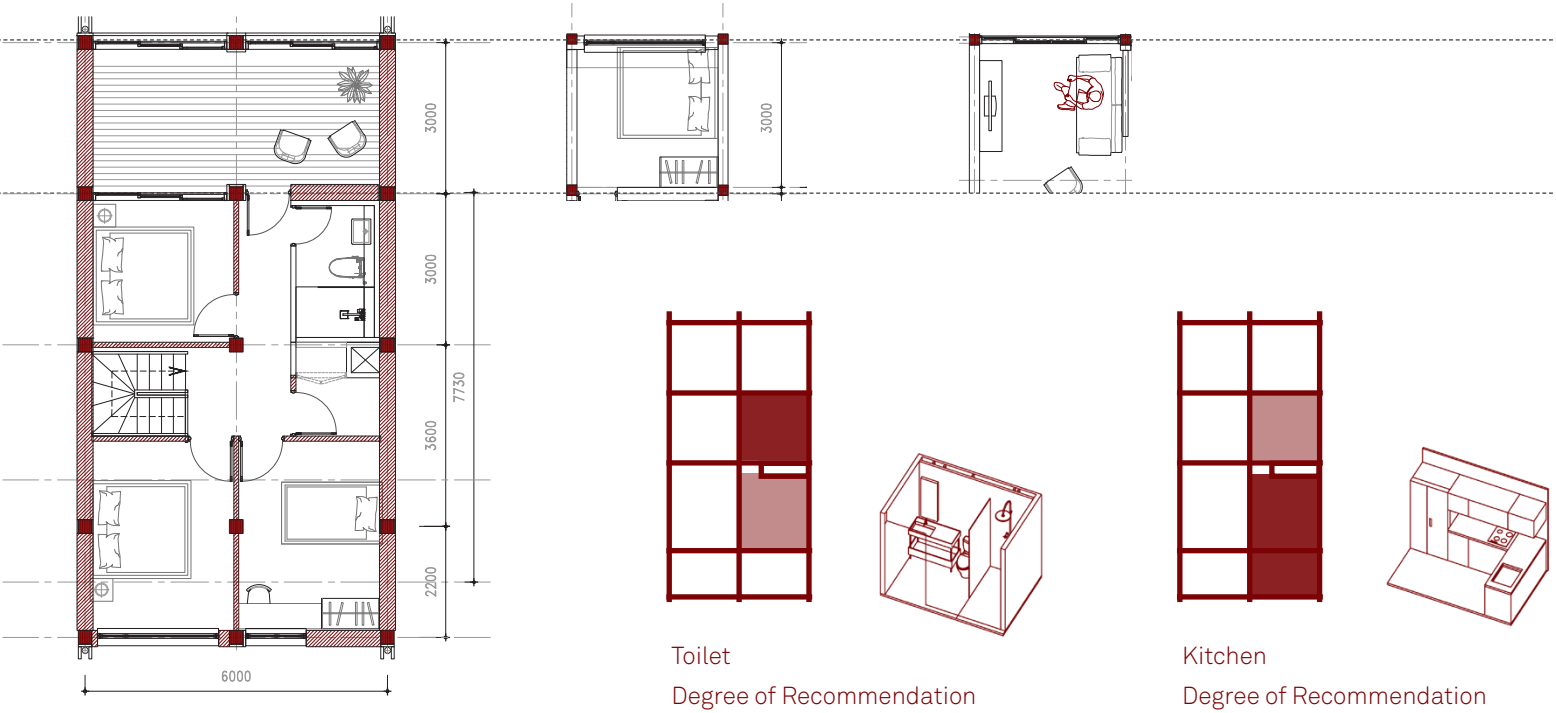
This freedom function will allow to future up-grade. The initial units will be recognized as SML which will address different group.



Type Loft - 01

L

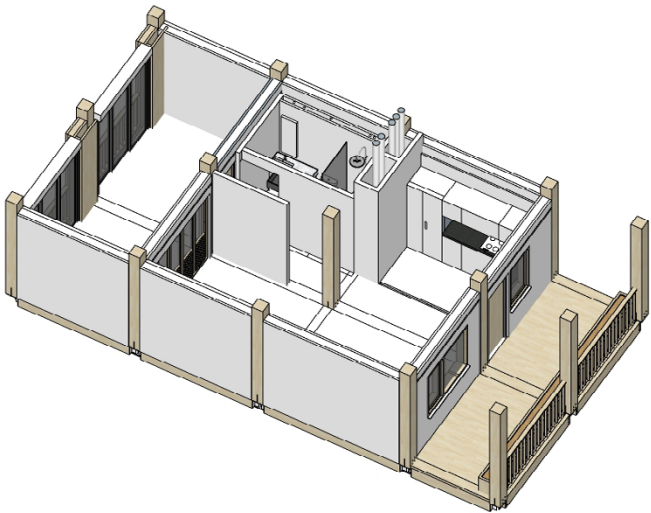
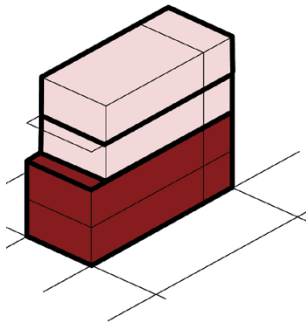
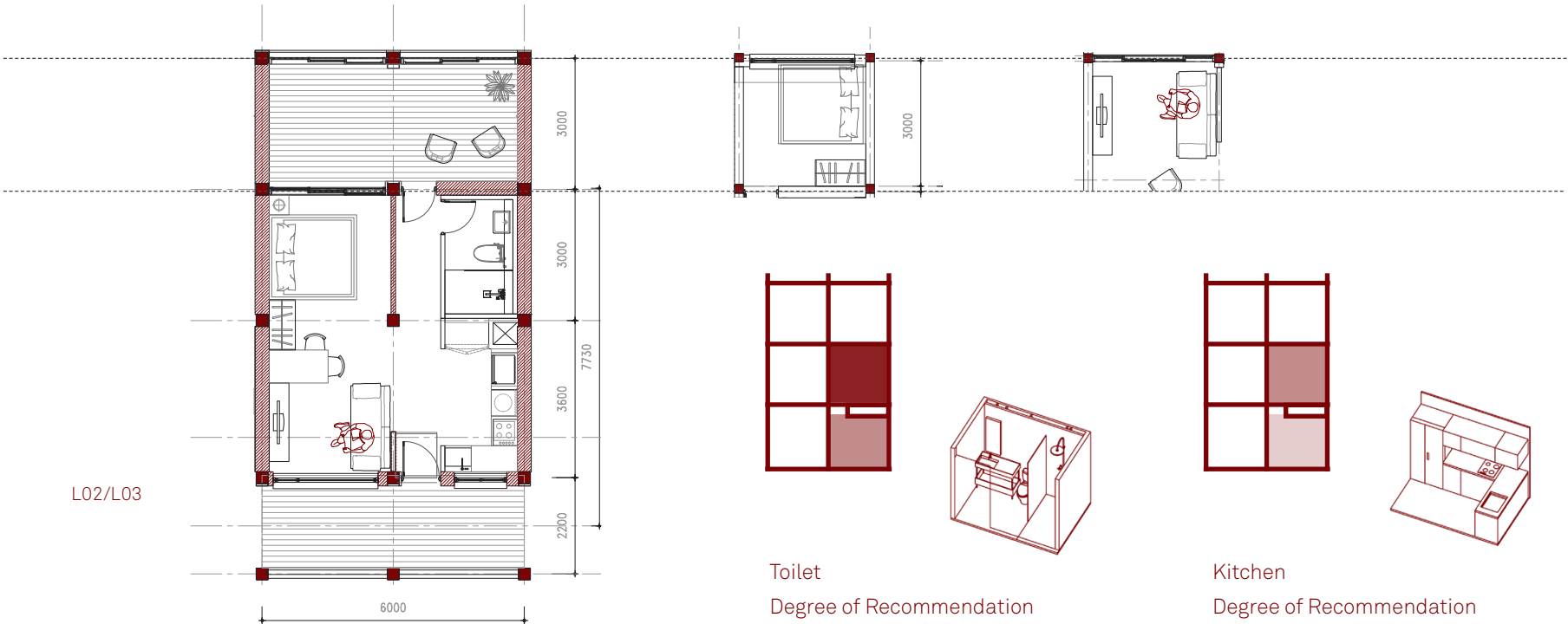
Level GF& L01
Area 140 sqm
Typical 3BR
Potential 5BR
Private Garden



Type S-02

S

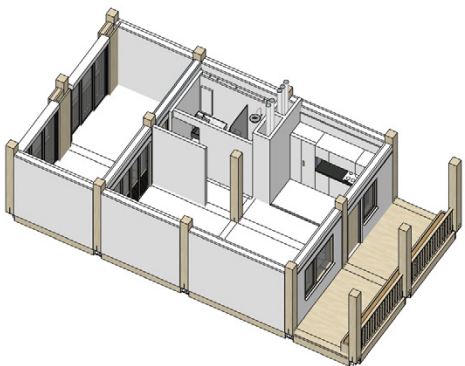
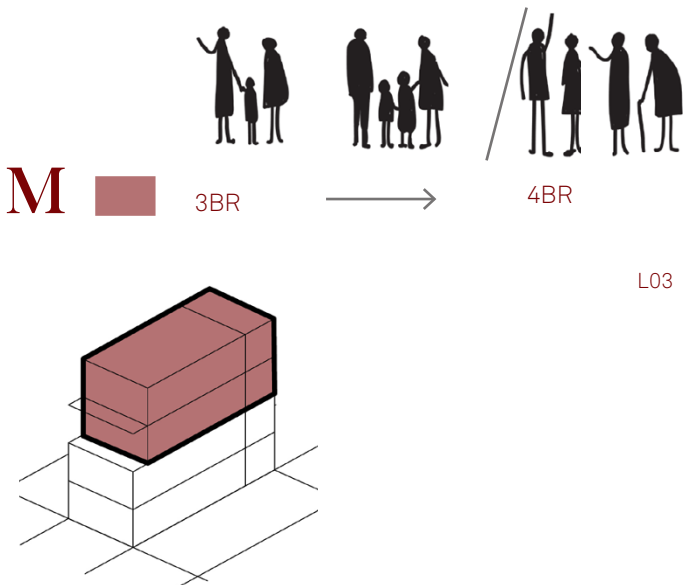
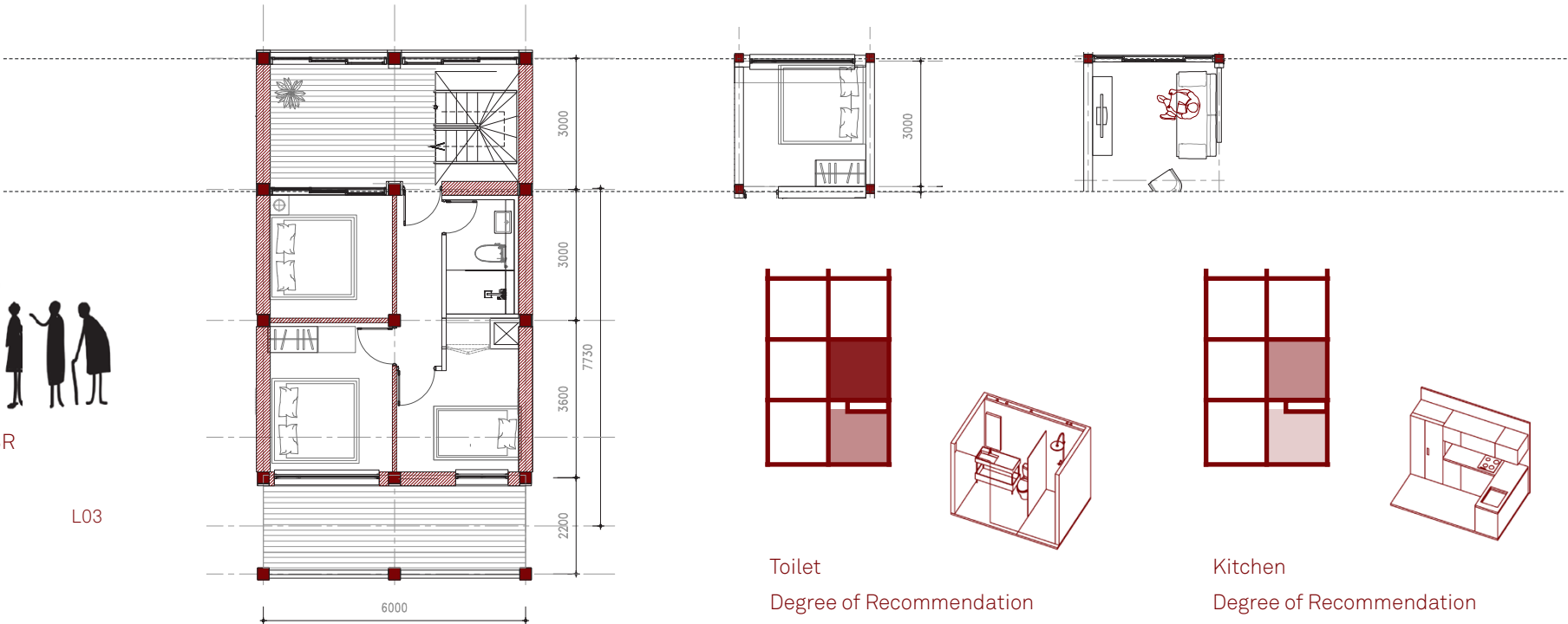
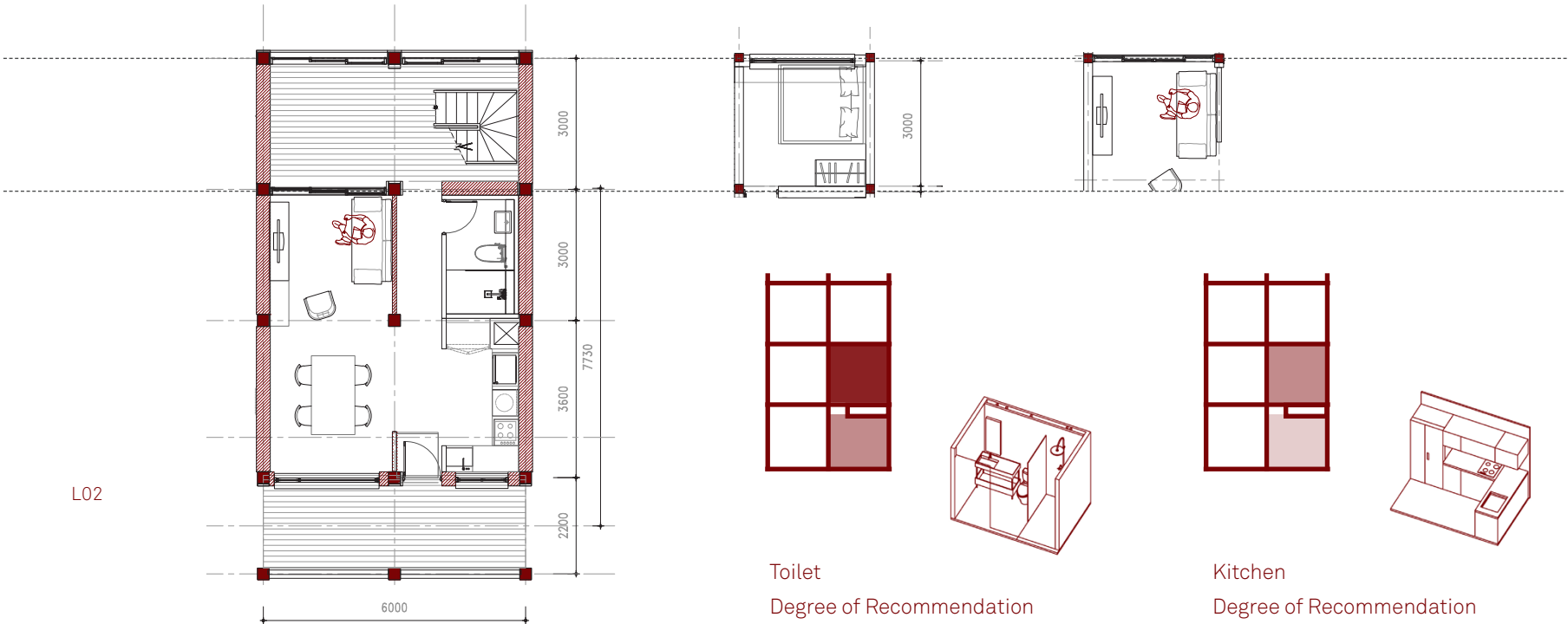
Level L02/L03
Area 60 sqm
Typical 1BR/Studio
Potential 2BR



Type M-02-Loft

M

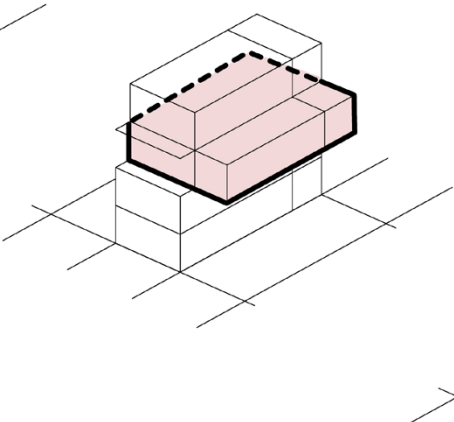
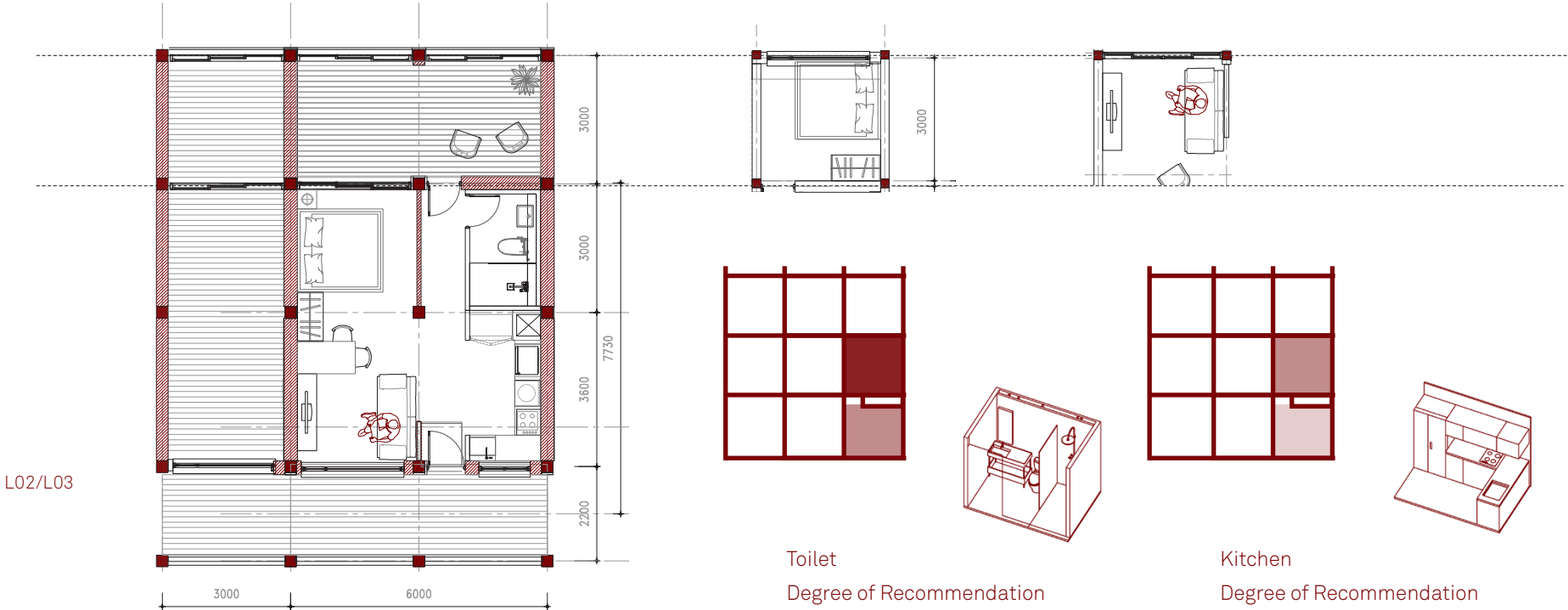
Level	L02 & L03
Area	120 sqm
Typical	3BR
Potential	4BR



Type M-02-H

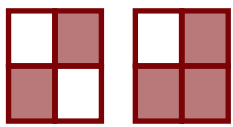
M

Level	L02 & L03
Area	88 sqm
Typical	1BR
Potential	3BR

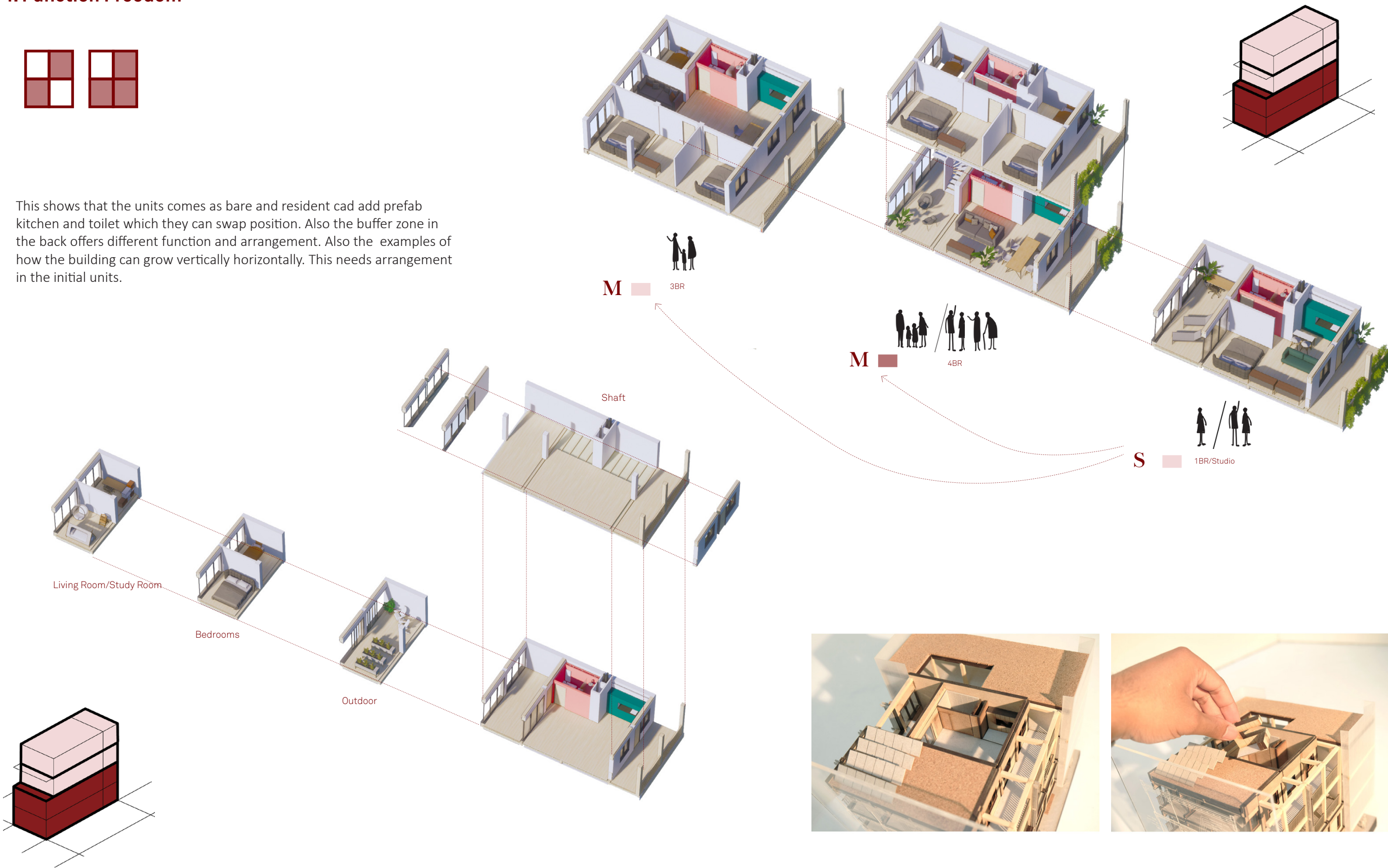


Building Concept

4. Function Freedom

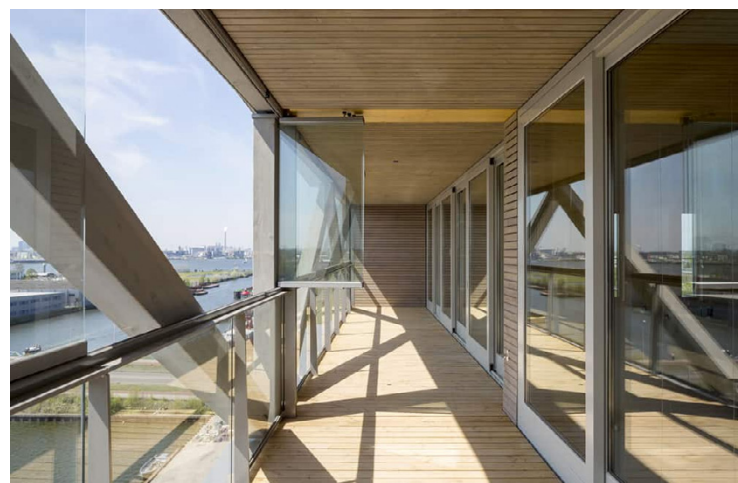


This shows that the units comes as bare and resident cad add prefab kitchen and toilet which they can swap position. Also the buffer zone in the back offers different function and arrangement. Also the examples of how the building can grow vertically horizontally. This needs arrangement in the initial units.



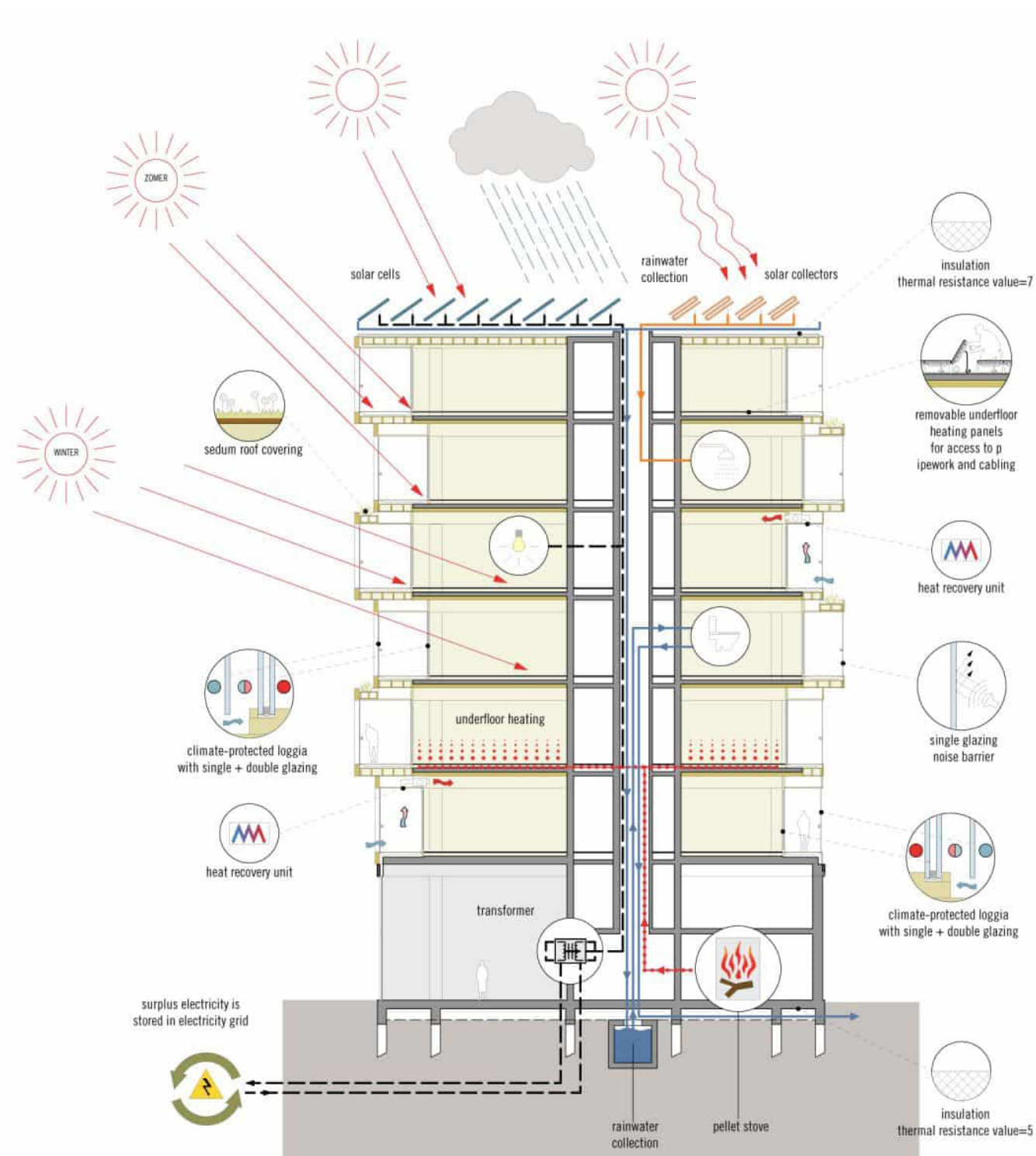
Study Case ; Patch 22, Amsterdam

by : Lemniskade Projects



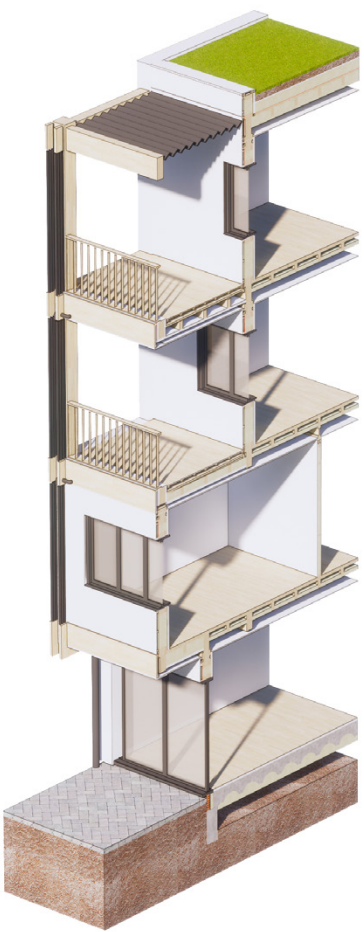
This is the case study for the Open Building strategy with timber structure and the buffer zone in the building that acts as a climate adaptation in the unit. Moreover this buffer zone offers freedom of function to the residents.

(<http://patch22.nl/>)

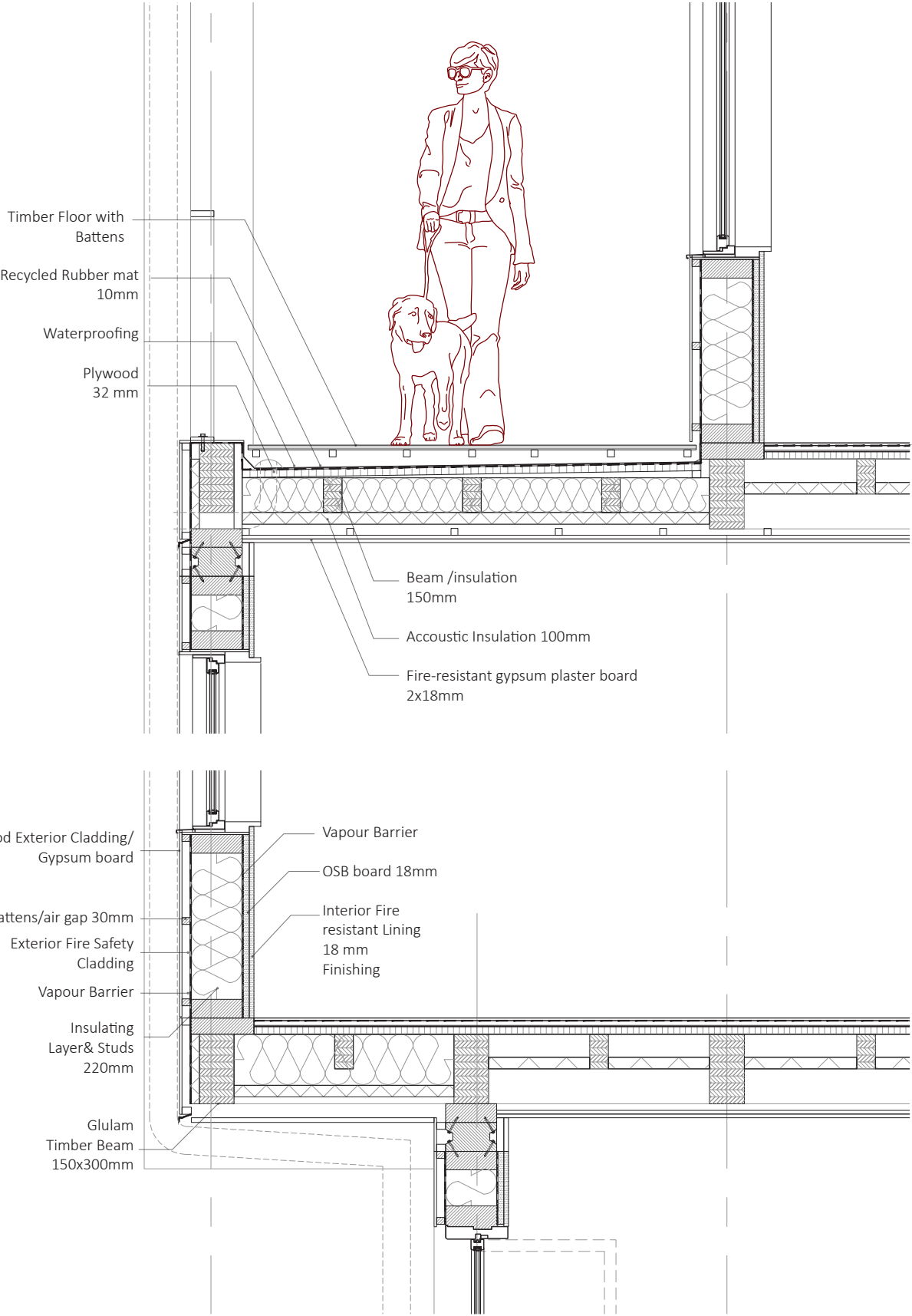


Building Concept

5. Facade Freedom

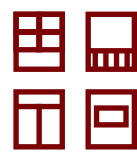


The from facade is meant to easily dismantle due to its proposed system joint. The corridor are provided in 2nd and 3rd floor. Which the access is from controlled core.



Building Concept

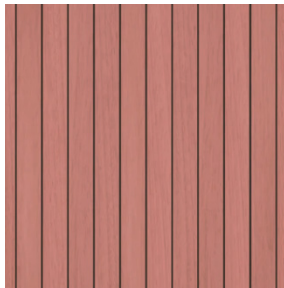
5. Facade Freedom



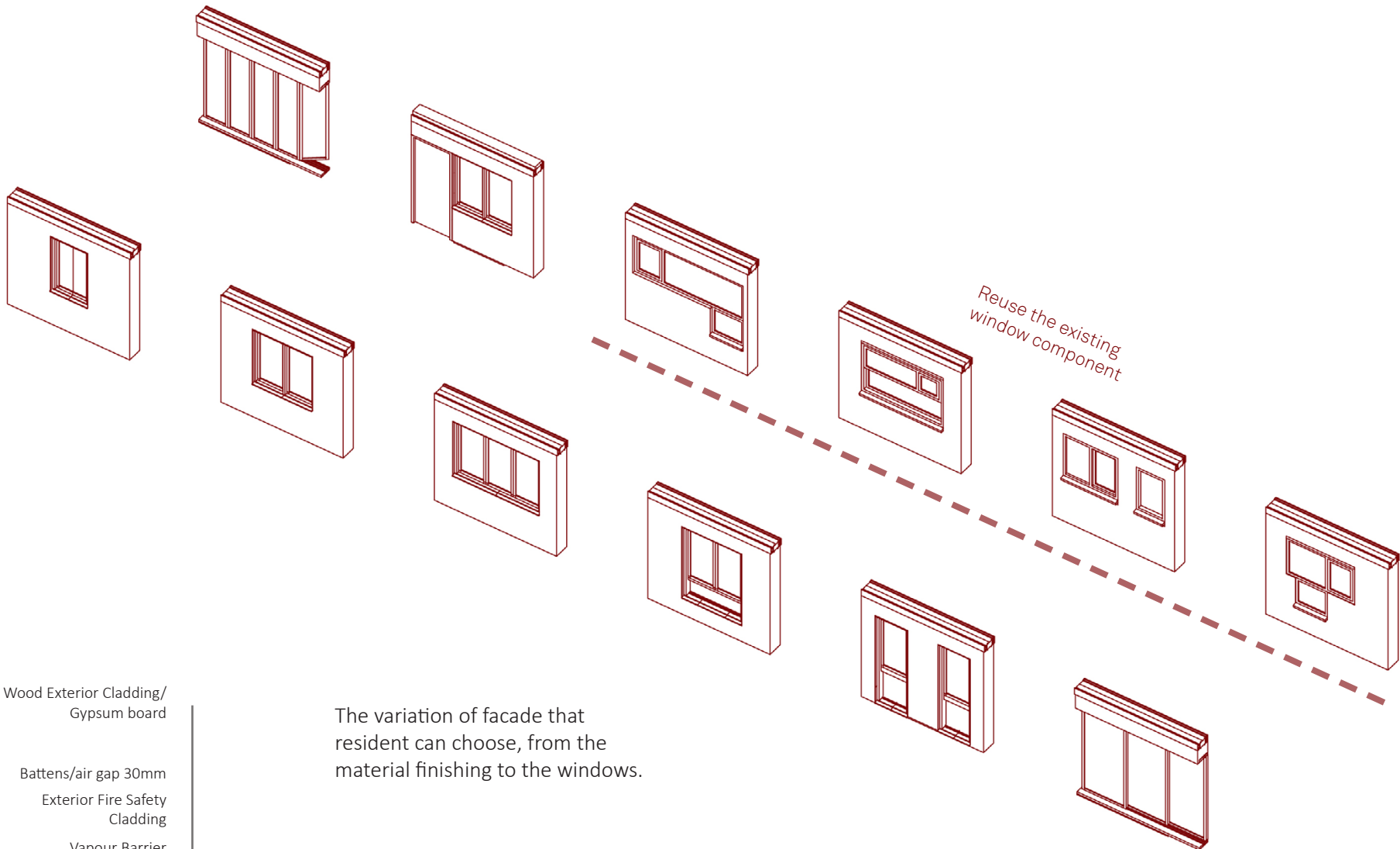
Texture & Colour



Natural Colour
Wood Cladding



Red Coloured
Wood Cladding



Wood Exterior Cladding/
Gypsum board

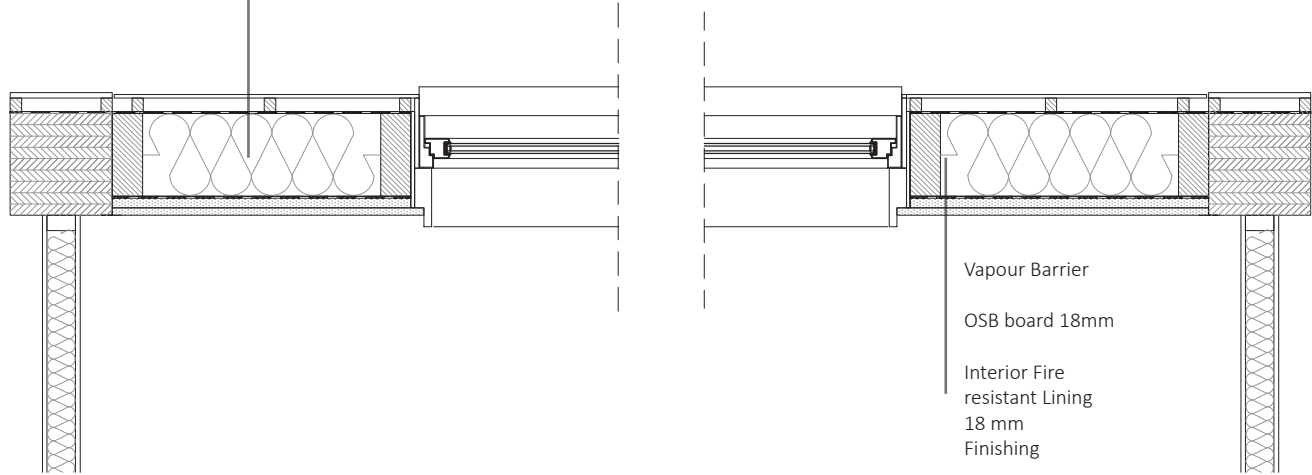
Battens/air gap 30mm

Exterior Fire Safety
Cladding

Vapour Barrier

Insulating
Layer& Studs
220mm

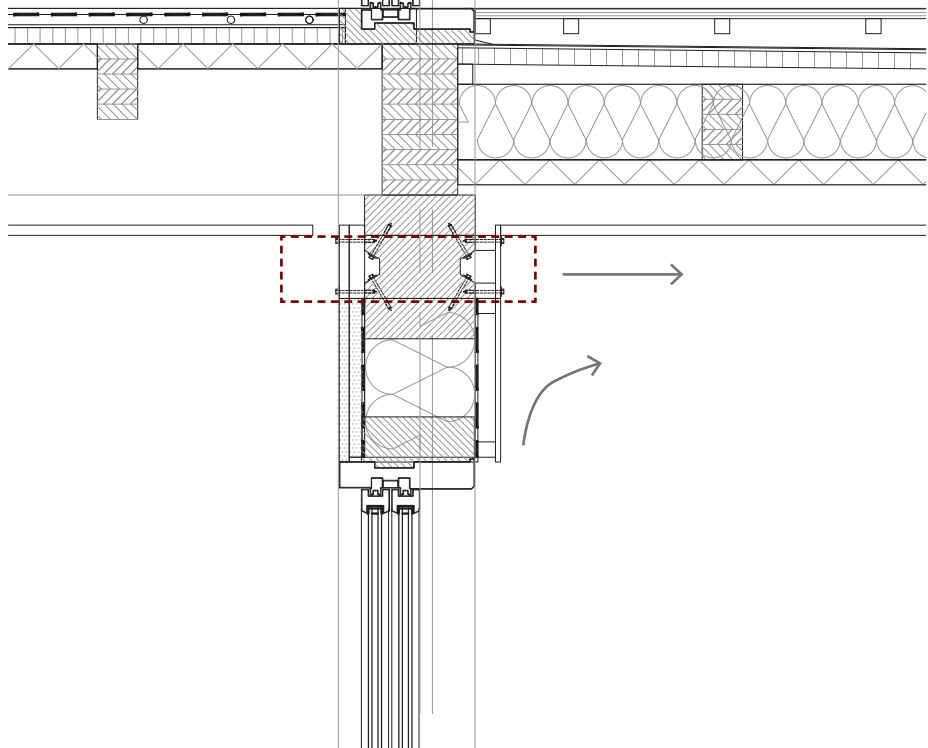
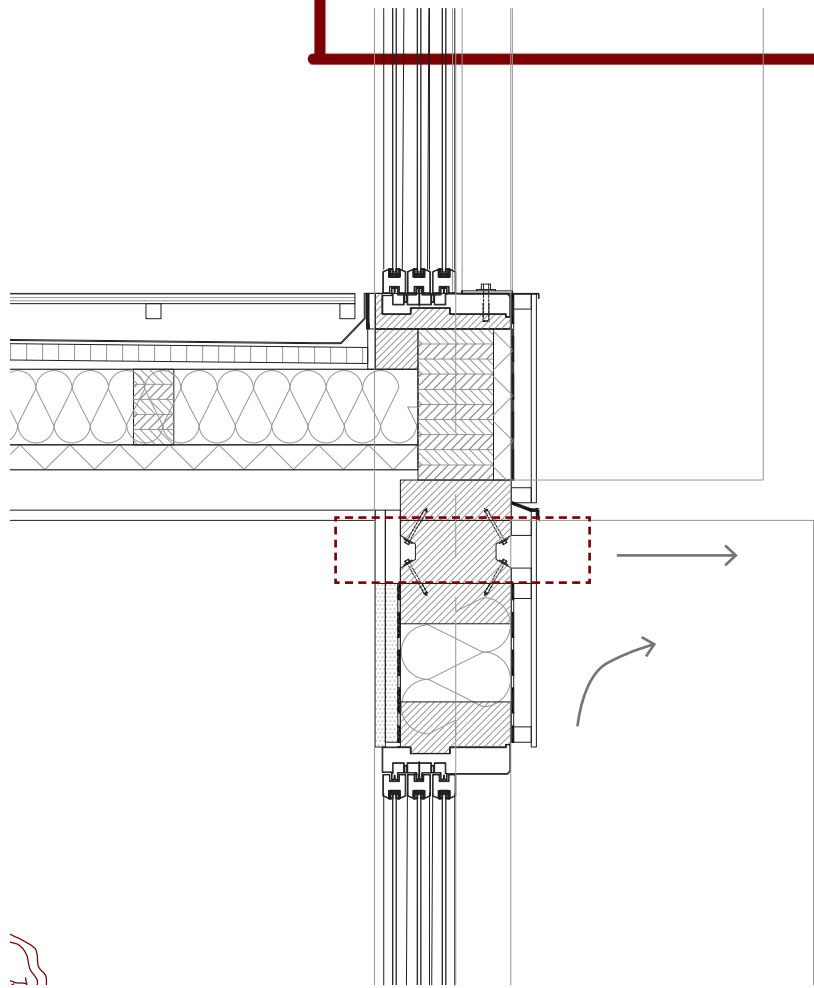
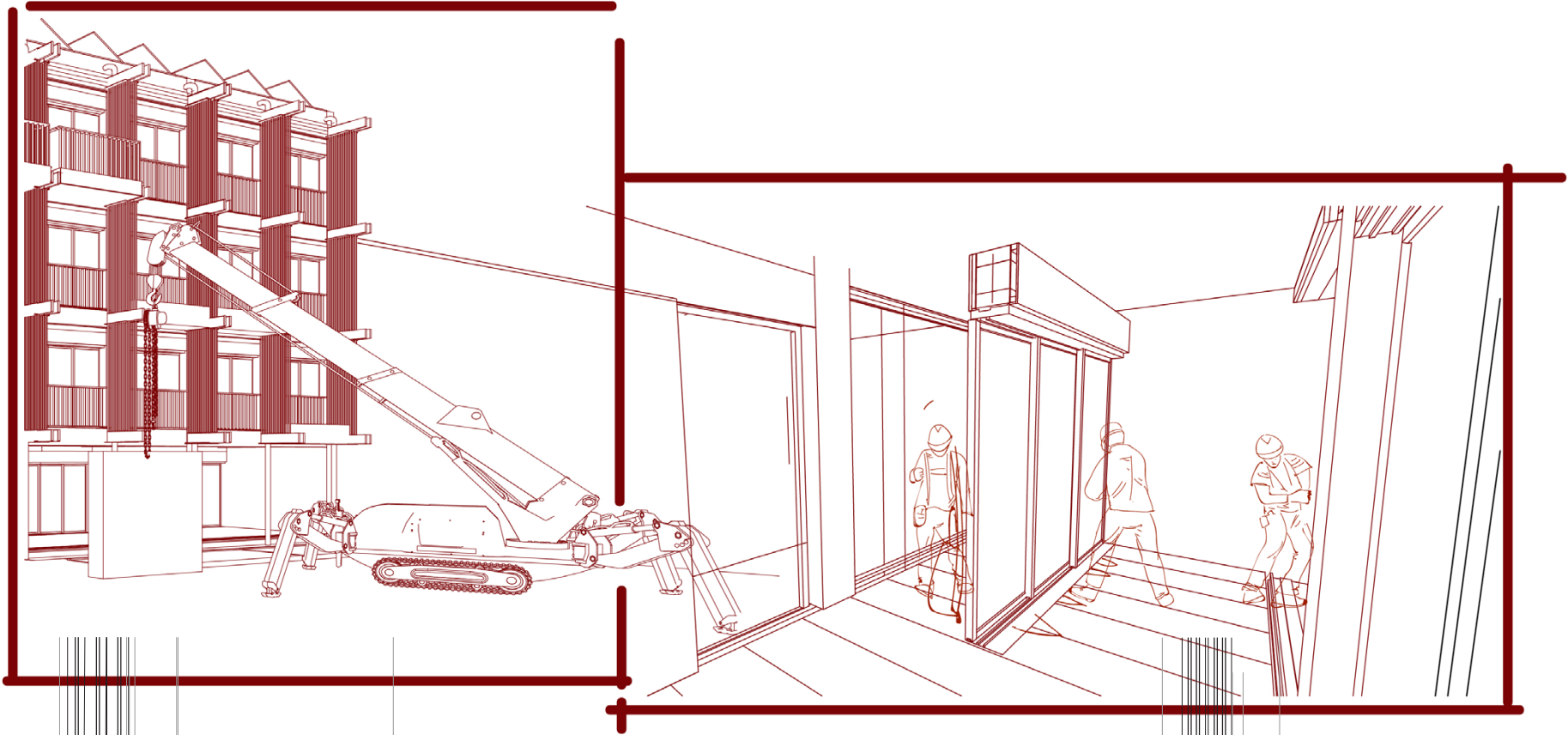
The variation of facade that
resident can choose, from the
material finishing to the windows.



How to (De)Mounted

The schemes how to dismantle the wall with its lock beam above the wall. It need to be taken out before the wall can be dismantled. These need mini crane to lift the prefab wall to the unit or vice versa.

The consideration this system is used is for easy construction which residents have possibility to do it on their own.

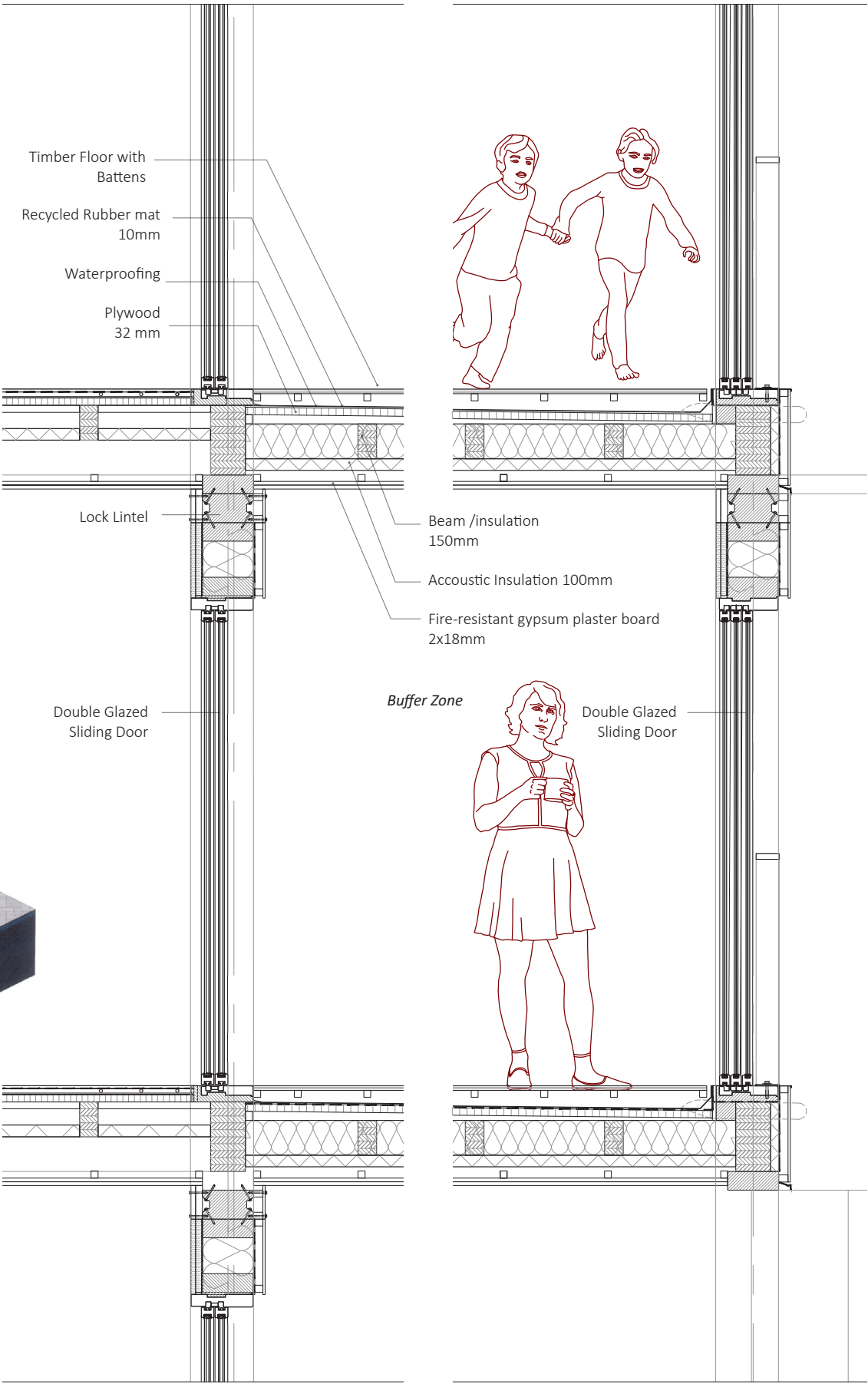


Building Concept

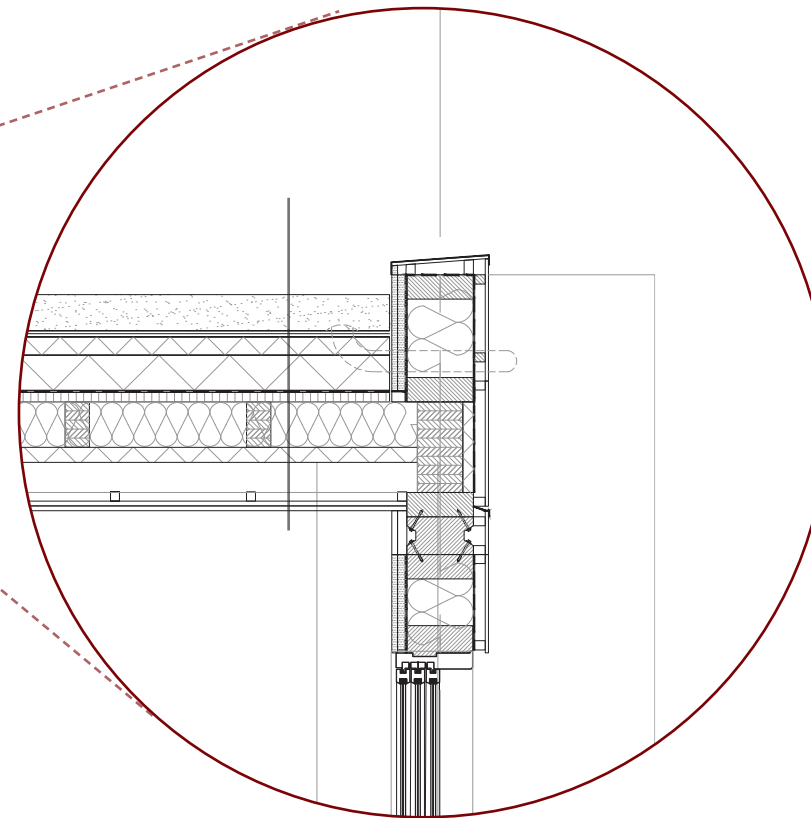
5. Facade Freedom



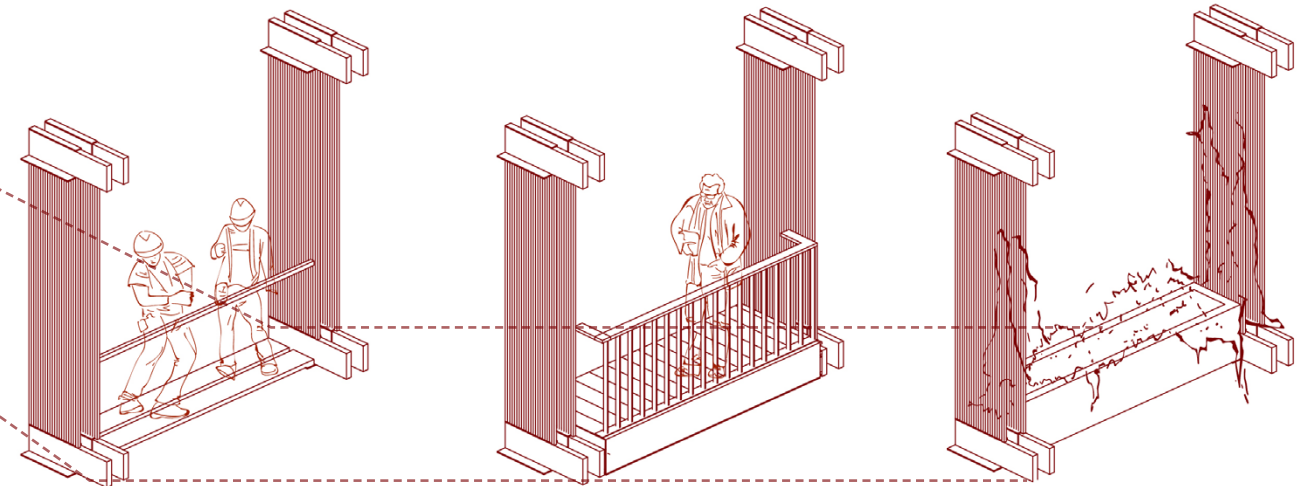
The back facade showing its buffer zone that act as future expansion also the climate adaptation. The vertical element act to mimic vertical element in Hoptille the mid-rise.



Facade Options



- Extensively planted green roof
120mm
- Fleece protective layer
10mm
- Two-ply roof membrane
10mm
- Gradient insulation
60mm
- Thermal Insulation
140mm
- Vapour barrier
- Construction phase sealing
3.5mm
- Plywood
32mm
- Beam /insulation
150mm
- Acoustic Insulation 100mm
- Fire-resistant gypsum plaster board
2x18mm



Temporary Scaffolding

Balcony

Planters

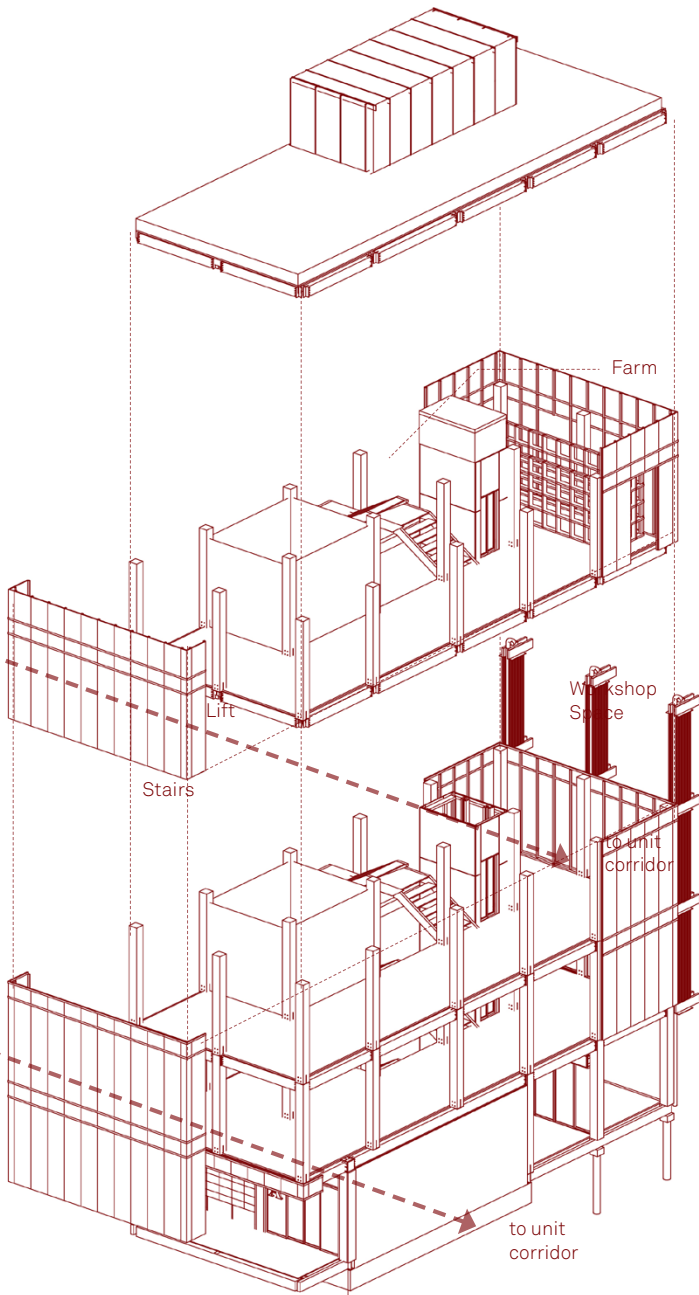
The vertical element also act as framework to temporary scaffolding, or different function such as balcony or planters.

Facade Concept & Core



Facade concept of the verticality but also act as green layers. The core it self will be clad by danpalon- polycarbonate. This to aims easy, and light construction as well as its transparency

The core acts as vertical circulation, with public function that the resident can adapt and propose. Using the similar dimension to make sure that wall/partition can be used in the core.



Lobby with mail box



Master Plan



- 1 Hoptille Mid-rise
- 2 New middle access
- 3 Main Public Building
- 4 Low Rise-Intervention
- 5 Bridge from Bus stop
- B Bus Stop
- P Hoptille Parking Building

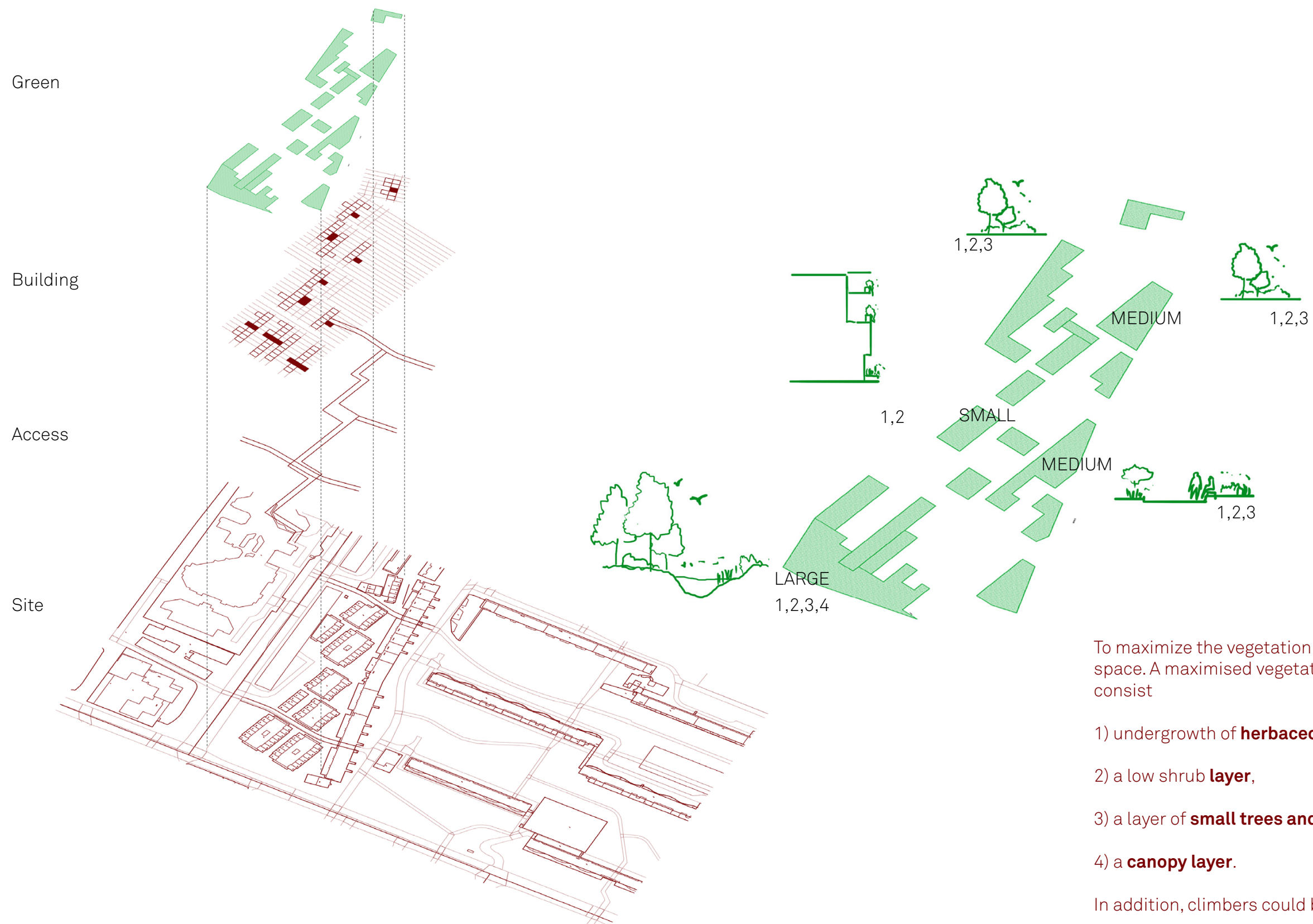


Master Plan



The Masterplan shows the configuration and core location. As well as the proposal to break the Hoptille mid-rise in the center. To create more permeability. The dedicated parking for disable, truck, and mini crane to stand in the construction process are also provided.

Master Plan Green Layers





Aerial View of Hoptille

Site Plan







View from the Viaduct (south)



View towards the Public Building



Public Building

Section

This section shows that the buffer zone are placed in the west to make sure get the afternoon sun. Core also connected to the corridor. The zone in between building now can be used different purpose.

The climate adaptation mainly having decentralized system for example heating floor with heat pump on each unit. The fresh air is from outside using Fresh-r system.

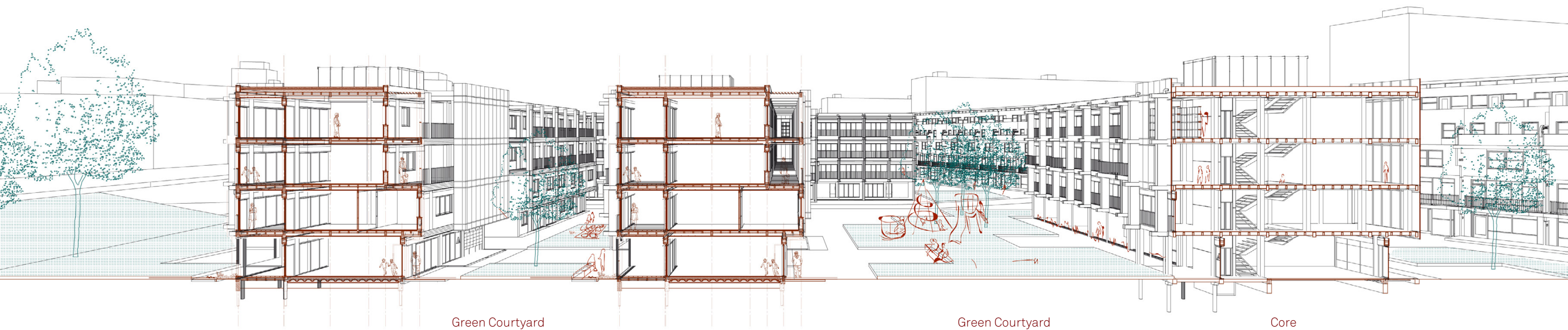
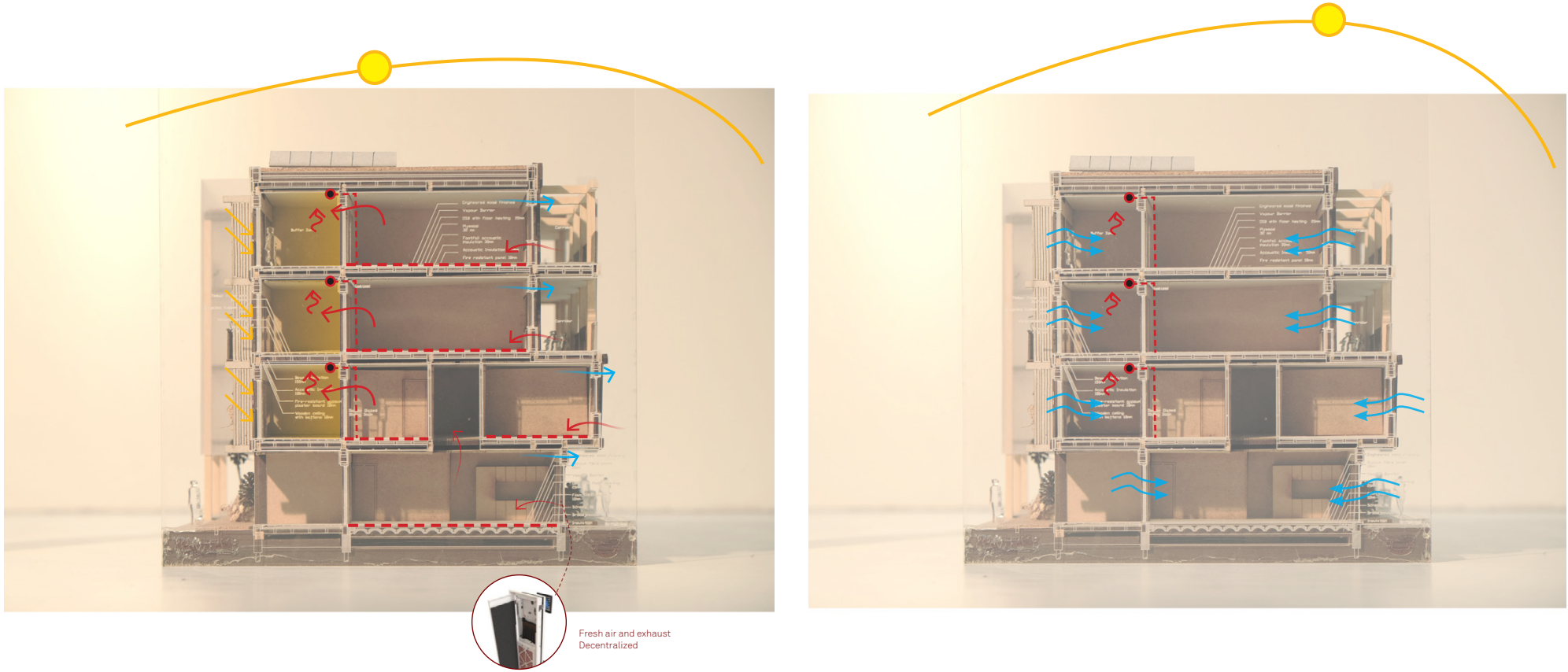
While in Summer, it uses natural ventilation.

Climate Concept

Winter

Summer

Ventilation Concept





Interiro View



View towards the Innercourt

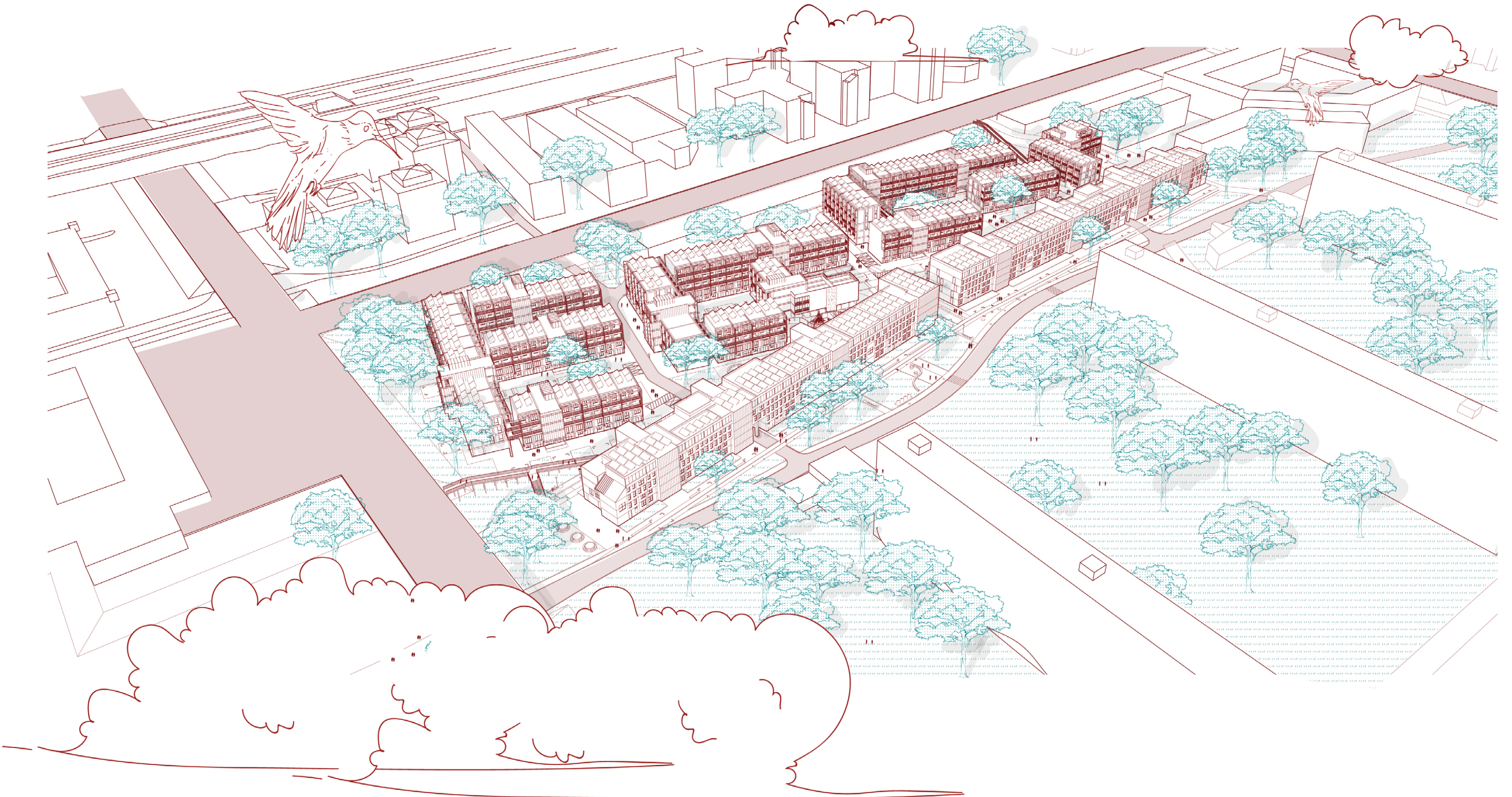
“

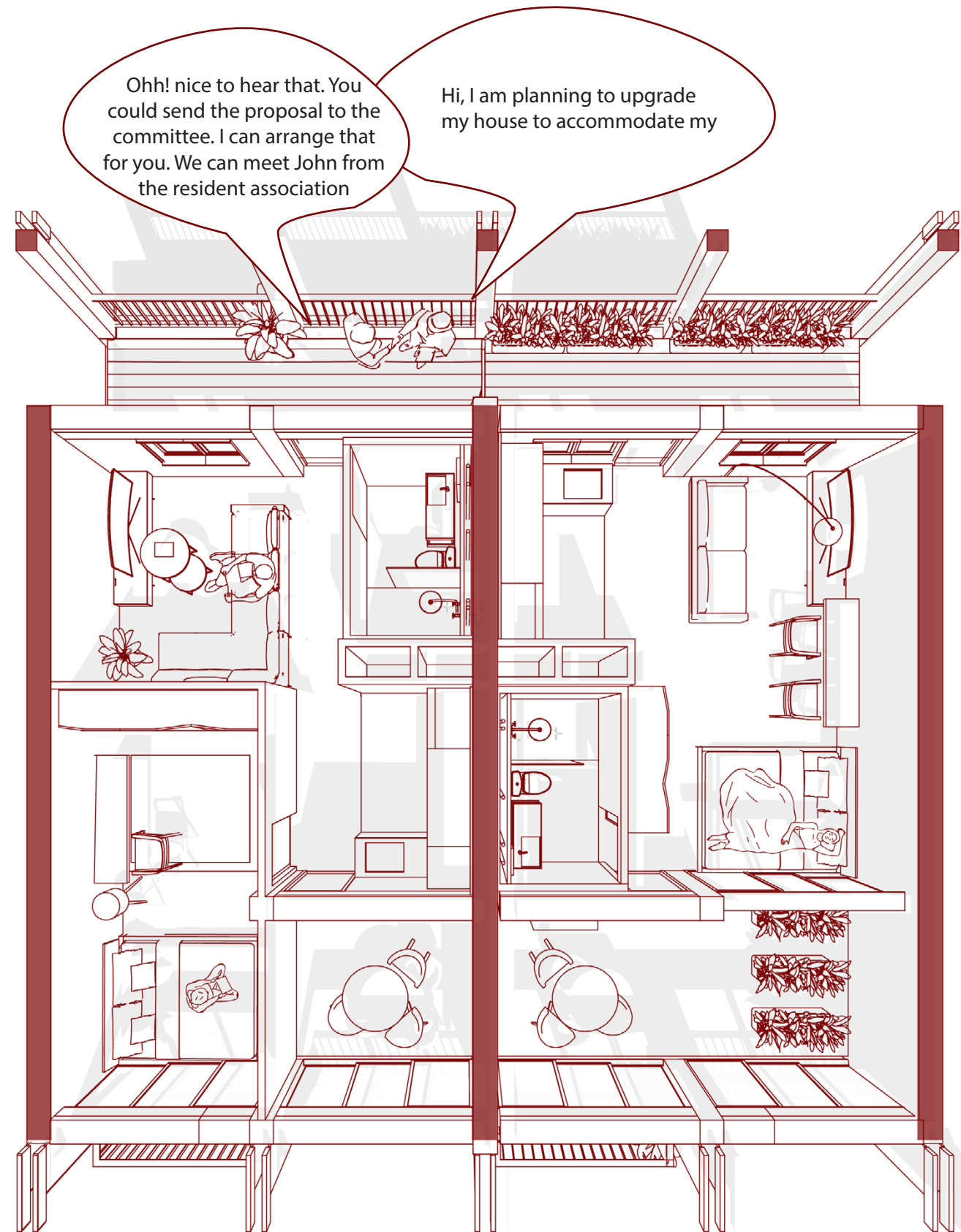
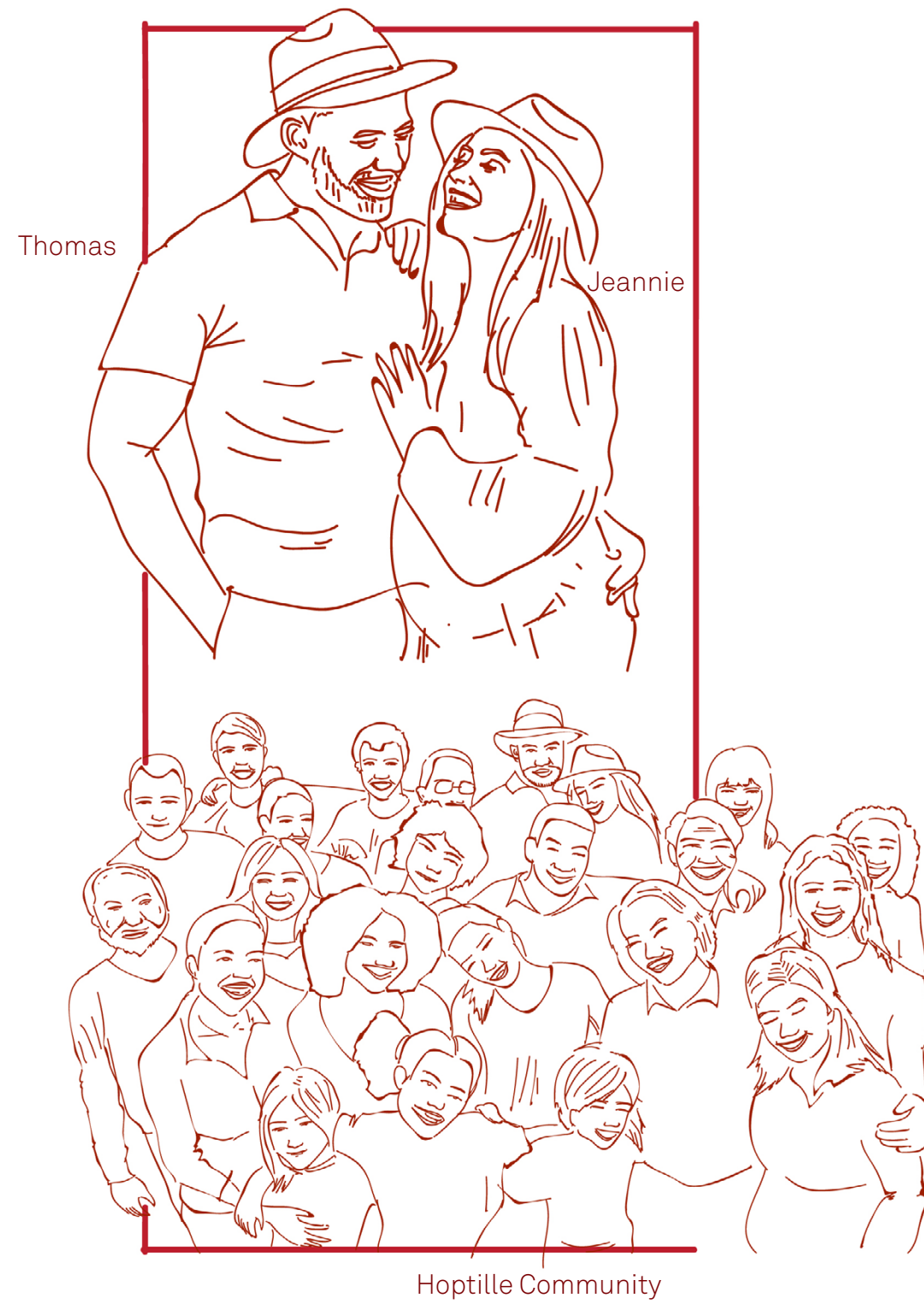
A Story from Hoptille

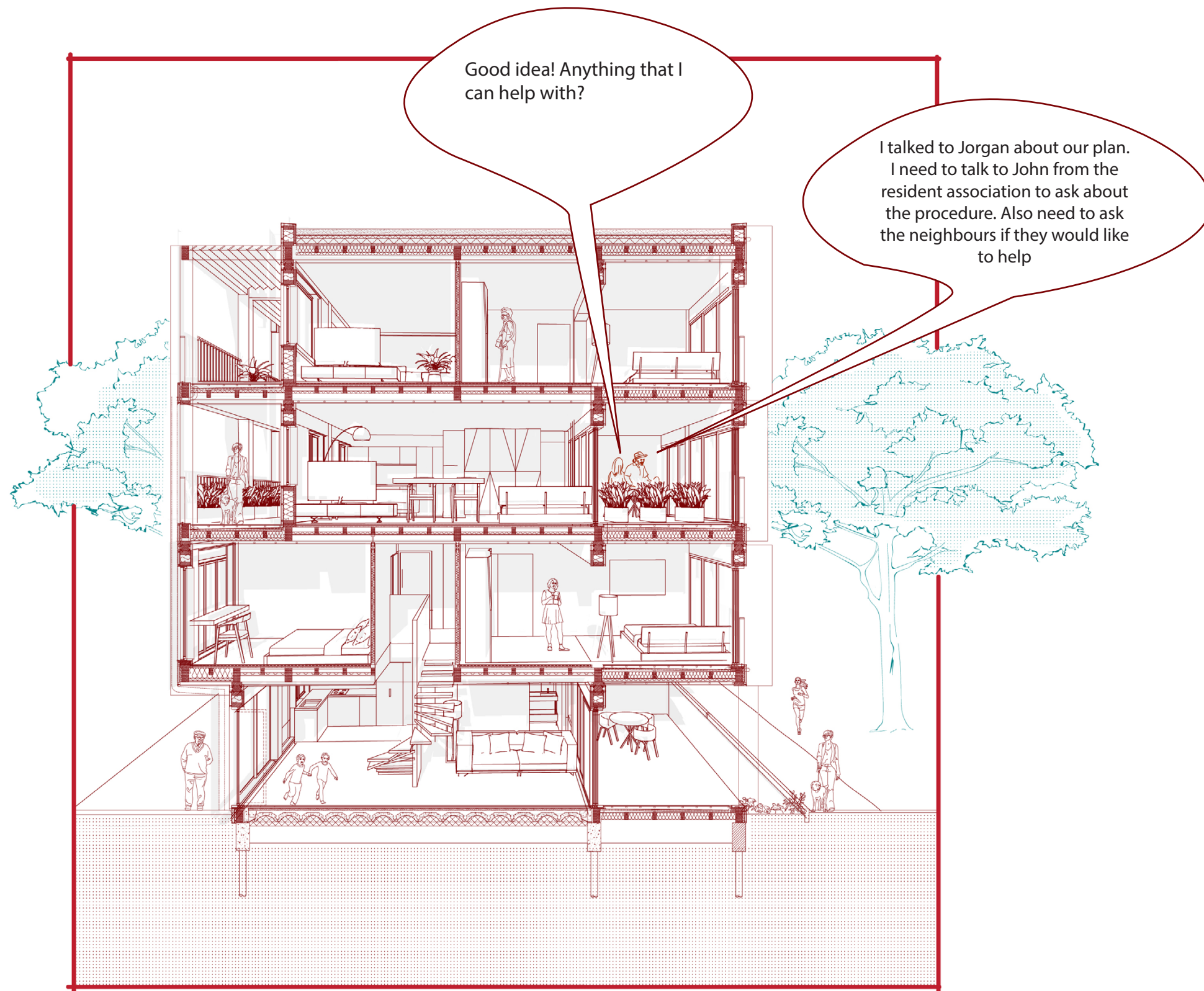
”

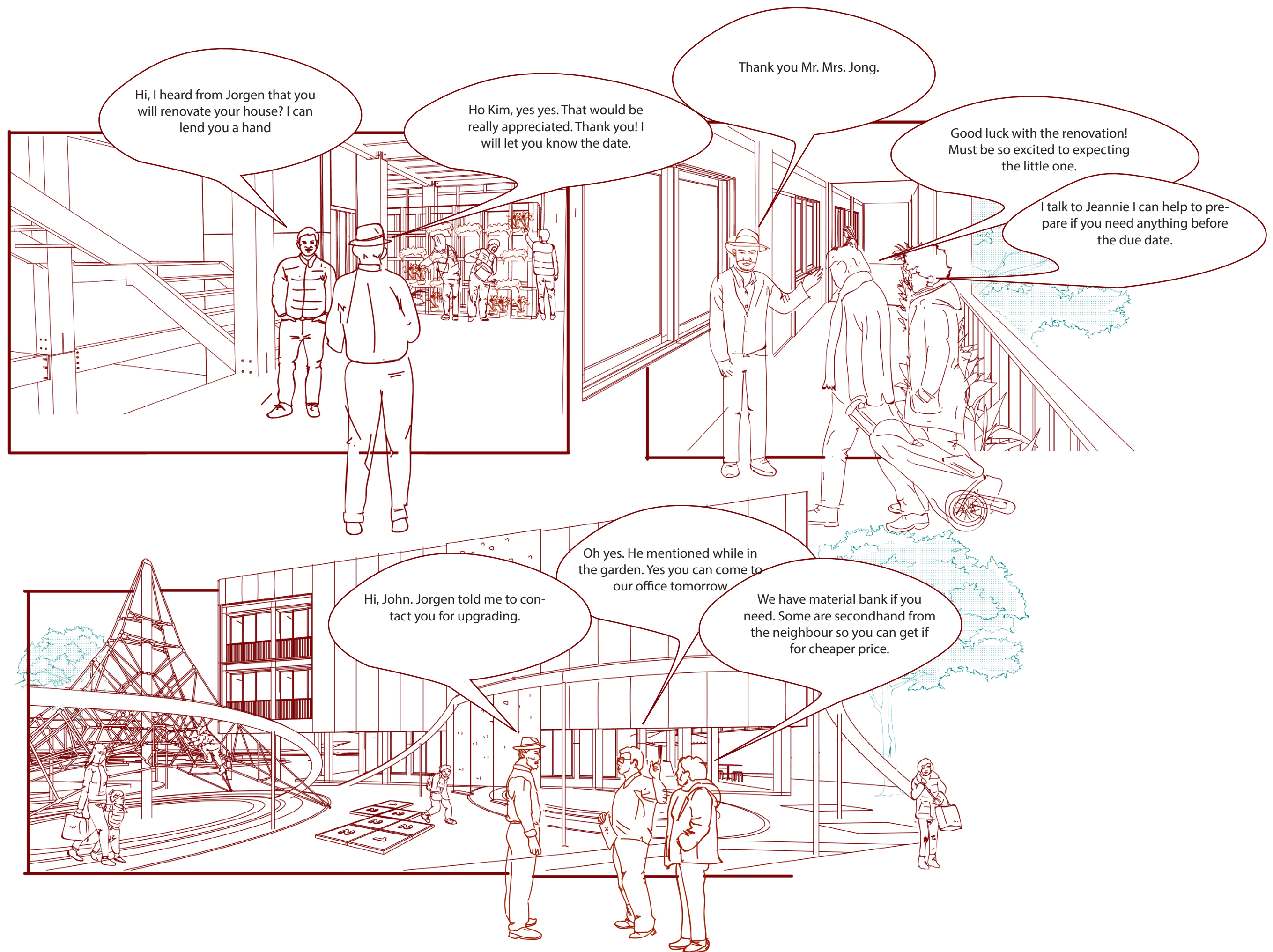
The following graphic narrative depicts the synthesis of what might be the social interaction and the daily life in this project would be. At the same time amplifying the pattern of reciprocal action on its adaptability of the community and the transformability of the urban structure

A Story from Hoptille

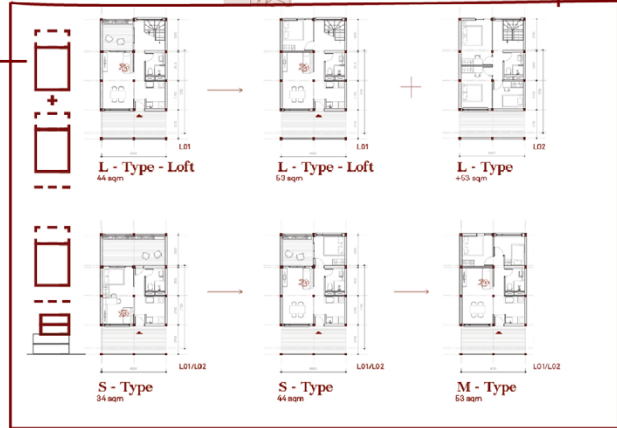
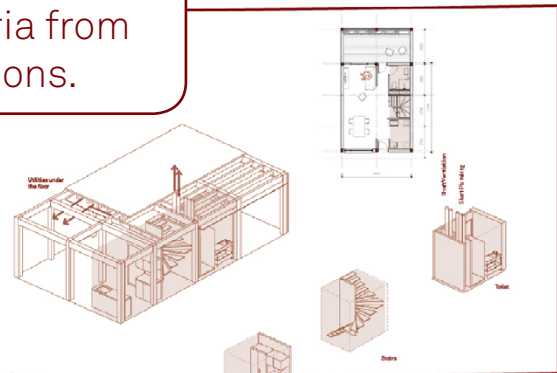




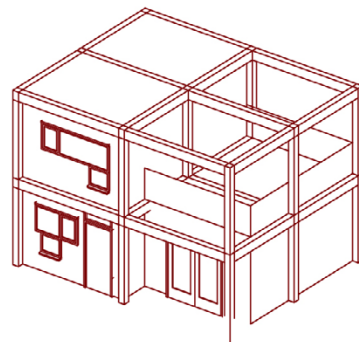




The architect set the standard that meet the criteria from Ymere & regulations.



Residents choose the housing plot & type. It comes with different possibilities of arrangement and facade.



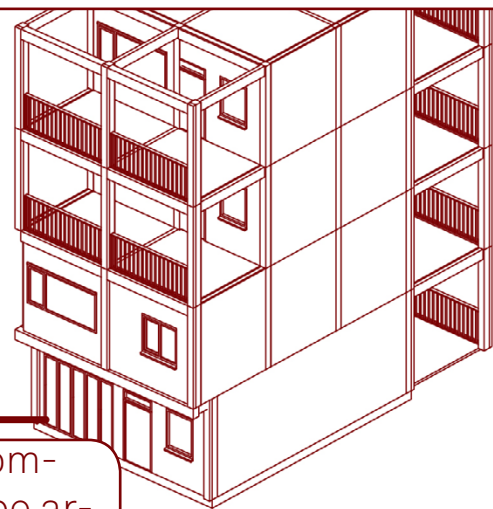
Assistance before construction



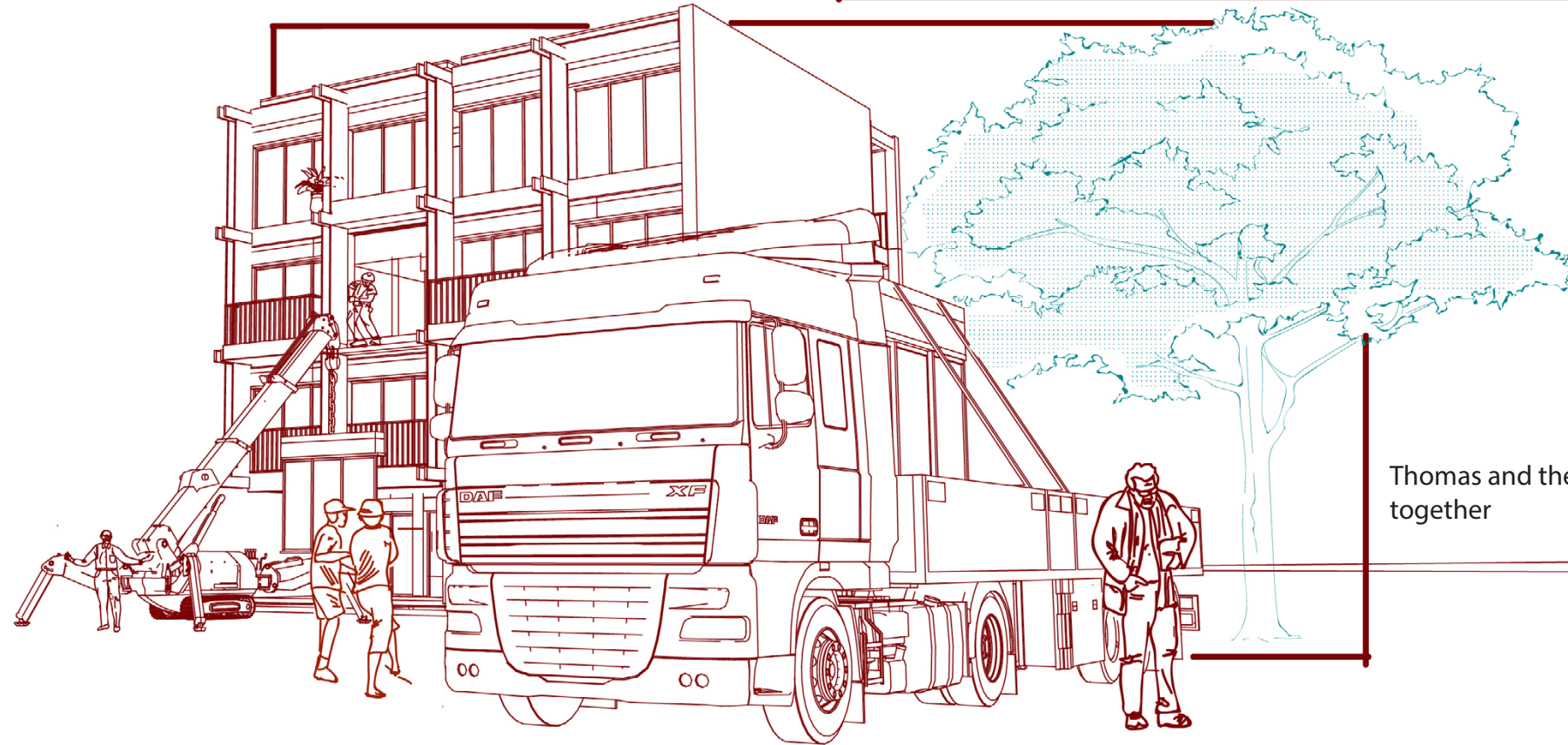
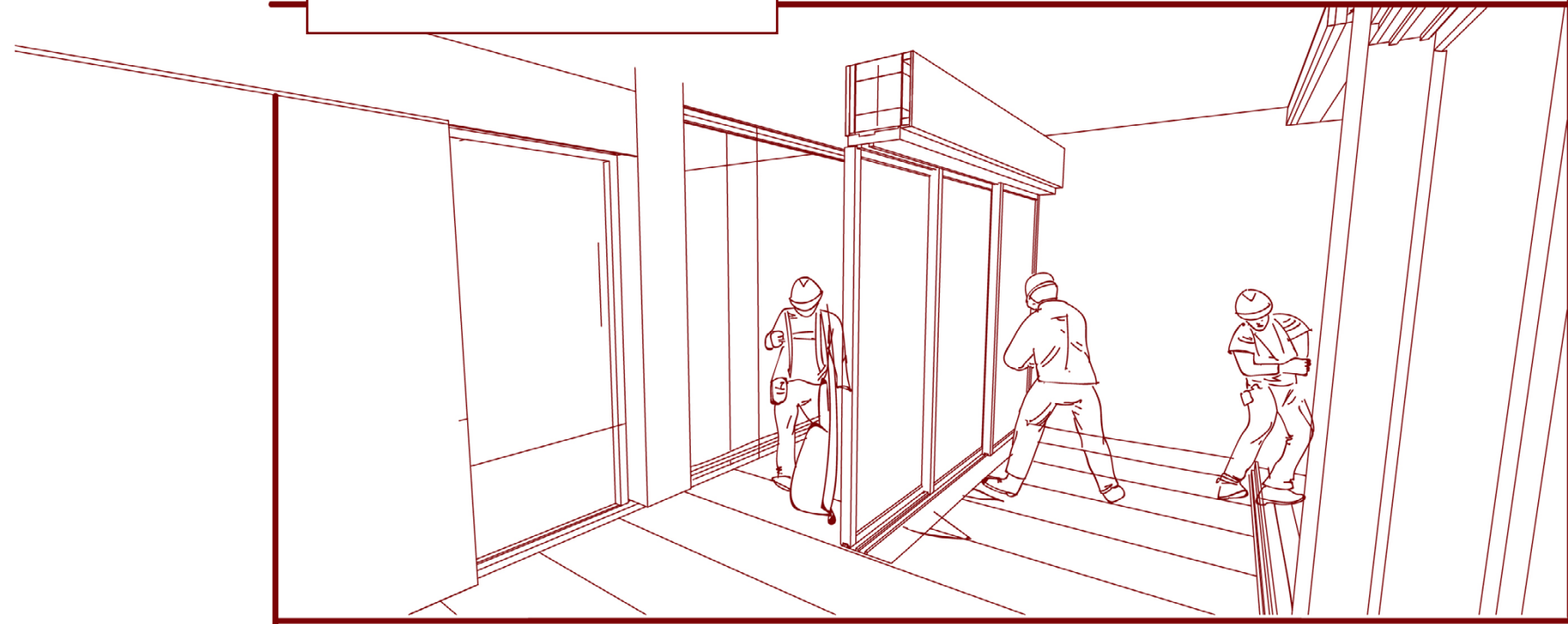
Ymere and Residents Association regulates the time of construction in the time windows. *says max twice a year the residents can upgrade their house / communal facilities in 3 weeks



The development of housing and communal can be built by builder or can be arranged by the Resident association for participation



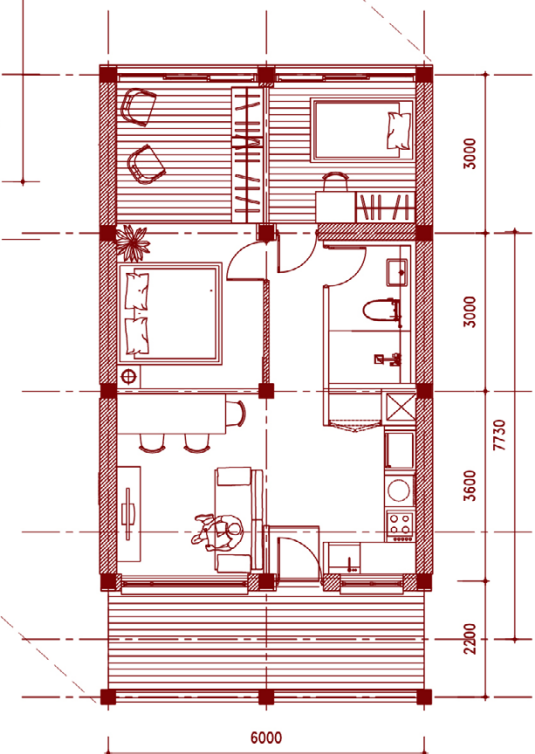
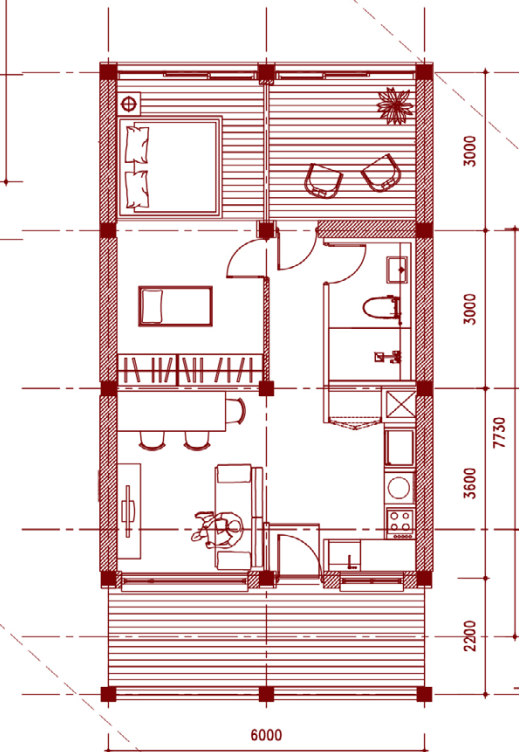
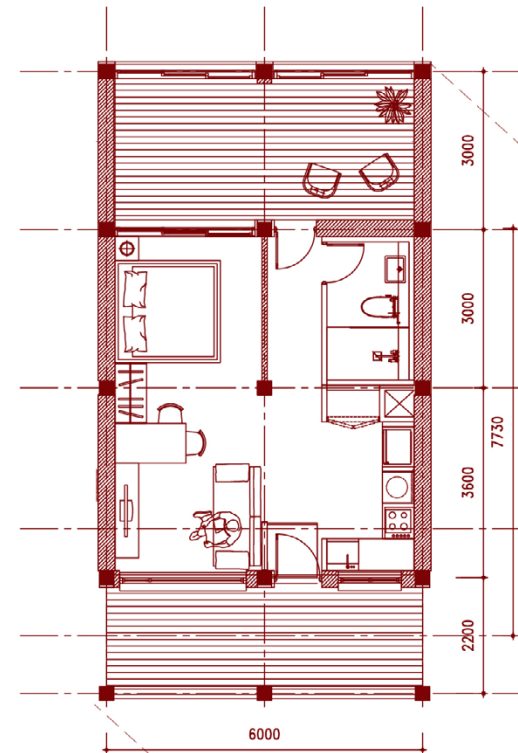
The communal work has begun



Thomas and the neighbours are working together

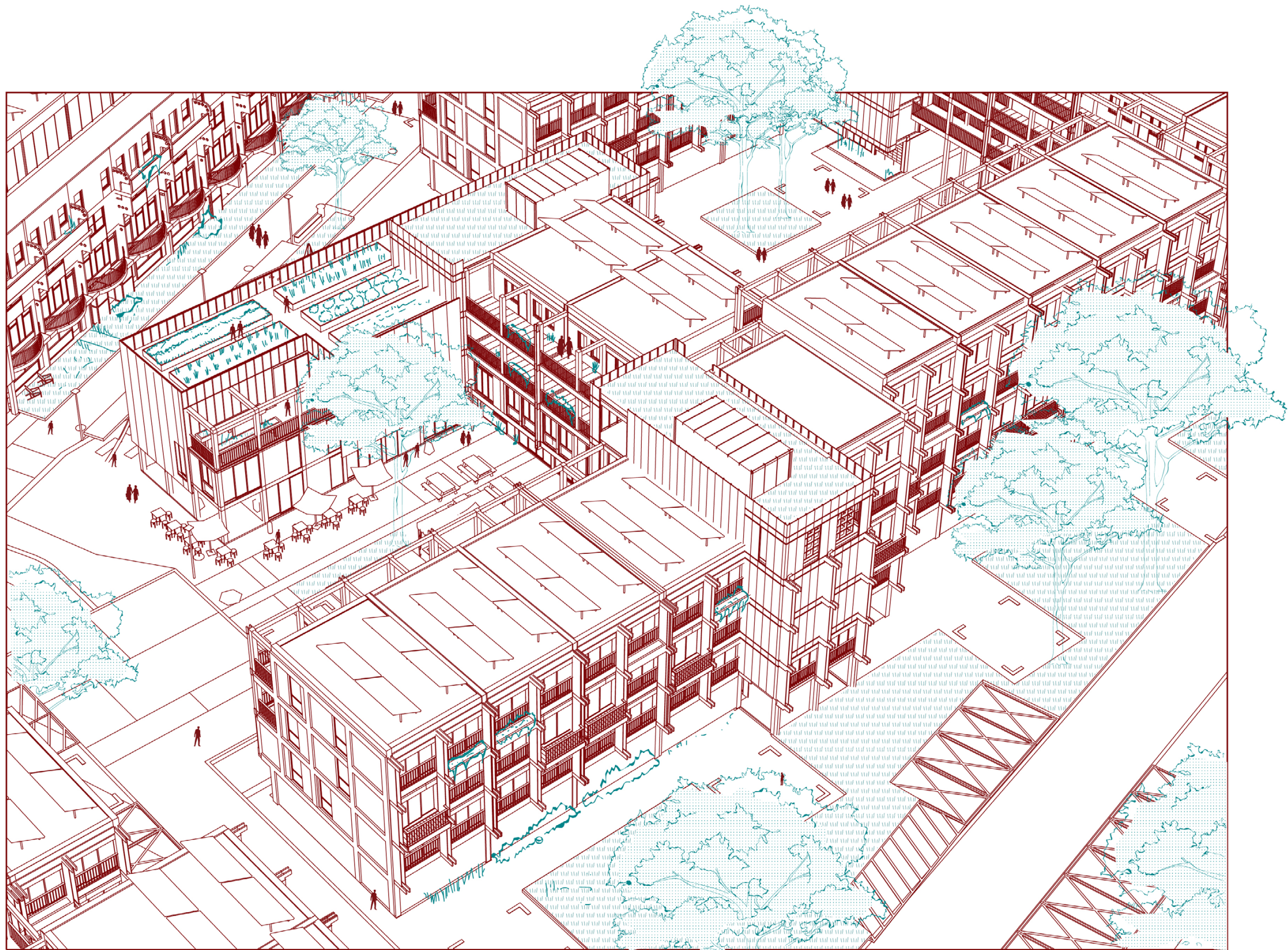


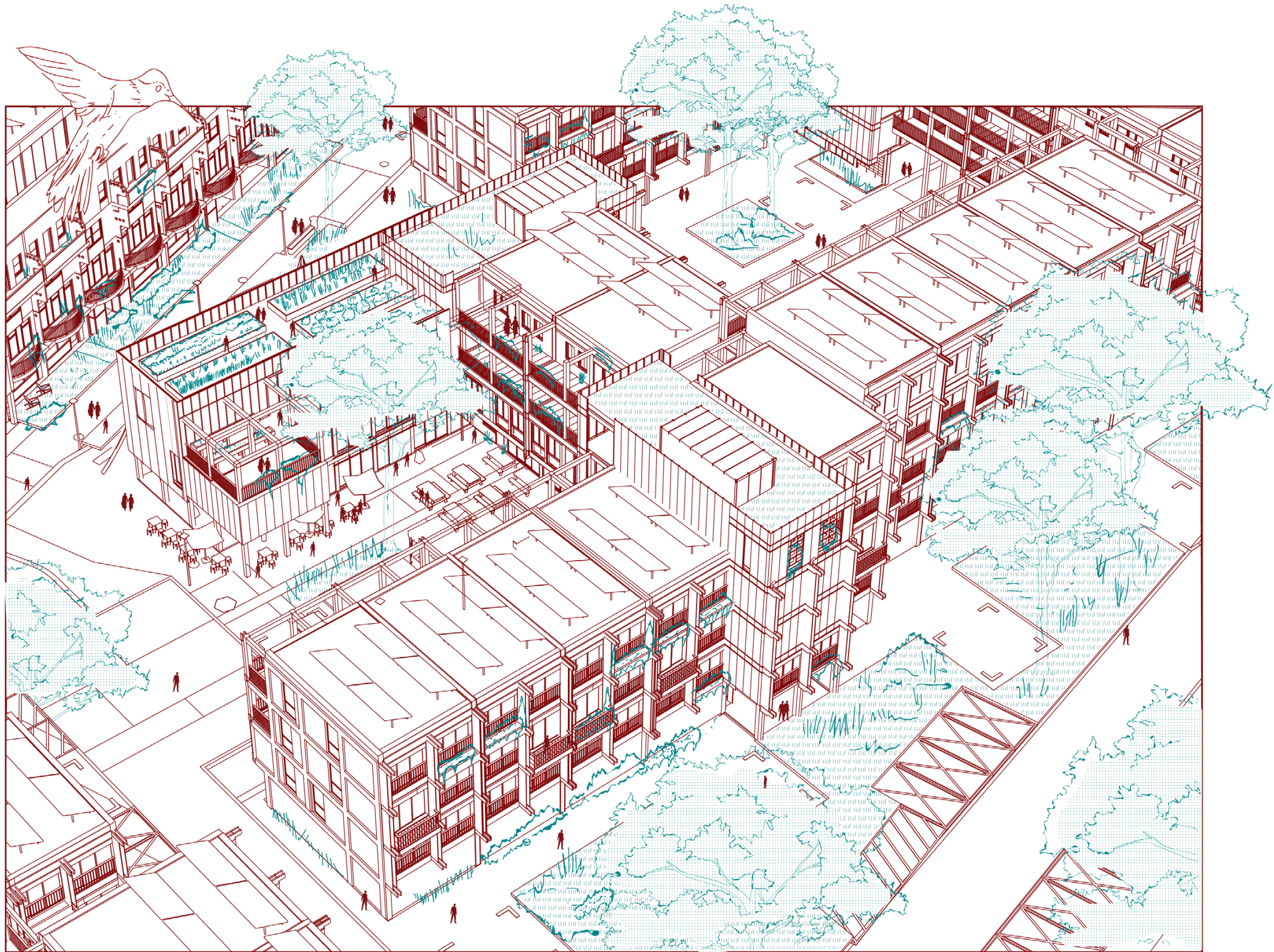
It take 1 day to assembly the facade



The house that grows overtime

Time is a space dimension





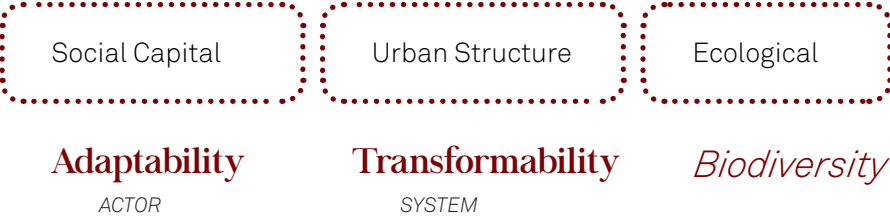
And through constant changes the neighbourhood will also grow and adapt to the future, add richness on each layers in the spaces and in the social interactions. . . .

4 Conclusion

Stadsarchief Amsterdam (n.d.) Hoptille, Architect: K. Rijnboutt (http://archief.amsterdam/archief/5293.FO_B)

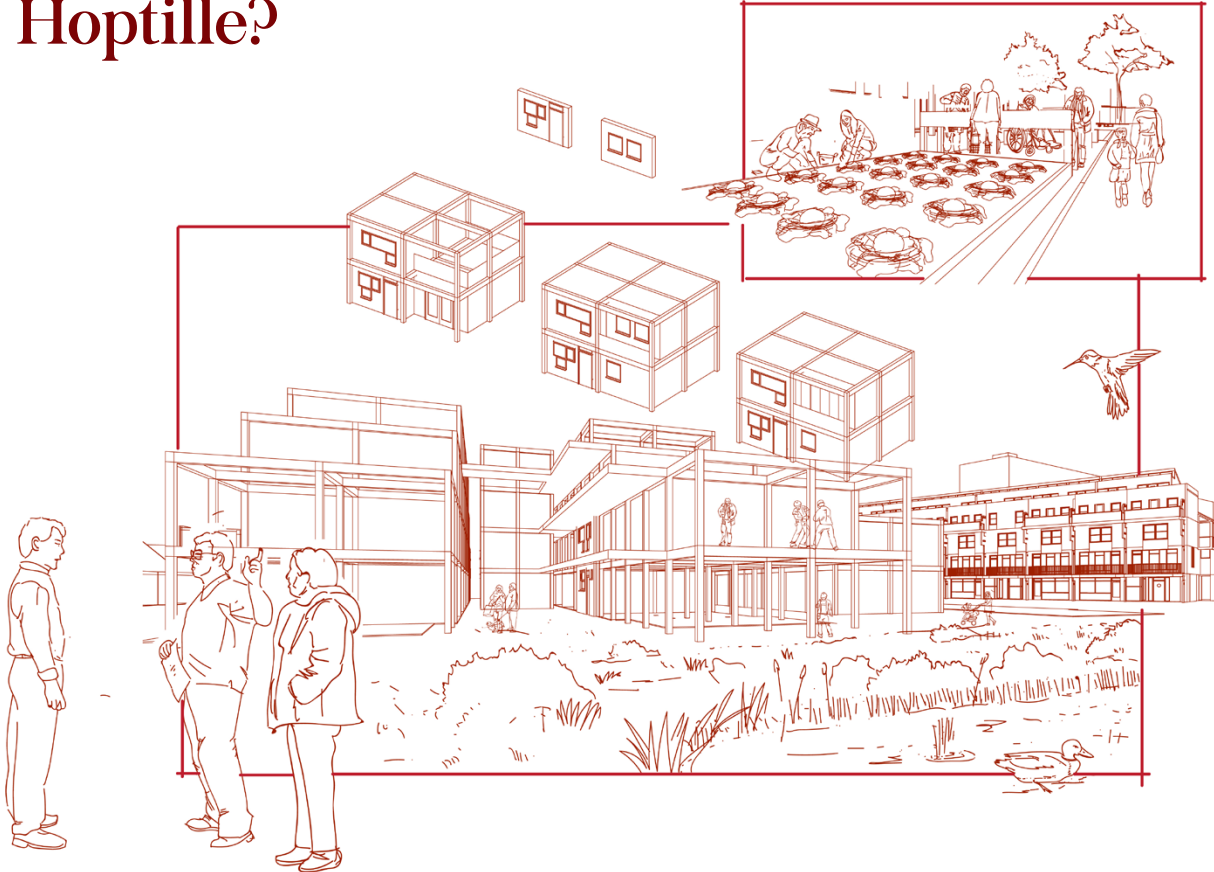
Conclusion

Does this approach improving resilience in Hoptille?

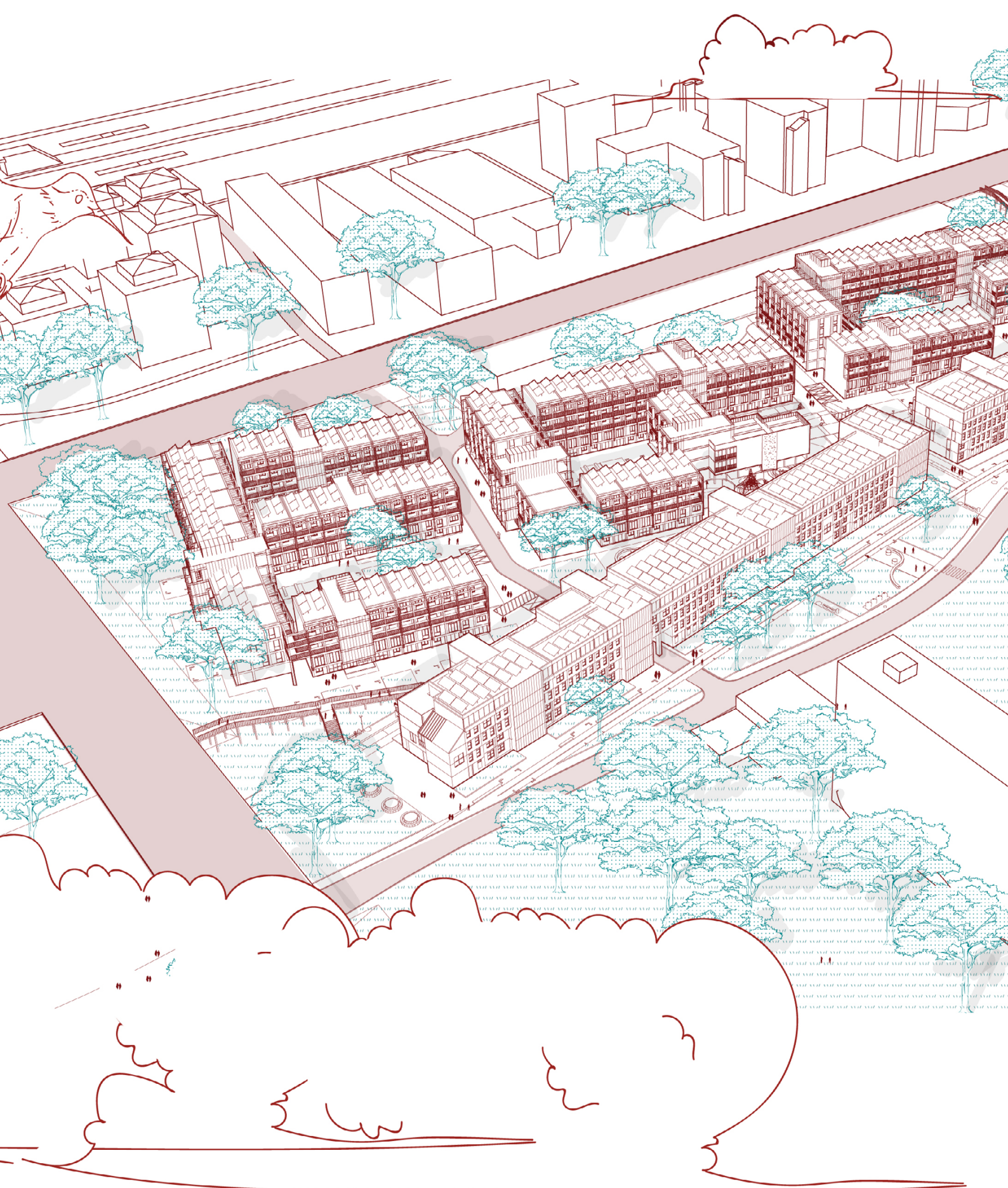


Through some reflection and seeing the possible pattern of interaction, the social capital can be achieved as well as the transformability of the urban structure.

This approach also improve its social value of hoptille, and echoing value of innovative identity and participation identity.



- + Redefining its Values & Significance
- + Echoing its social value and innovative identity
- + Nurturing its **community** to tackle its socio problem
- + **Reduce the burden** in renting and energy consumption
- + Longer Tenant to **reduce social segregation**



The Graduation Project's Relationship to Wider Context

New Heritage Approach

The New Heritage graduation studio is investigating the potential of a relatively new building by utilizing the participation from the people. This approach will bring a new layer of heritage assessment, not only in the Netherlands but also in other countries. The appreciation and the participation elevate the awareness from the people towards the existence of the significant architectural building or site. This becomes a new approach and a way to gain awareness and put the built environment on the discussion and raise people's appreciation towards their environment that is often neglected.

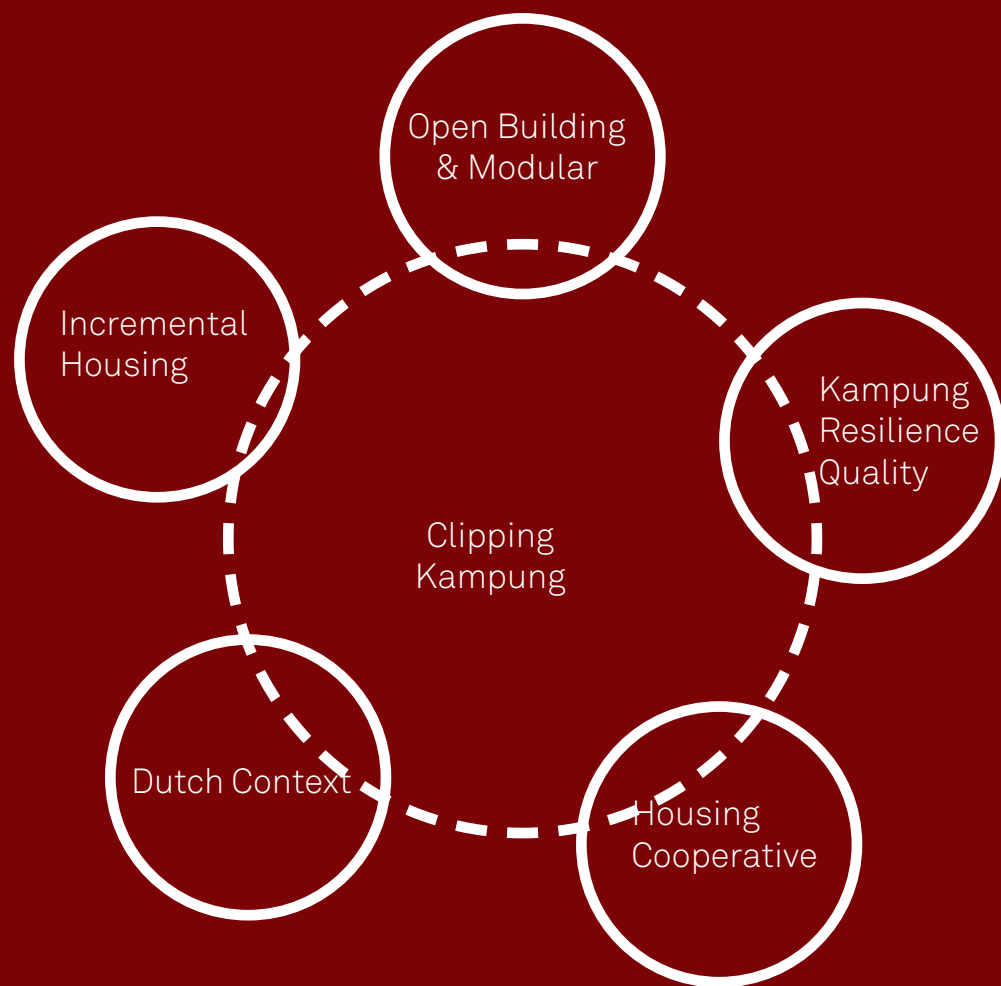
Cross Culture Approach

The cross-culture approach and learning from different cultures to be implemented in Dutch context is something that makes this project interesting. This research is trying to find out the lesson from social ties that makes Indonesia's Kampung is considered as resilience in the socio-spatial aspect of it, and implement its qualities in Dutch housing in Hoptille, Amsterdam. The resilience quality derived from the social bond from the Kampung dwellers is something

that this project is investigating. The implementation in the Dutch context is something that is challenging because of its different characteristics from the people, climate, to socio-political aspects. The gap and relevance of the cross-culture approach there and need to be proven further. However, the fact that this project is implementing social quality in a sense that the Netherlands needs to improve some of that quality, e.g. the loneliness in the Netherlands makes this approach interesting and relevant. The new approach and framework to put people responsible to maintain their built environment raises the sense of belonging and adds another layer of different approaches that can be utilized from the level of housing associations to the government.

Environmental Position

In the new urban intervention of Hoptille, the new structures are not only the housing and the capacity for it to adapt to future needs but also the biodiversity that resonates with the continuation from the bigger green network of Nelson Mandela Park and bigger Gaasperplas. The new diversity will add richness to the greeneries in Zuid-Oost. In addition, the notion of open building that this project brings adds another reference that flexibility might be the key to the adaptation for the uncertain future.



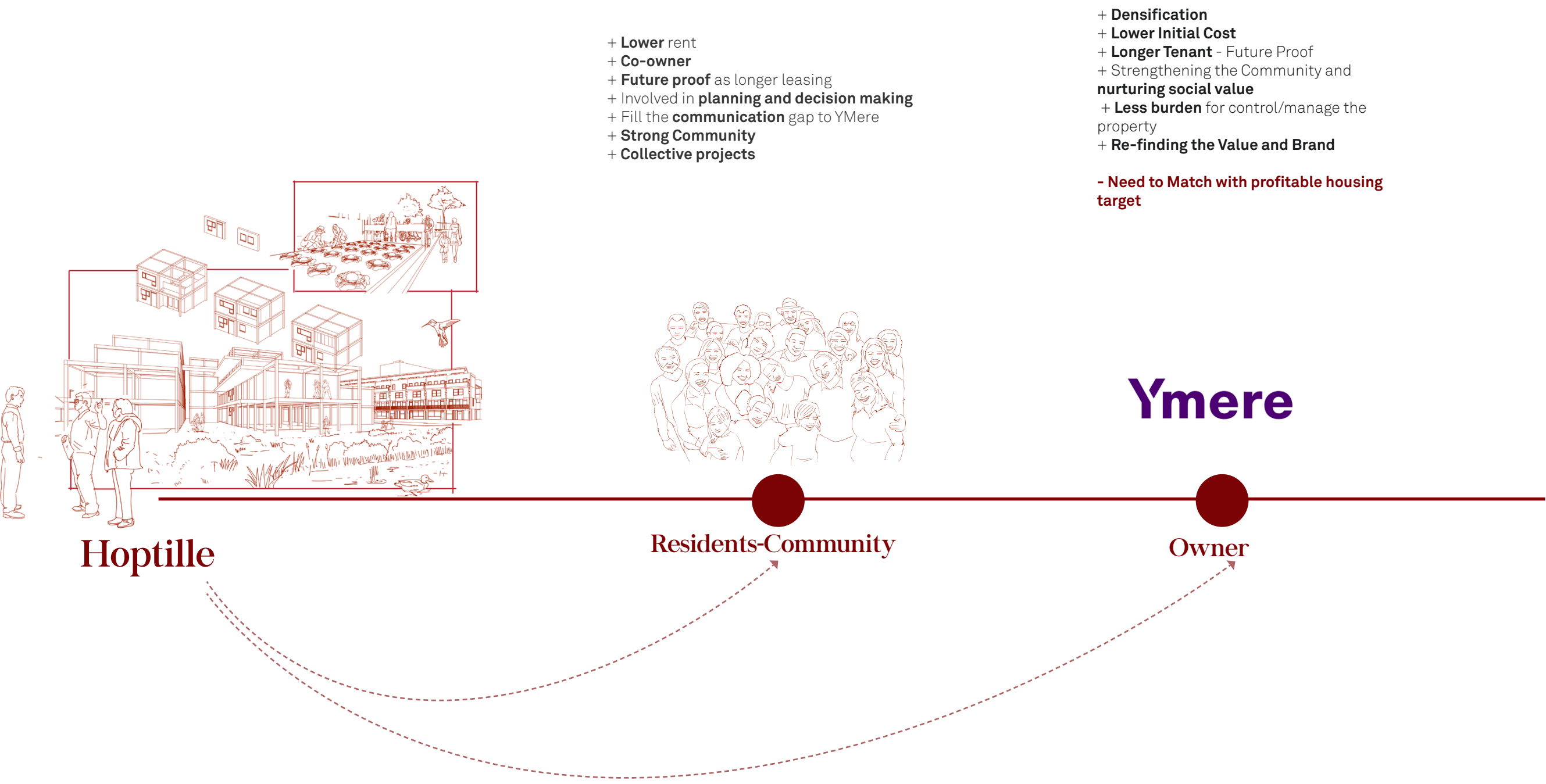
Additional Values of the Project

The significance of Clipping Kampung lies in the intersection of different aspects such as incremental, open building, housing cooperative, and Dutch housing context. It adds another discussion on the incremental housing framework, which is a well-known movement by Alejandro Aravena which provides housing that has the ability for future expansion in Chile. The similar approach providing low-middle class self-aided affordable housing has been emerging since the 1950s by John Turner who worked on slum settlement initiative and policy in Peru. In Europe, community-housing started in the 1960s in Denmark.

In the Netherlands, housing cooperatives are emerging. BajesDorp in Amsterdam, and Ecodorp Boekel in North Brabant are a few of them. The idea is to take housing from the market and manage it in a group of people so they can have an affordable rent. This idea has some challenges because banks

are not a recognized group of people for the mortgage (Kraniotis, 2021). On the other hand the affordability for housing in the Netherlands relies on the policy and financial support by the government in the social housing sector. (Haffner and Elsinga, 2015). The housing cooperatives seem promising in the future, but some of the housing sector are already occupied and owned by the housing corporation. The co-ownership model offers the possibility of sharing and strengthening the role of residents in housing corporations. It also offers some mutual benefits to the housing cooperation and the residents.

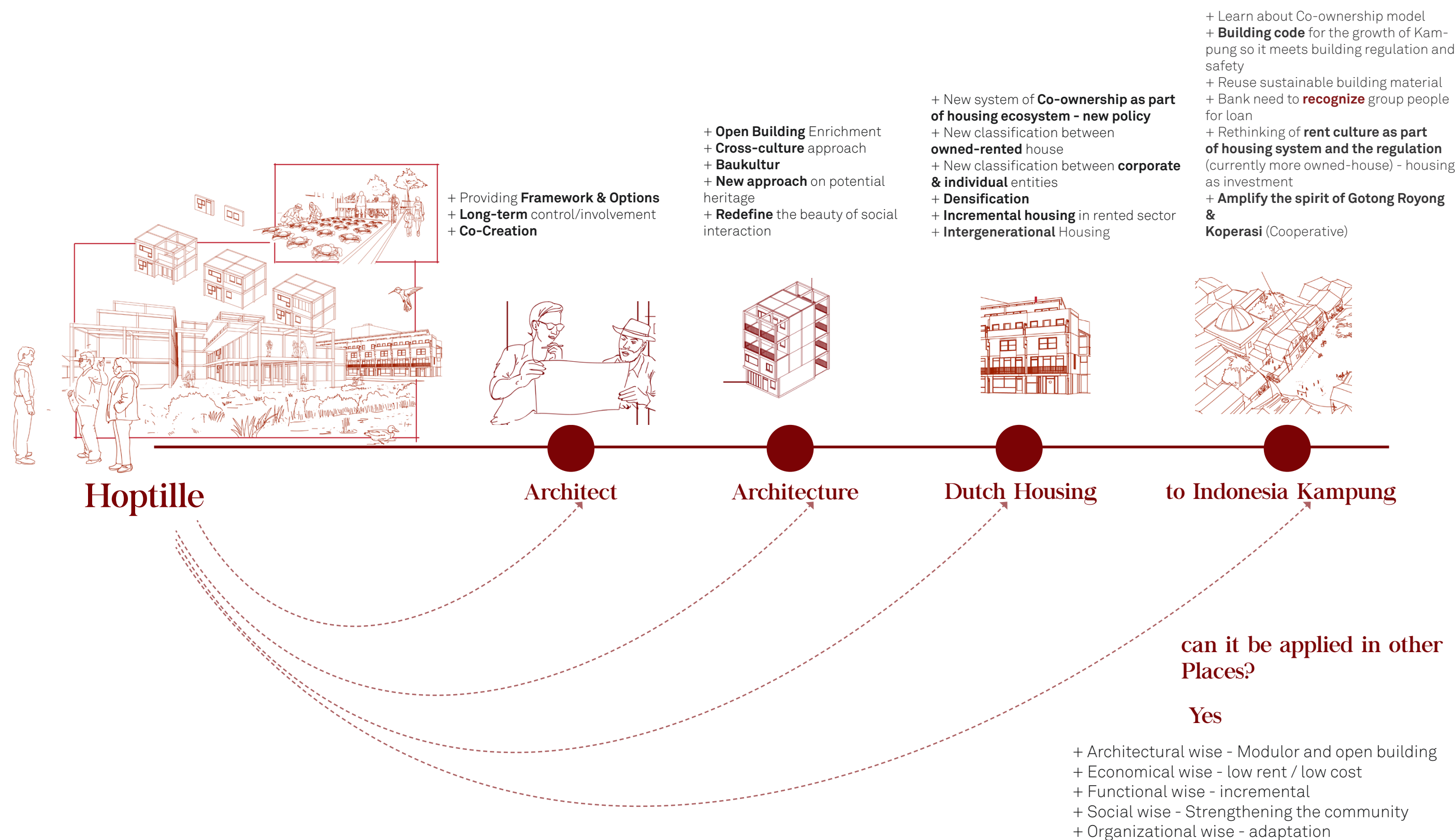
The Relevance



- + **Lower rent**
- + **Co-owner**
- + **Future proof** as longer leasing
- + Involved in **planning and decision making**
- + Fill the **communication** gap to Ymere
- + **Strong Community**
- + **Collective projects**

- + **Densification**
 - + **Lower Initial Cost**
 - + **Longer Tenant** - Future Proof
 - + Strengthening the Community and **nurturing social value**
 - + **Less burden** for control/manage the property
 - + **Re-finding the Value and Brand**
- Need to Match with profitable housing target**

The Relevance



Reflection

No Appreciation from the people = No Heritage?

In the early stage of this project, this project tried to find out the heritage value of Hoptille Building. Interviews were conducted with different stakeholders, from the owners, users, makers, academicians, and government. Almost everyone points out that the building doesn't have any value, even the architect said "just demolish it". This causes a dilemma because people's appreciation is what we need to find out. If everyone said no value, does it mean no heritage? Or "just demolish it" is a literal translation to demolish or is that implicitly to say "it might have some values, but this building causes many issues, I am not responsible for it"? It is hard to find what the people say and what it means for them. It is because of very subjective approach assessment, and the answers might be very personal based on their experience.

Nevertheless, a deeper investigation is needed to understand the building. The notion of "Street in the Sky" from Smithson that is seen as utopian interaction for hi-rise building also implies in Hoptille. Does it mean Hoptille has a heritage value? But then it is not really derived from the assessment of people's appreciation. This project's approach showed that it's difficult to value "non-significant" buildings, moreover in relatively new buildings. Moreover, it shows that sometimes the problems hinder the building quality, in a sense that the problem draws people's attention that the value and quality are often overlooked.

In the end, it is the role of the project architect to decide the value of the building through constant investigation and create a design solution for it.

Old structure vs New Structure

This project took an approach of reuse the existing urban structure based on the existing building footprint and reuse the foundation while adding the new supporting structure to help bear the load of the new building. When it comes to the decision of demolition, or preservation it is really hard to decide. A similar dilemma also took consideration when deciding to intervene in the low-rise building. The new intervention needs a bio-based flexible open structure in which the old structure doesn't really comply with it because the wall bearing structure and load capacity of the two storeys building is not enough to support the new building. The decision to demolish or reuse some of the existing structure became important. Some evaluation and criteria was introduced to help with this decision. And it was derived from transformability quality with criterias e.g. less intervention vs degree of flexibility, urban structure quality, carbon footprint, and potential of densification.

Different Context; Indonesia - Netherlands

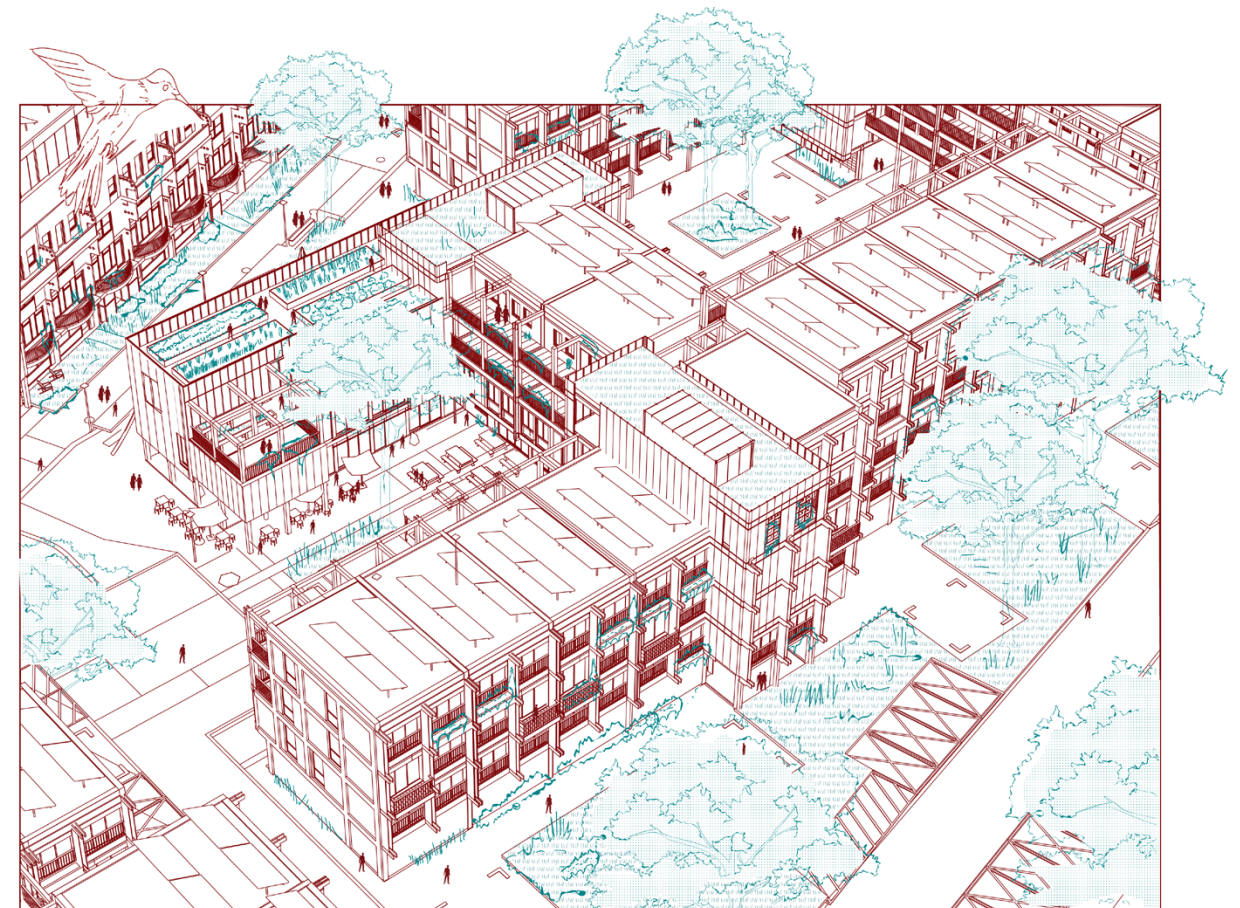
As part of the research, this project took lessons learned of resilience from Indonesia's Kampung. The social and urban aspects were assessed to come to the conclusion that the project intervention will bring adaptability of social quality in Kampung and its transformability of urban structure. The translation of the social capital feels very challenging yet interesting because of this different context because are a lot of factors and back-

ground that need to be acknowledged in the translation from the different social interaction, culture, climate, geo-politics, history, to the economic aspect that play a role in shaping the Kampung the way it is now. The translation needs to be carefully assessed that will fit to the Dutch context, and it may raise a discussion over this translation.

Time is a space dimension

From this project I learned that the time in the future and its uncertainty are always there. The additional series of adaptation of a building through time also proves that space, knowl-

edge of people and function is always enriching overtime. The flexibility that this project offers different directions and results. This also means it can lead to something good or bad. The decision is made at the present time. That's why It made me realize that every dilemma on design decisions would have its own parallel universe in the future with its own consequences. Considering that, made me realized that designing for the present is not enough nor designing the future. One of a good solution is to put environmental sustainability as main concern, to make sure that we still have fresh air, open space, and diversity that this planet needs.



Acknowledgement

I would like to express my sincere gratitude to those who helped and supported me to make this graduation possible through these difficult times :

To the tutors Nicholas Clarke, Lidwine Spoormans, Ger Warries who showed the beautiful journey of this graduation project. Who always give insightful food of thoughts, humble and sincere to share their knowledge and always encourage me to step up from my comfort zone and push me to get the best. Who gave the deepest understanding of what is architecture and heritage, research, ensuring we get the best education and experience. They shaped me not only academic, but also the understanding beyond the architecture itself.

To my friends/colleagues in New Heritage studio; Karry Li, M. Karl Messinger, Anneloes Tilman, Yu Ting, Stefan Lichtenveldt who share discussion and support each other throughout the times. To my fellow Indonesian friends in Bouwkunde ; Astidira Aпти and Asmita who always have each other's back to make sure we have a smooth journey together.

To tutors; Alexander de Ridder who introduced me to Architecture and Heritage, and Birgit Jurgenhake who gave me the understanding of Dutch Housing.

To LPDP Indonesia who funded the entire study in TU Delft.

Lastly, I dedicated my graduation to my wife Vannesya Harahap, my lovely daughter Jiya, my mother and my father who always become the lights for me to keep going, put trust and endless support, thank you for the warmest love in the coldest winter.

--

Thank you



Bibliography

Brand, S. (1994). *How buildings learn: What happens after they're built*. New York, NY: Viking.

Clarke, N., Kuipers, M., & Stroux, S. (2019). *Embedding built heritage values in architectural design education*. International Journal of Technology and Design Education, 30 (2020), 867–883. <https://doi.org/10.1007/s10798-019-09534-4>

Clarke, N. and Spoormans, L. (2020) New Heritage: Amsterdam/Almere (Studio Introduction Text). Available at: <https://brightspace.tudelft.nl/d2l/le/content/278720/viewContent/1957414/View>

Gehl, J. (2011). *Life between buildings : using public space*. Washington, D.C.: Island Press.

Habraken, J. (1961). *De dragers en de mensen: Het einde van de massawoningbouw*. Amsterdam: Scheltema & Holkema.

Haffner E.A.M. & Elsinga G. M. (2015) *Affordability. in Housing Review 2015: Affordability, Sustainability, Livability*. Habitat for Humanity (p. 29-41)

Harper, D. (2002). *Talking about pictures: A case for photo elicitation*. *Visual studies*, 17(1), 13-26.

Hegger, M., Auch-Schwalk, V., Fuchs, M. & Rosenkranz, T. (2005). *Baustoff Atlas*. Munich, Germany: Institut für internationale Architektur-Dokumentation GmbH & Co. KG. München

Hennink, M., Hutter, I., & Bailey, A. (2020). *Data Preparation and Developing Codes. In Qualitative research methods* (p. 207-234). SAGE Publications Limited.

Hutama, I.A.W. (2016), *“Exploring the sense of place of an urban kampung. Through the daily activities, configuration of space and dweller’s perception: case study of Kampung Code, Yogyakarta”*, ITC, University of Twente, Enschede, available at: www.itc.nl/library/papers_2016/msc/upm/hutama.pdf

Kajima, M., Stalder, L., & Iseki, Y. (2018). *Architectural Etnography*. Tokyo: TOTO Publishing

Oorschot, L (2020). *Wonen in een waarde(n)volle samenleving: De apostel van de verdichtingskerk rijksbouwmeester Floris Alkemade en de weilandvolbouwer en woningbouwhoogleraar Peter Boelhouwer in debat over de woningopgave*.

Sen, A (1999). *Development as Freedom*. New York: Alfred Knopf

Shirleyana, Hawken, S., Sunindijo, R.Y., (2018) *"City of Kampung: risk and resilience in the urban communities of Surabaya, Indonesia"*, International Journal of Building Pathology and Adaptation, <https://doi.org/10.1108/IJBPA-02-2018-0025>

Funo, S., Yamamoto, N., & Silas, J. (2002) *Typology of Kampung Houses and Their Transformation Process-- A Study on Urban Tissues of an Indonesian City*, Journal of Asian Architecture and Building Engineering, 1:2, 193-200, DOI: 10.3130/jaabe.1.2_193

Tarrafa Silva, A., and Pereira Roders, A. (2012). *Cultural heritage management and heritage (impact) assessments*. Joint CIB W070, W092 & TG72 International Conference on Facilities Management, Procurement Systems and Public Private, Partnership, Cape Town, South Africa

Walker, B., C. S. Holling, S. R. Carpenter, and A. Kinzig. (2004). *Resilience, adaptability and transformability in social–ecological systems*. Ecology and Society 9(2): 5. <http://www.ecologyandsociety.org/vol9/iss2/art5>

Wassenberg, F. (1988). *Hoptille: Een Idealistisch Woonconcept op Tilt*. Delft : Delftse Universitaire Pers

Wassenberg, F. (2013). *Large Housing Estates: Ideas, Rise, Fall and Recovery – The Bijlmermeer and Beyond*. Amsterdam: IOS Press under the imprint Delft University Press.

Zilkstra, H (2009). *Analysing Building from Context to Detail in time ABCD(time) research method*. Amsterdam: Delft University Press.

Website :

BIJLMER IN TIJD : in chronologische volgorde, van opbouw naar afbraak, sloop en eengezins (n.d) <https://bijlmermuseum.com/de-bijlmer-in-tijd/>

Cultural Identities: Almere (The Netherlands). (n.d) <http://www.planum.net/cultural-identities-almere-the-netherlands>

Informatie wijk Bijlmer Centrum D F H. (n.d). <https://allecijfers.nl/wijk/bijlmer-centrum-d-f-h-amsterdam/#kaart>

Kraniotis, L. *In opkomst: met een groep een huis bouwen en dan van jezelf gaan huren (2021, May 14)* <https://nos.nl/artikel/2380662-in-opkomst-met-een-groep-een-huis-bouwen-en-dan-van-jezelf-gaan-huren>

Little change in poverty rate – nearly 8% of Dutch households are poor (2019, December 9) <https://www.dutchnews.nl/news/2019/12/little-change-in-poverty-rate-nearly-8-of-dutch-households-are-poor/>

<https://bajesdorp.nl/>

<https://code.waag.org/>

<https://fresh-r.eu/>

<https://patch22.nl/>

<https://www.openbuilding.co/>



Graduation Report - Clipping Kampung

Nurhadi Nugraha - 5118042

TU Delft, June- 2021