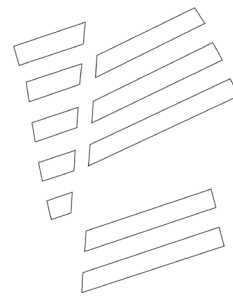


# MODERNIZING A CITY OF MIGRANTS

*The Hidden Informal World of Tarlabası*



Borders & Territories - Transient Liquidities along the New Silk Road II

Ron Weissenburger - 4676971

MSc 3/4 - Architecture

TU Delft

P5 - 26.06.2023



In 2000 the Urban Transformation Project in Istanbul started.

According to the UN Nations Habitat report of 2009,  
at least **1.000.000 residents** of Istanbul were under threat of  
**forced eviction** due to Urban Transformation Projects.  
In 2009 there were 17.018.735 people living in Istanbul.



*Photo by Günboyu*

“We should find a way to keep poor people from the city of Istanbul”

(Erdogan Bayraktar, chairman of the Mass Housing Administration of Turkey)





## TOKI versus the informal settlement

Urban renewal or gentrification or however you want to name it, is seen as a necessary tool to erase certain parts of social and physical identities created in the last 50 years via programs of demolition and resettlement.





TOKI propoganda on school in Demirkapı in Istanbul

Residents are evicted or given unfair compensation to leave their homes or workplaces.  
As a result, the gentrification processes result in a displacement of the poor, driving them away from the city center and their informal work.





*Photo by BBC News*

## Gezi Park Protests; 2013

‘Her yer Taksim, her yer direnis’

*‘Everywhere is Taksim, everywhere is resistance’*





This is saying:  
"The time for talking is over."

*From the VICE News documentary: The New Gezi Park Protesters: Istanbul's Gentrification Wars*

Gentrification war?

This project aims to take a critical look at the current neoliberalist modernization processes of urban areas around the world through the case of Istanbul. Urban informality is receiving more and more attention in the literature, but there is still a lot of uncertainty about how we can deal with this phenomenon in urban design and architecture.

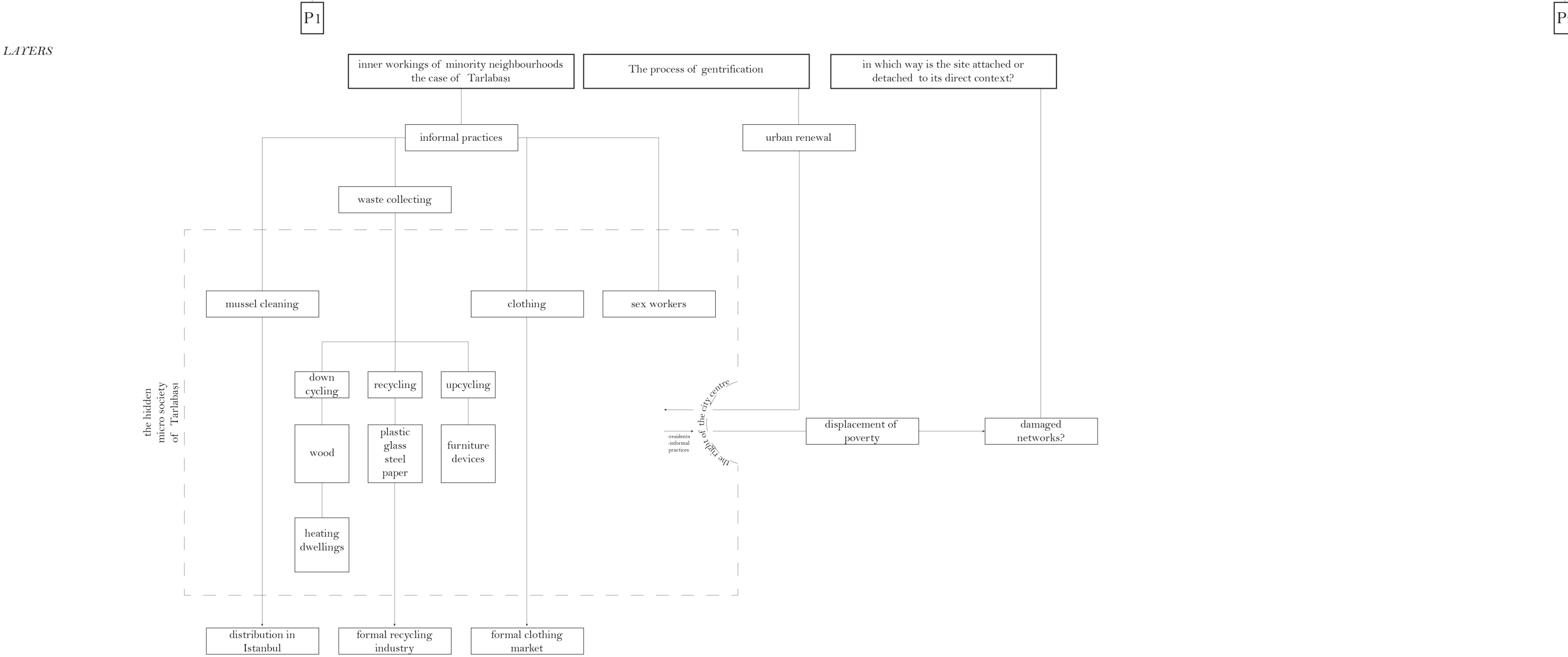
Research question:

In which way can architecture contribute in creating awareness in the importance and strengths of informality and address that formality and informality are linked in a dynamic, interrelated and complex system?

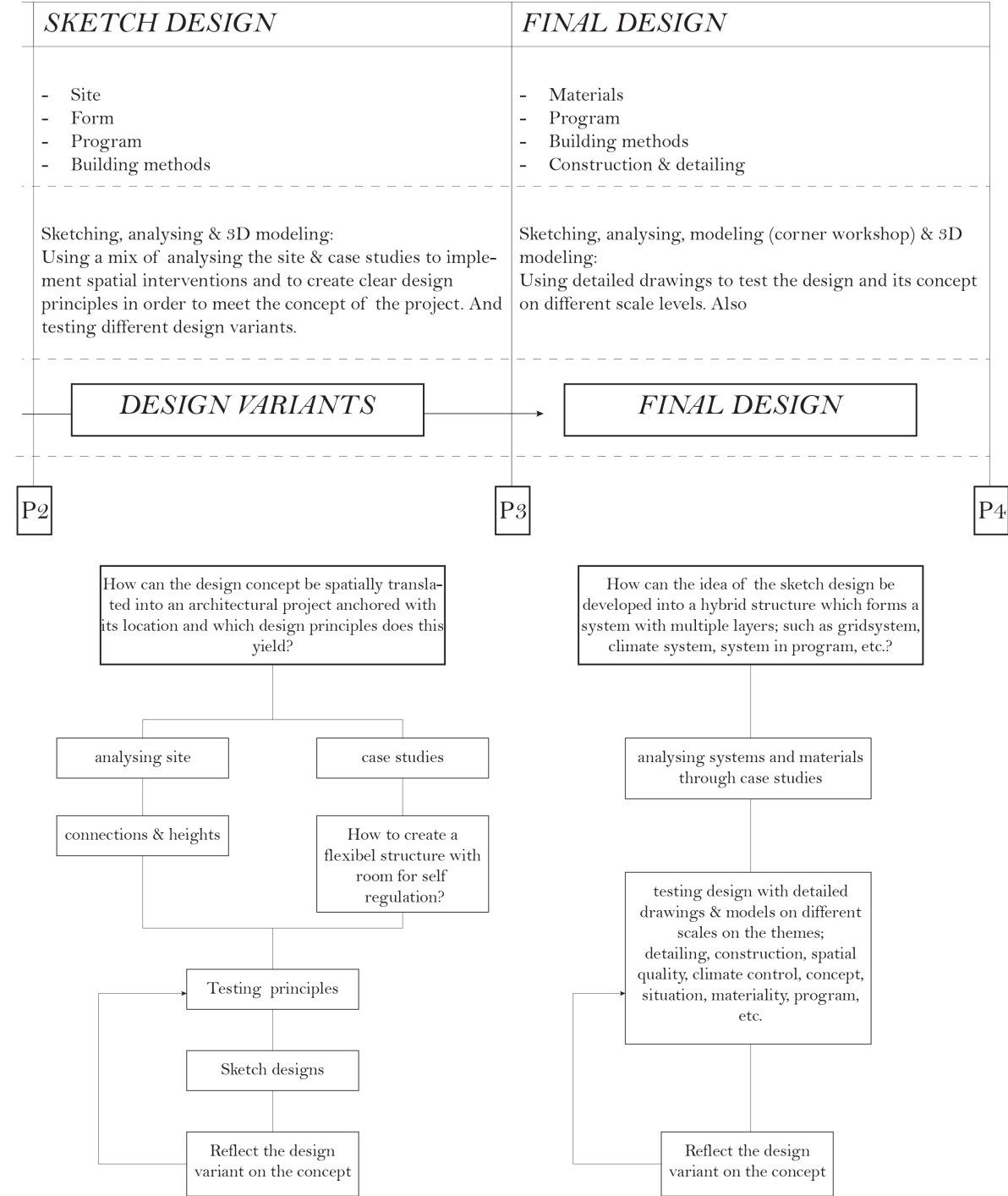


- 1. Research** - *The hidden informal world of Tarlabası*
- 2. Design Strategy** - *Modernising a migrant city*
- 3. Design** - *A hybrid shelter for informal practices*

ORIENTATION	EXCURSION	RESEARCH	MODI OPERANDI	DESIGN BRIEF
RESEARCH TOPICS <ul style="list-style-type: none"><li>- Border/migration</li><li>- Infrastructure/congestion</li><li>- Soil/fault lines</li><li>- <b>Water/aquifer</b></li></ul>	<ul style="list-style-type: none"><li>- The informal settlement</li><li>- Informal pratices</li><li>- Displacement of the poor / gentrification</li></ul>	<ul style="list-style-type: none"><li>- Site</li><li>- System</li><li>- Materials &amp; tectonics</li></ul>	<ul style="list-style-type: none"><li>- Site</li><li>- Assemblage</li><li>- Spatial situation</li></ul>	<ul style="list-style-type: none"><li>- Site</li><li>- Strategy</li><li>- Program</li></ul>
METHOD <p>Mapping topics in the Marmara region in group work devided over the B&amp;T studio</p>	Ethnographic research: field work by observing, photography, drawing & interviewing	Drawing, mapping & literature research: Analysing the site, how my topic is connected to a larger system & how it manifest itself in architecture/materiality via drawings and mapping. Also a paper is written via literature research	Model making: Analysing how the techniques of disassembling and reassembling can be used to create an architectural assemblage and how to lose control of a spatial situation in order to analyze the self-regulating aspect of the topic.	Conclusions research: Using the input of the research to translate it in a design strategy.
<div>WATER MAP</div>	<div>FIELDWORK DATA</div>	<div>DRAWINGS</div> <div>THEORY PAPER</div>	<div>2.5-D MODELS</div>	<div>DESIGN STRATEGY</div>



Research framework



Research framework

## **1. Research - *The hidden informal world of Tarlabası***

## 1.1 Site

gentrification

eviction

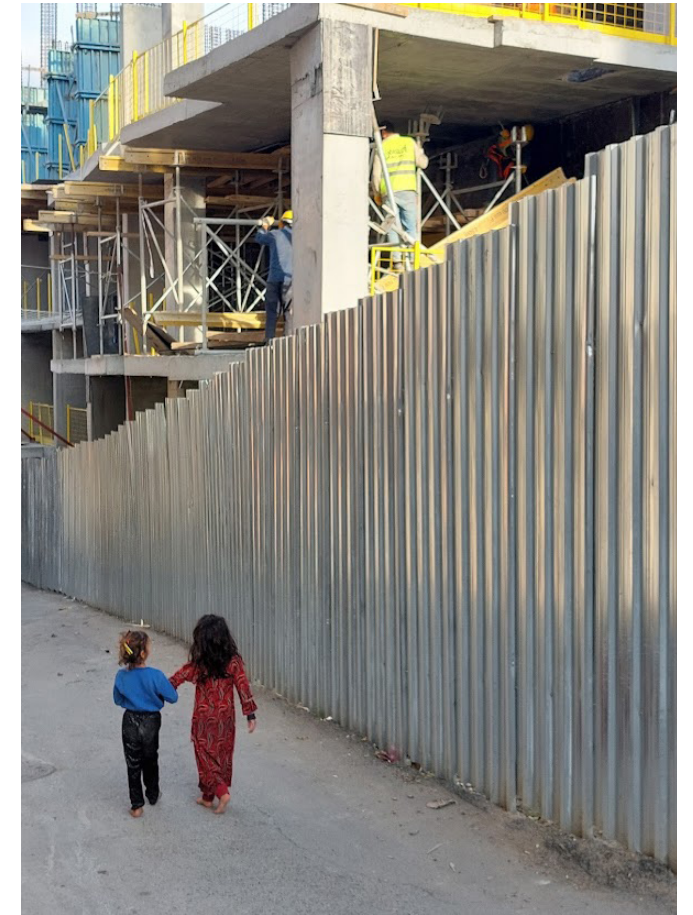
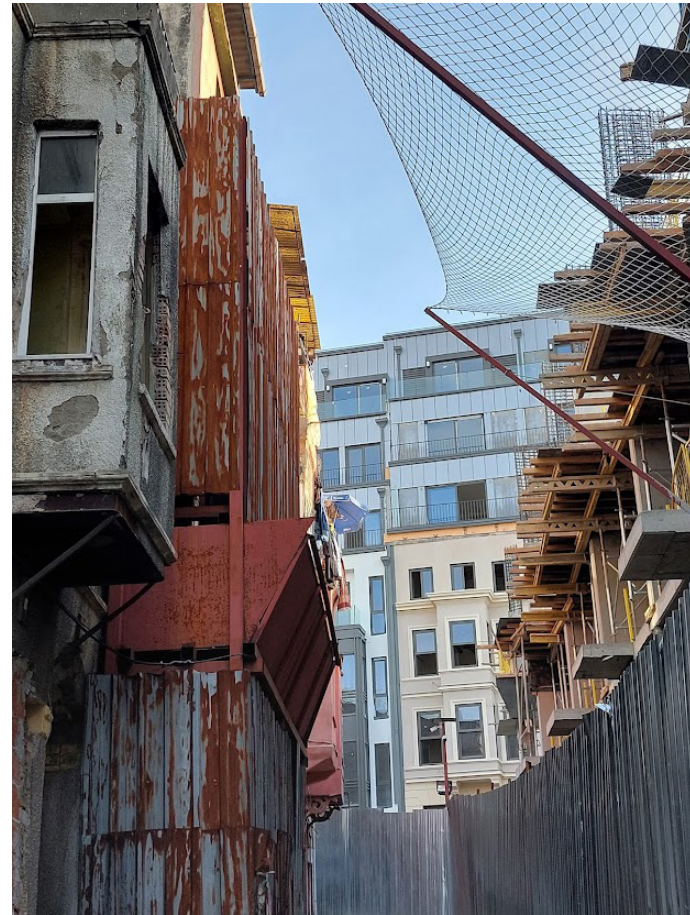
the hidden informal world





Istanbul; Tarlabası

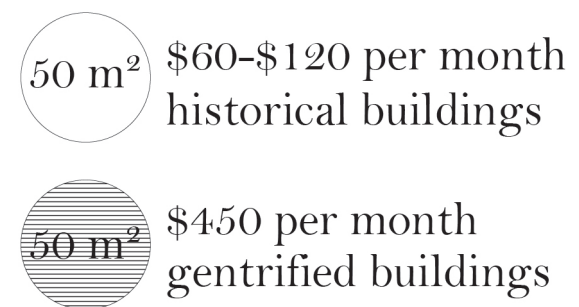




Gentrification in Tarlabası

Gentrification can be described as a process of reforming an existing inhabited area to accommodate a wealthier group, often at the expense of established cultural identity and poorer residents.

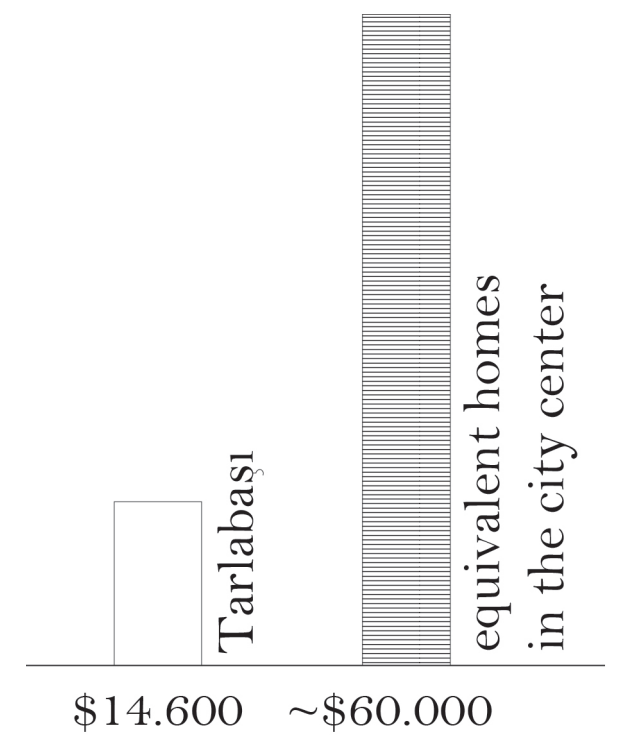




Rent gap










Expensive eviction option to the edge of Istanbul

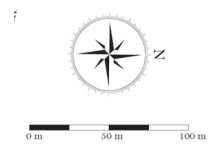


Eviction offer



### LEGENDA

-  building
-  gentrified buildings
-  demolition site gentrification
-  informal practice
-  Google Maps street view access
-  touristification
-  police station
-  Tarlabası community centre



The hidden informal world of Tarlabası





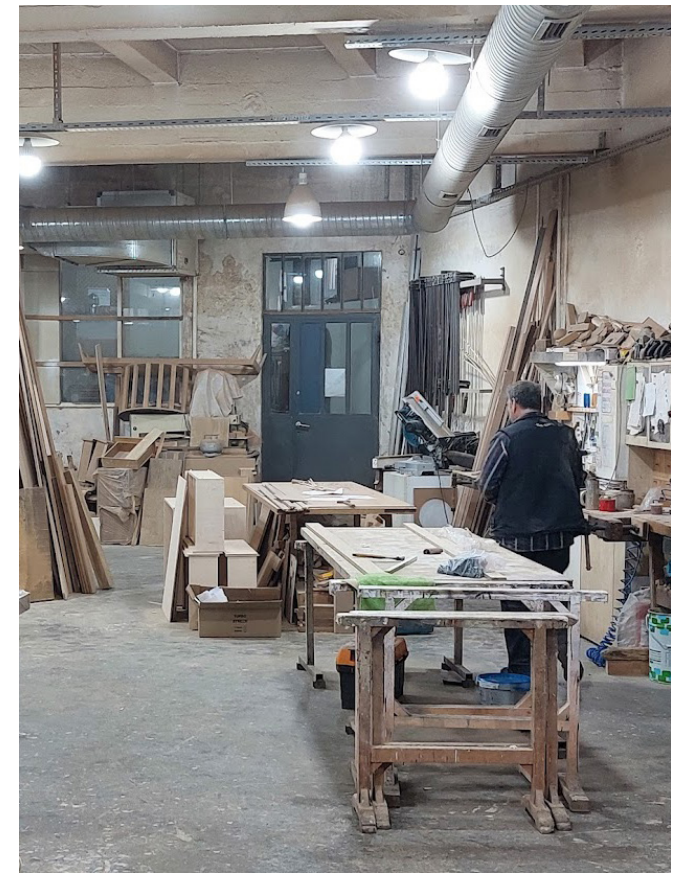
Informal clusters - waste picking & car repairation





Informal practices - çekçekçi & hurdacı





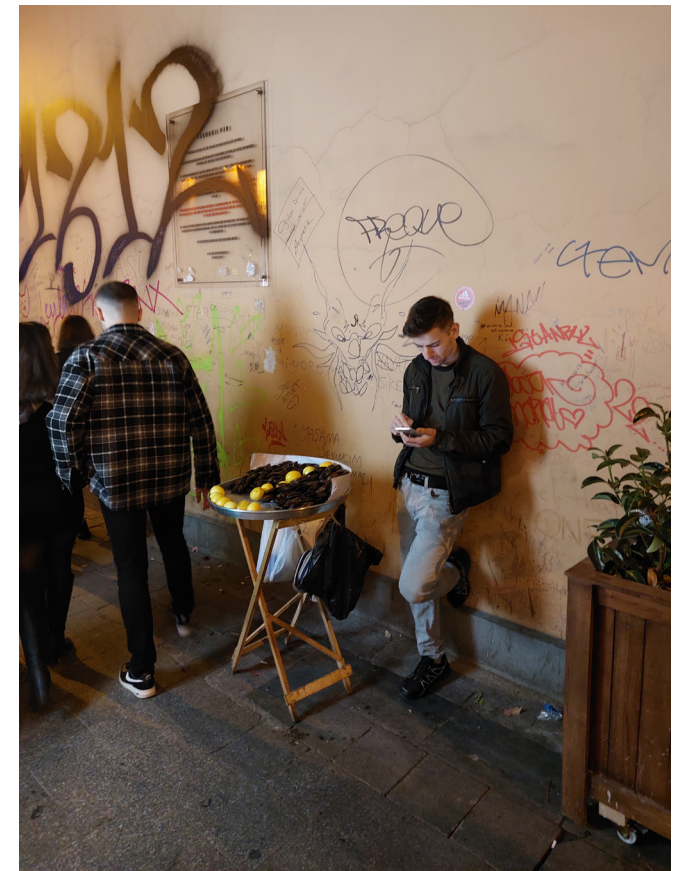
Informal practices - furniture & woodworkers





Informal practices - metal workers & jewelry makers

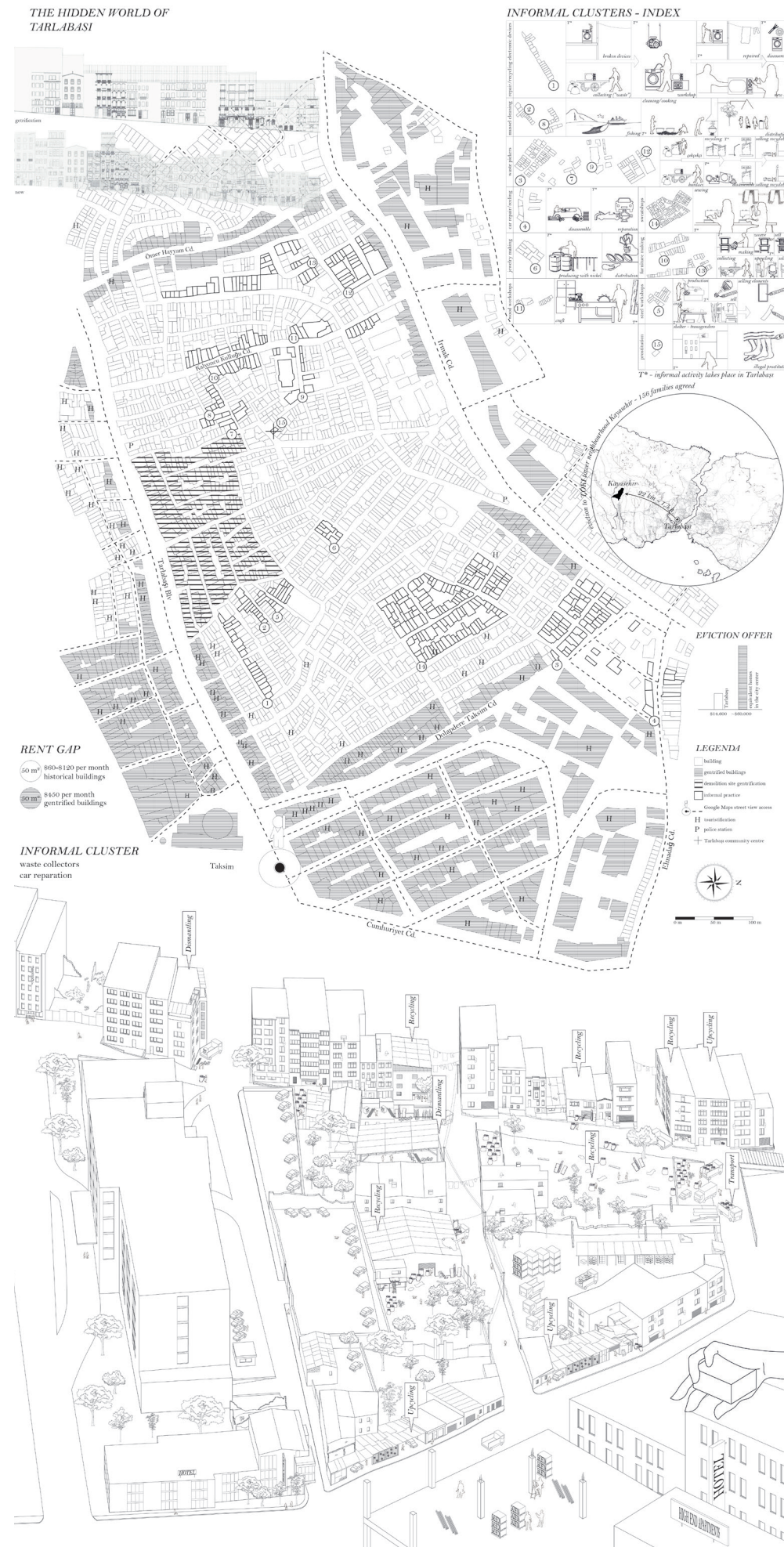




Informal practices - car repairation & mussel cleaning



THE HIDDEN WORLD OF  
TARLABASI



The hidden world of Tarlabası



## **1.2 System of Hemşehri**

the system of hemşehri  
spaces & hemşehri

# LEGENDA

- stage 1: area of potential eviction
- stage 2: planning process started
- stage 3: eviction ongoing
- stage 4: eviction completed
- stage 5: second wave of eviction

## LEVEL 3

Warehouse owner

- 1 ₺ per kilo plastic
- 5 ₺ per kilo steel
- warehouse
- reach
- wood
- plastic
- glass
- paper
- special finding
- local market
- copper
- iron
- aluminum
- waste items for upcycling
- processed waste flow

## LEVEL 2

The connected waste picker

- 0,50 ₺ per kilo plastic
- wastepicker
- reach
- waste pick up point connection; offices, etc.
- household waste collecting at the door
- garbage bin
- household waste drop-off point
- waste picker route

## LEVEL 1

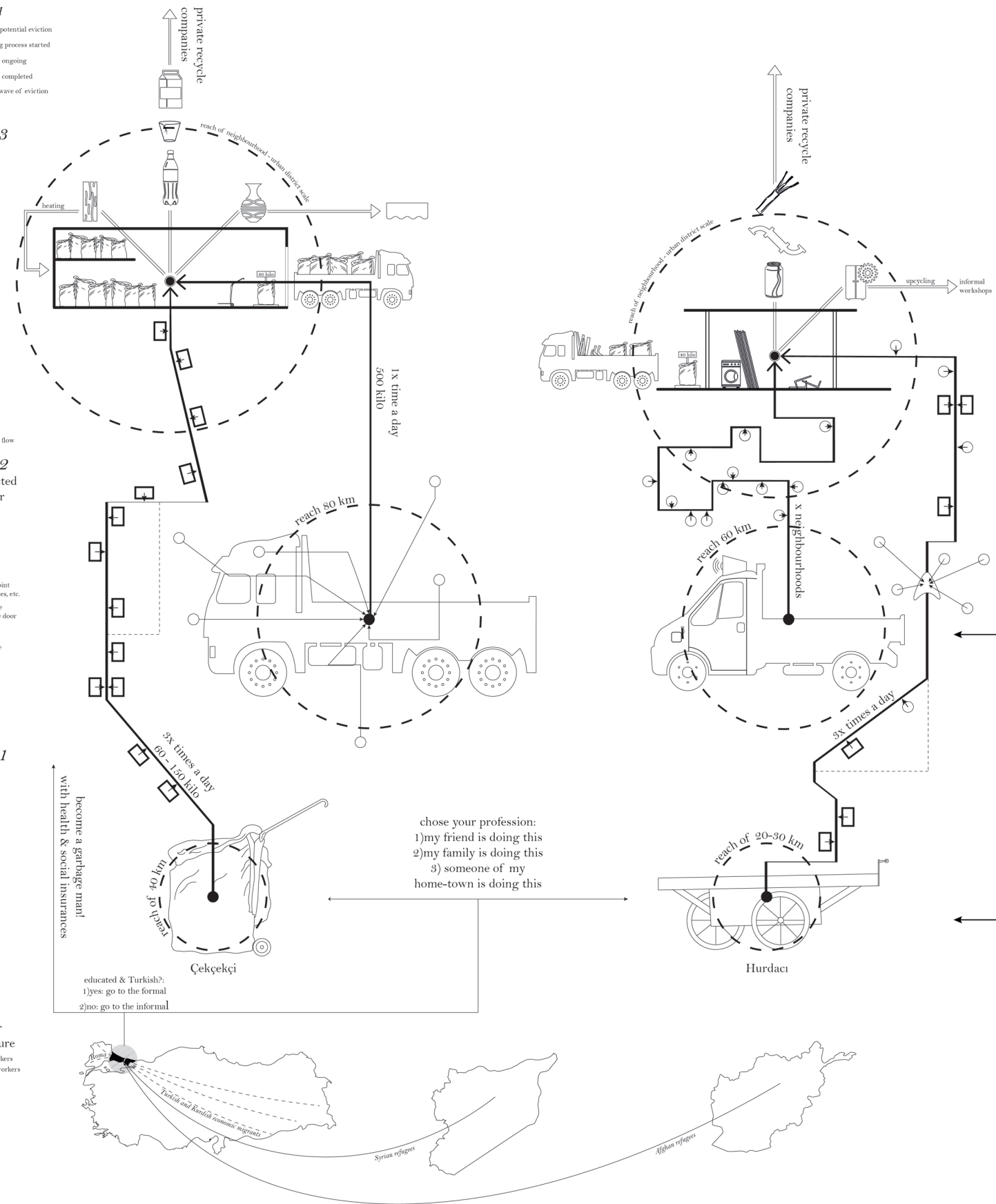
Beginner

- 0,60 ₺ per kilo plastic
- wastepicker
- reach
- waste picker route
- flexible route

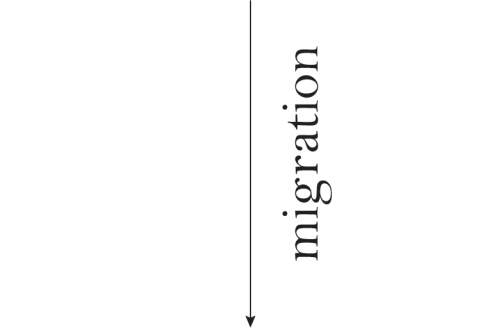
## START

Looking for a better future

- seasonal workers
- permanent workers



The informal side of waste



work & housing  
in Istanbul

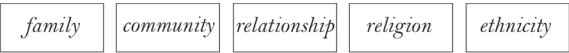
- 
- A vertical arrow pointing downwards.
- craft
  - waste picking
  - sweatshops
  - mussel cleaning
  - sex work

The phenomenon of hemsehri:  
common identity and solidarity between immigrants & settlements

THE SYSTEM OF HEMŞEHRI (SHARED HOME-TOWN)

the phenomenon of hemşehri:

common identity and solidarity between immigrants & settlements



shared home-town

migration

work & housing  
in Istanbul

KURDS AS ARKA HAMALI  
1800-1930's  
home-town

waste pickers & hemşehri:

seasonal workers

3 months  
ISTANBUL  
çekçekçi - 4 years



living & working  
ALI AND FAMILY  
warehouse owners

1 month  
MIDYAT  
farmer - 24 years

family father  
6 sons  
ethnicity 3 Kurds

living  
with family

3 months  
ISTANBUL  
çekçekçi - 2 years



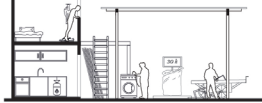
living & working  
EMRE AND BROTHERS  
warehouse owners

2 months  
ASKARAT  
farmer - 30 years

family brothers  
sons  
total 20  
living  
with family

permanent worker

ISTANBUL  
huradacı - 15 years



colagues live in warehouse  
FURAK AND COLLAGUES  
warehouse owner

NIĞDE  
farmer - 9 years

community Ukranian refugee  
old hurdacı  
home-town old friends  
total 5

permanent worker

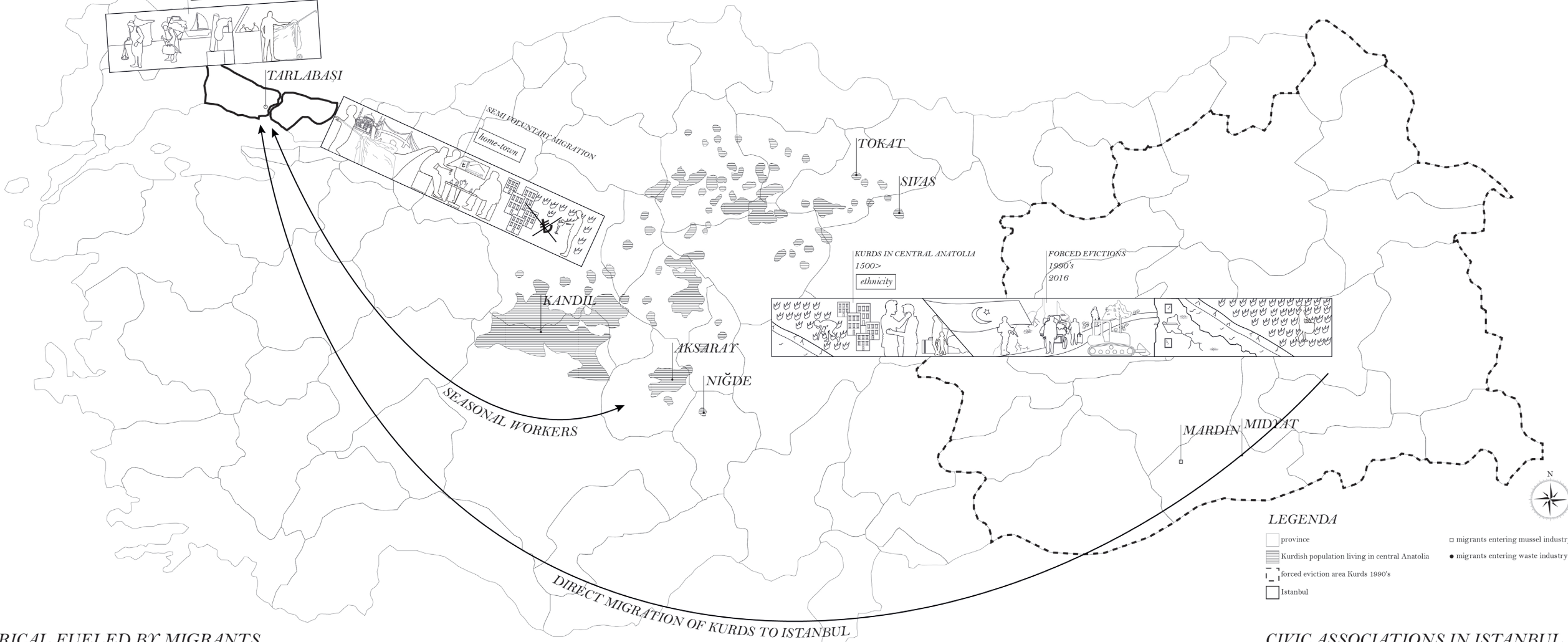
ISTANBUL  
çekçekçi - 50 years



Mustafa lives in warehouse  
MUSTAFA AND FRIENDS  
waste picker

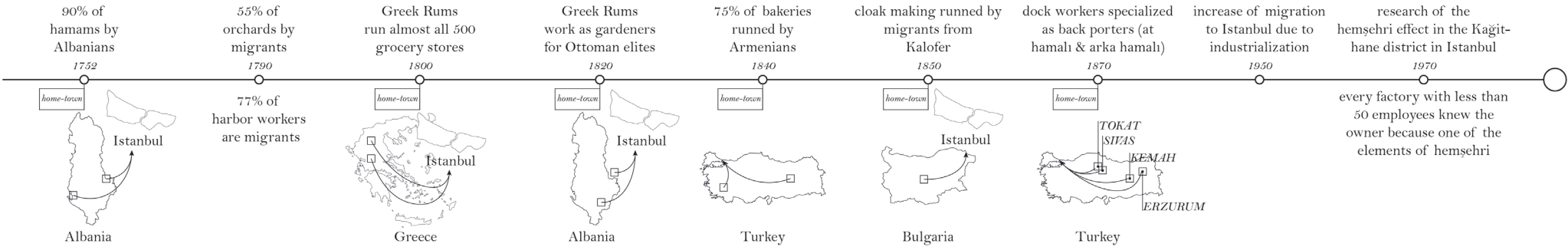
TOKAT  
construction - 6 years

home-town construction  
worker  
community friends introduced  
him

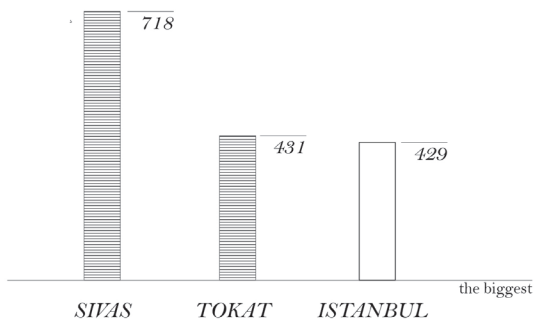


HISTORICAL FUELED BY MIGRANTS

made possible by hemşehri



CIVIC ASSOCIATIONS IN ISTANBUL



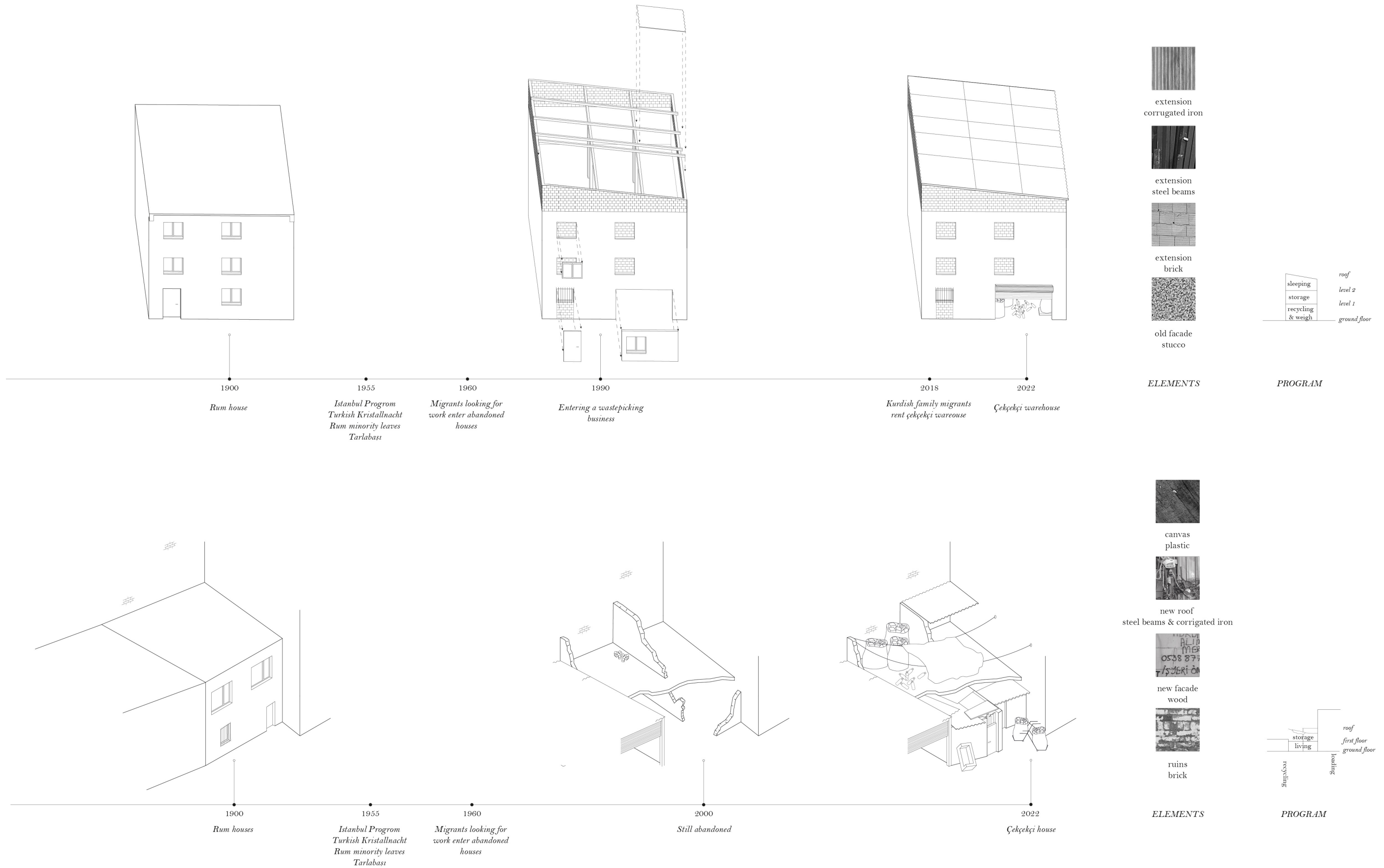
The system of hemşehri

### **1.3 Informal materials & tectonics**

informal typologies

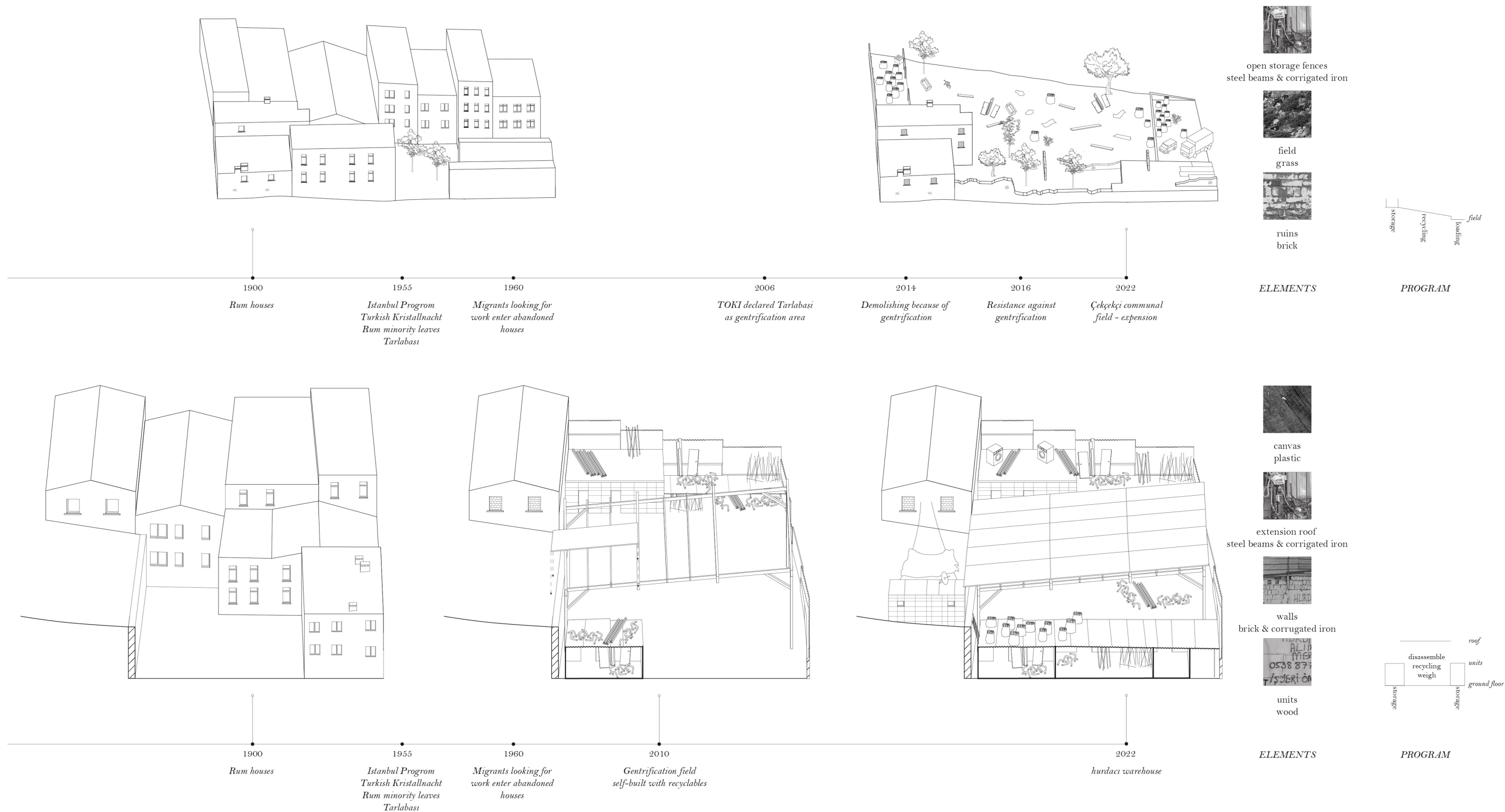
global informality

informal elements

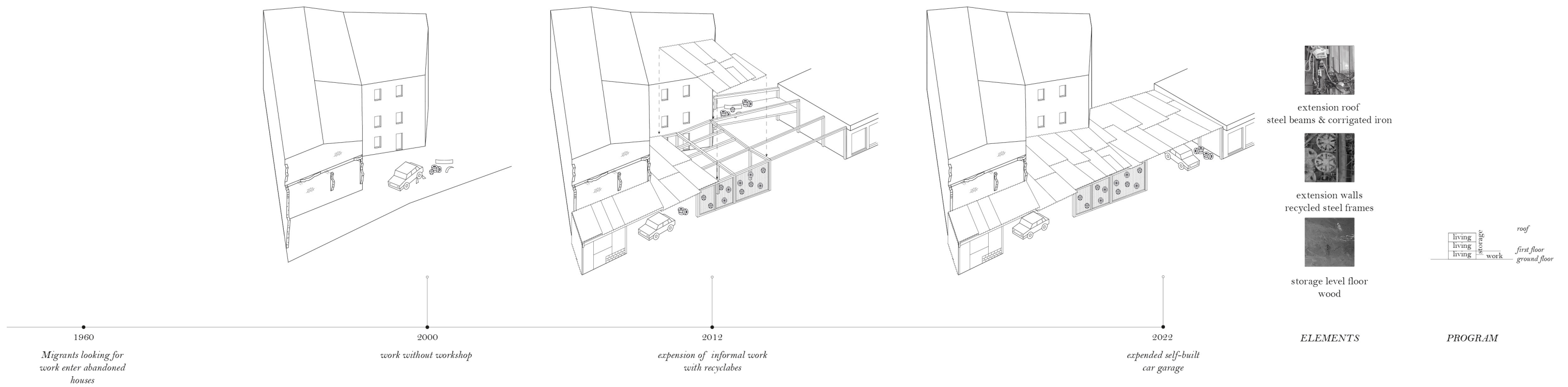


## Informal workplaces - the transformed Rum dwelling



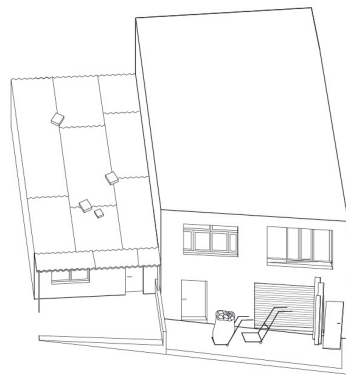


## Informal workplaces - the communal çekçekçi field & the self-built hurdacı warehouse



## Informal workplaces - growing car repairation business

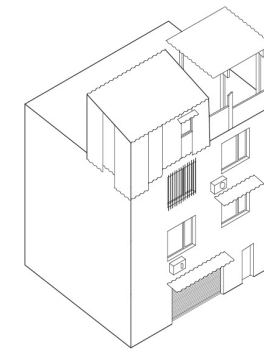




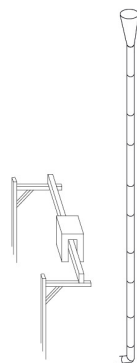
*Turkey*  
*transformed and self-built*



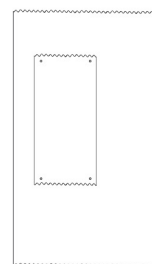
*Ghana*  
*mainly self-built*



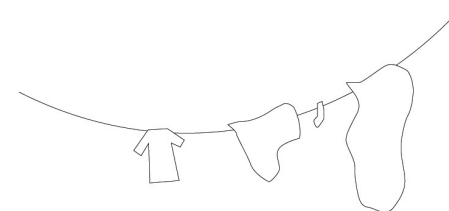
*India*  
*transformed and self-built*



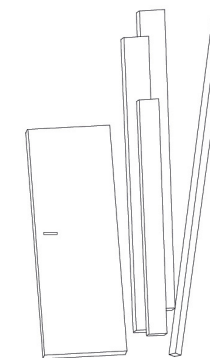
*self regulating structures*



*adequate*

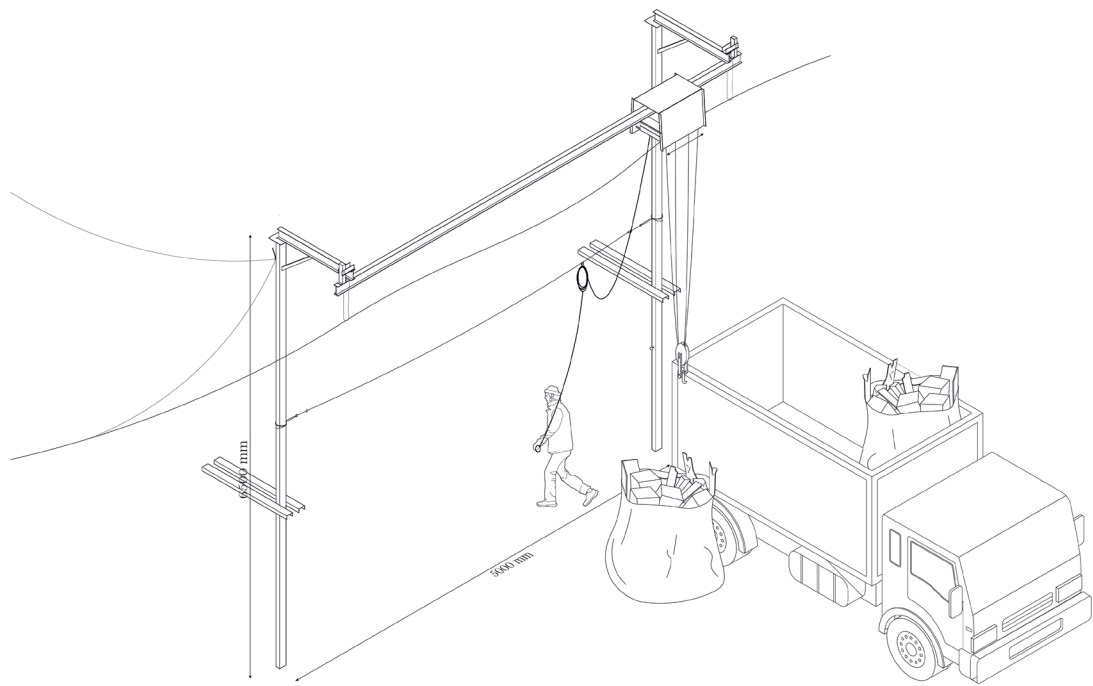


*communal structures*

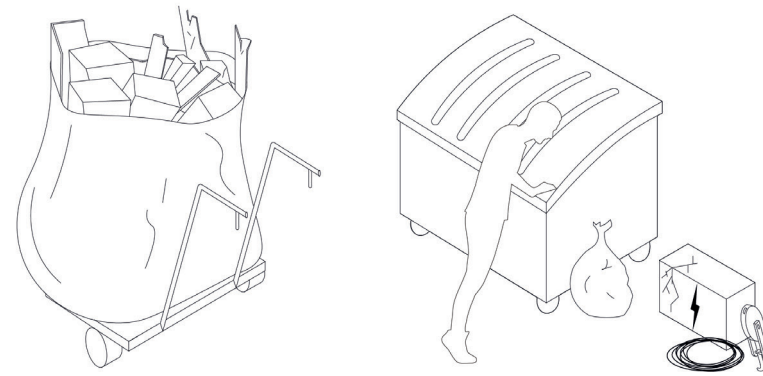


*re-use and upcycle*

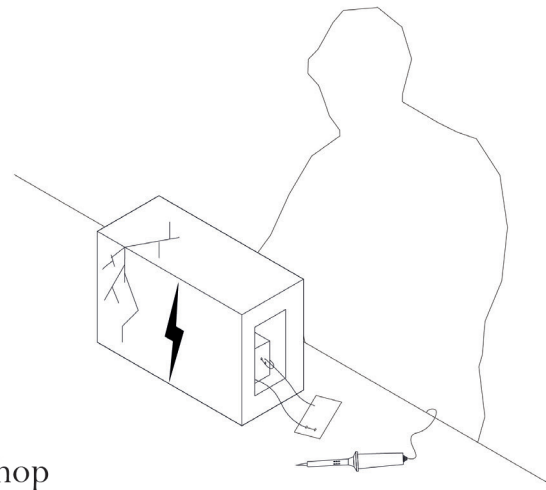
## Global informality & elements



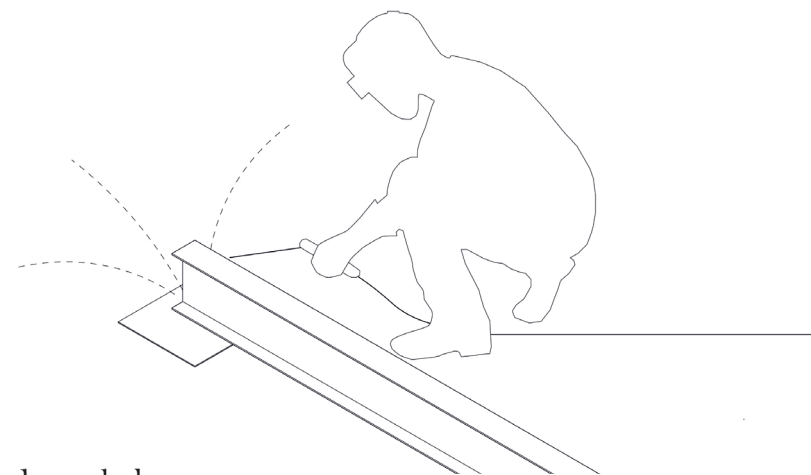
çekçekçi  
collecting items for  
the crane



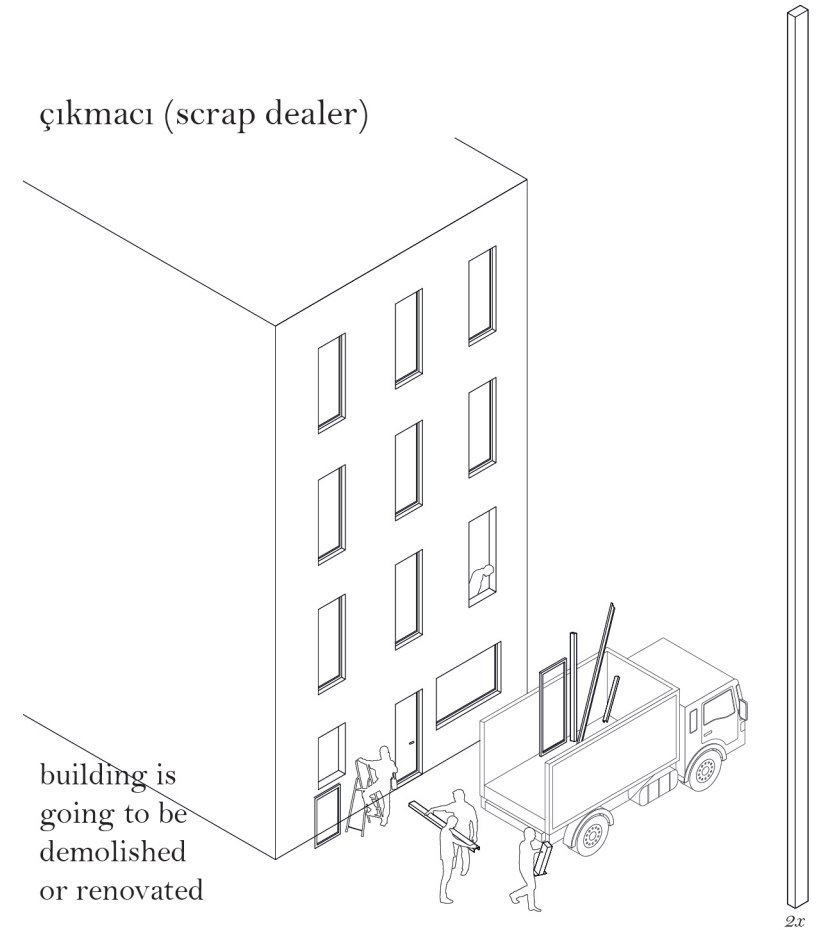
repair shop  
repairing electrical  
devices



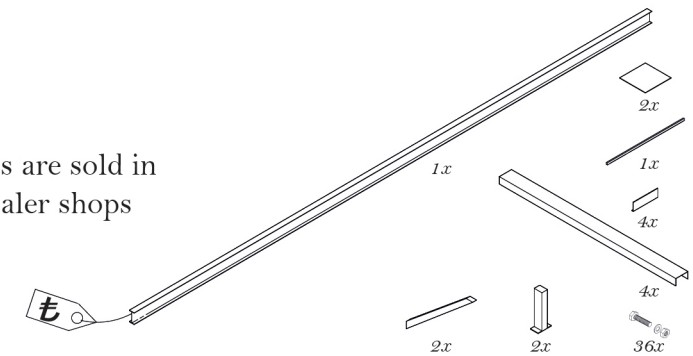
metal workshop  
welding of  
construction



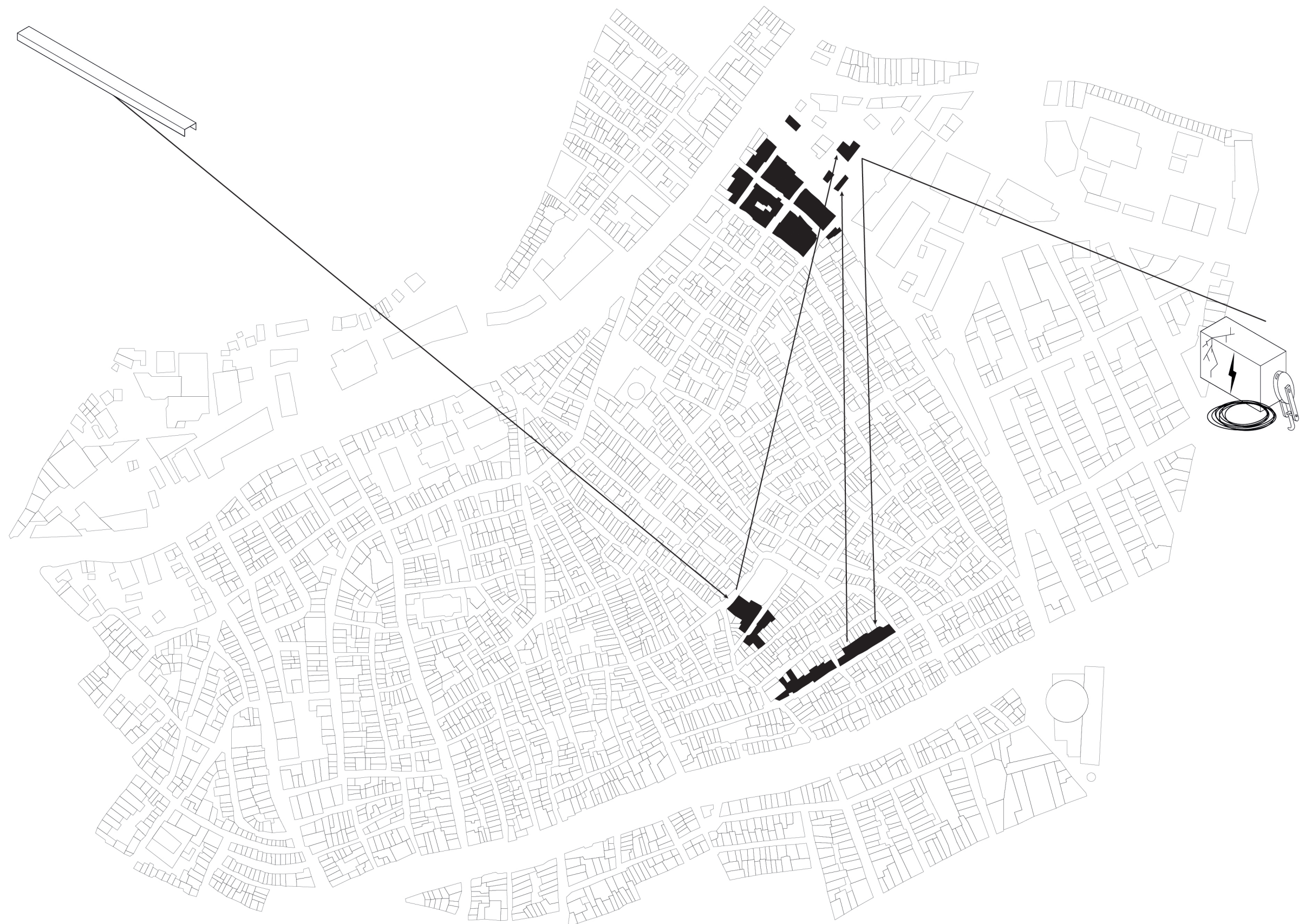
çıkmacı (scrap dealer)



materials are sold in  
scrap dealer shops

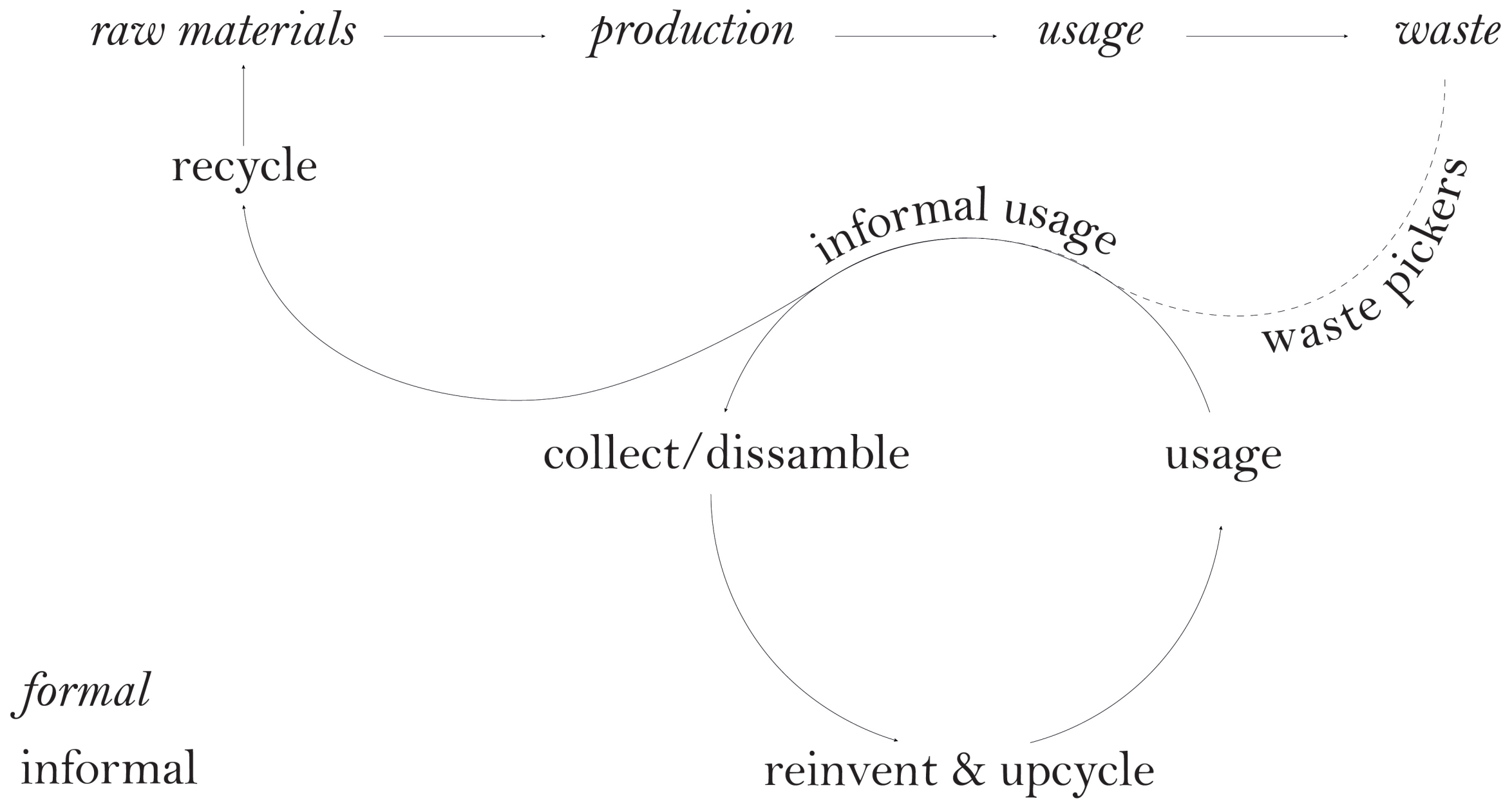


## Informal tectonics - the reinvented crane



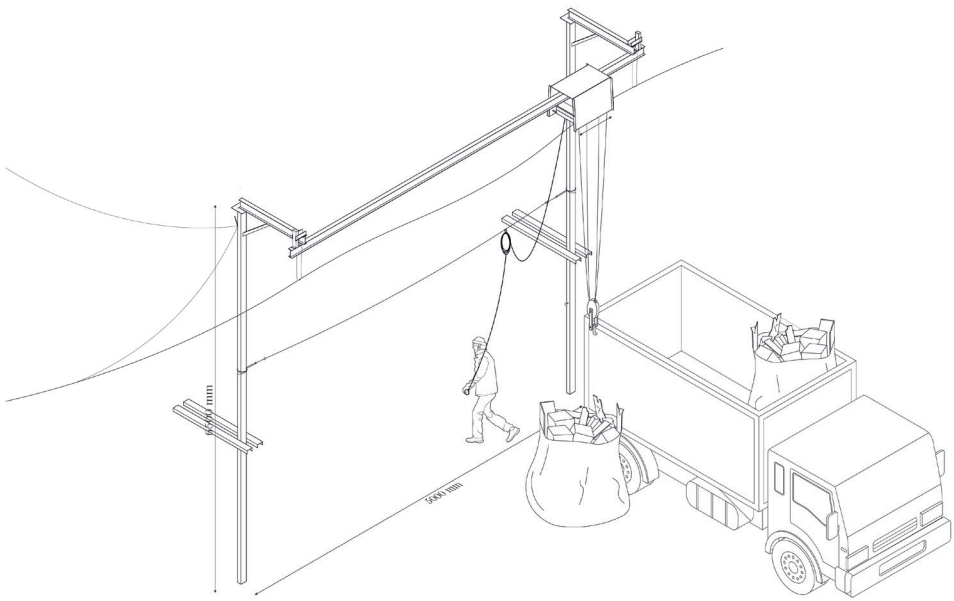
Informal tectonics - the route of the crane



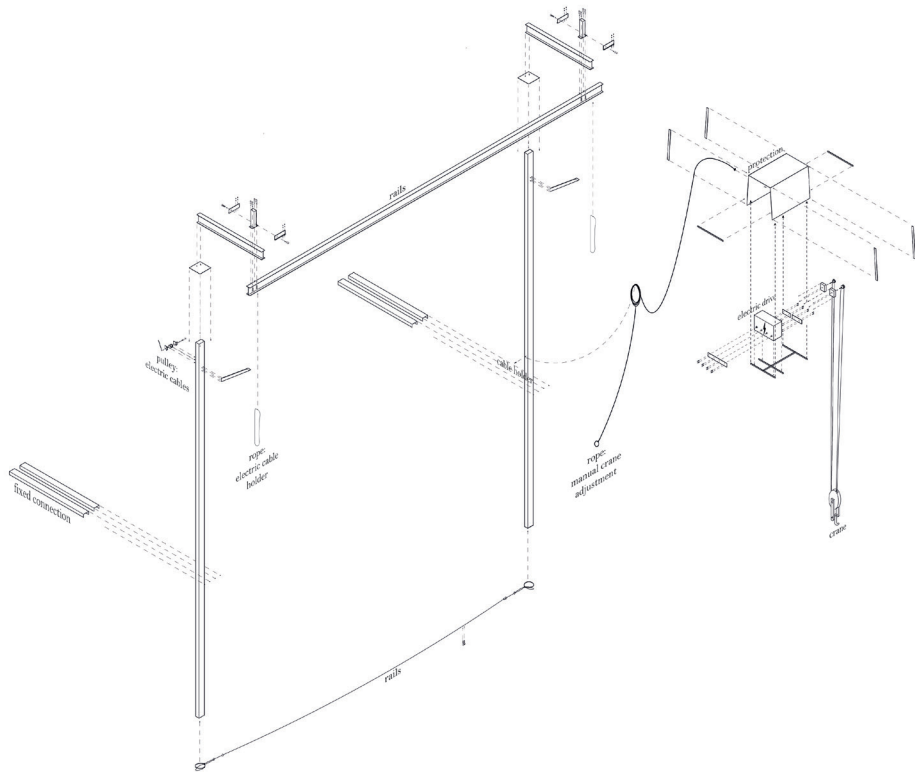


RECYCLE AND REINVENT

the reinvented crane

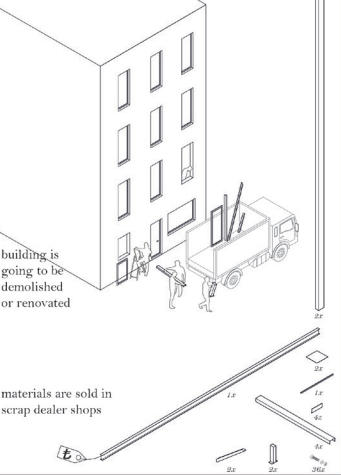


the reinvented crane - exploded

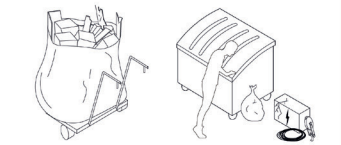


PROCESS OF CRAFT

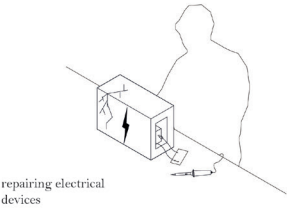
çıkmacı (scrap dealer)



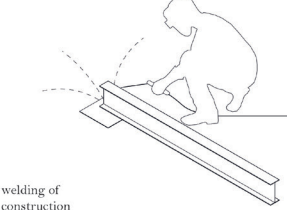
çekçekçi



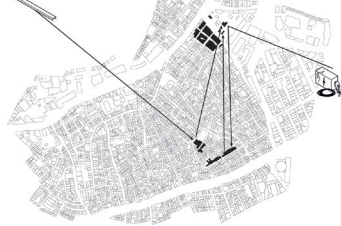
repair shop



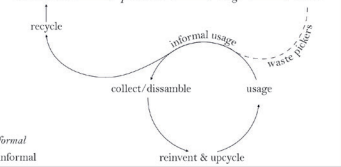
metal workshop



route of the crane



completing the circle



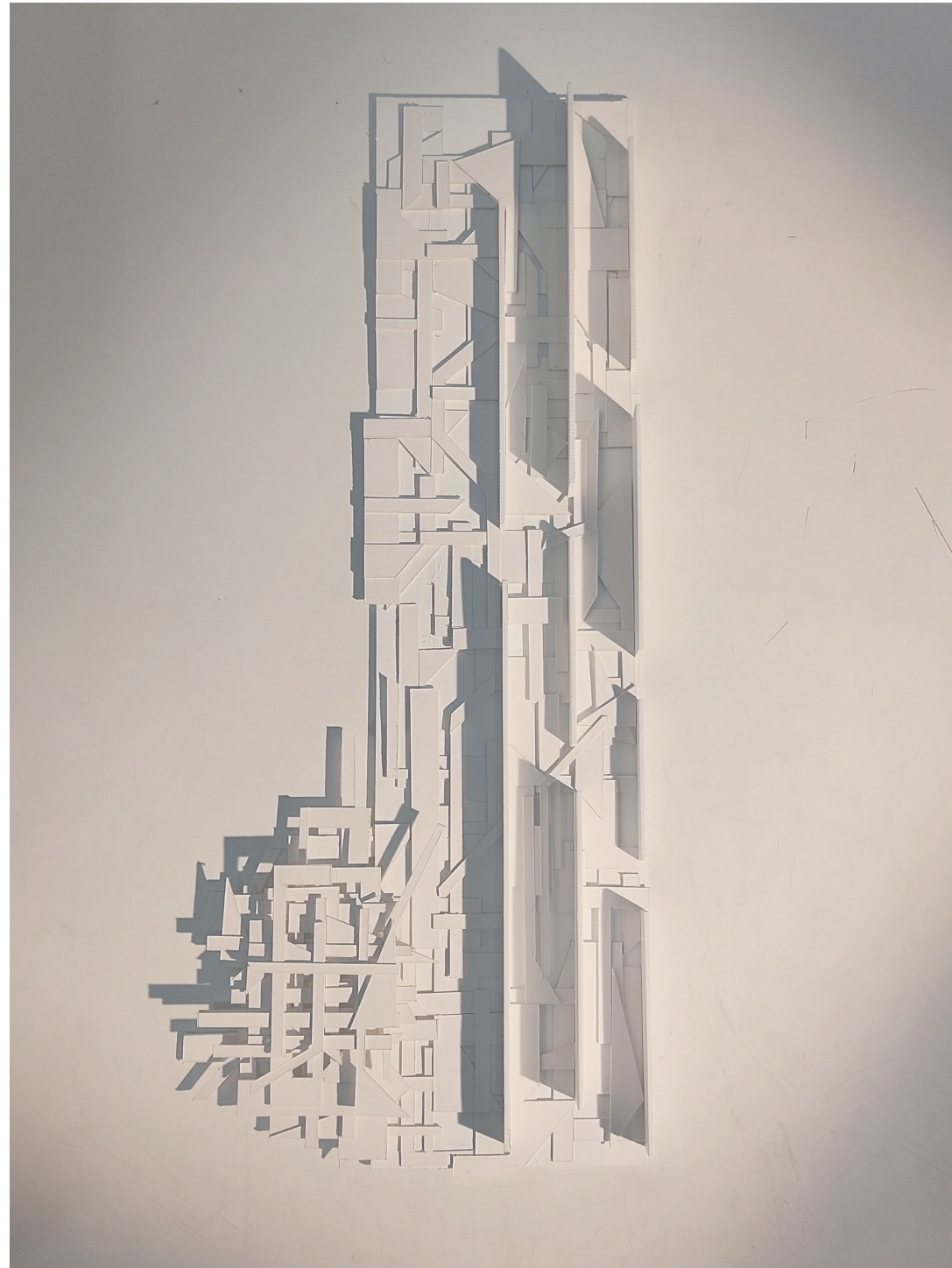
The system of informal tectonics

## **1.4 Modi Operandi Analysis Models**

spatial Situation

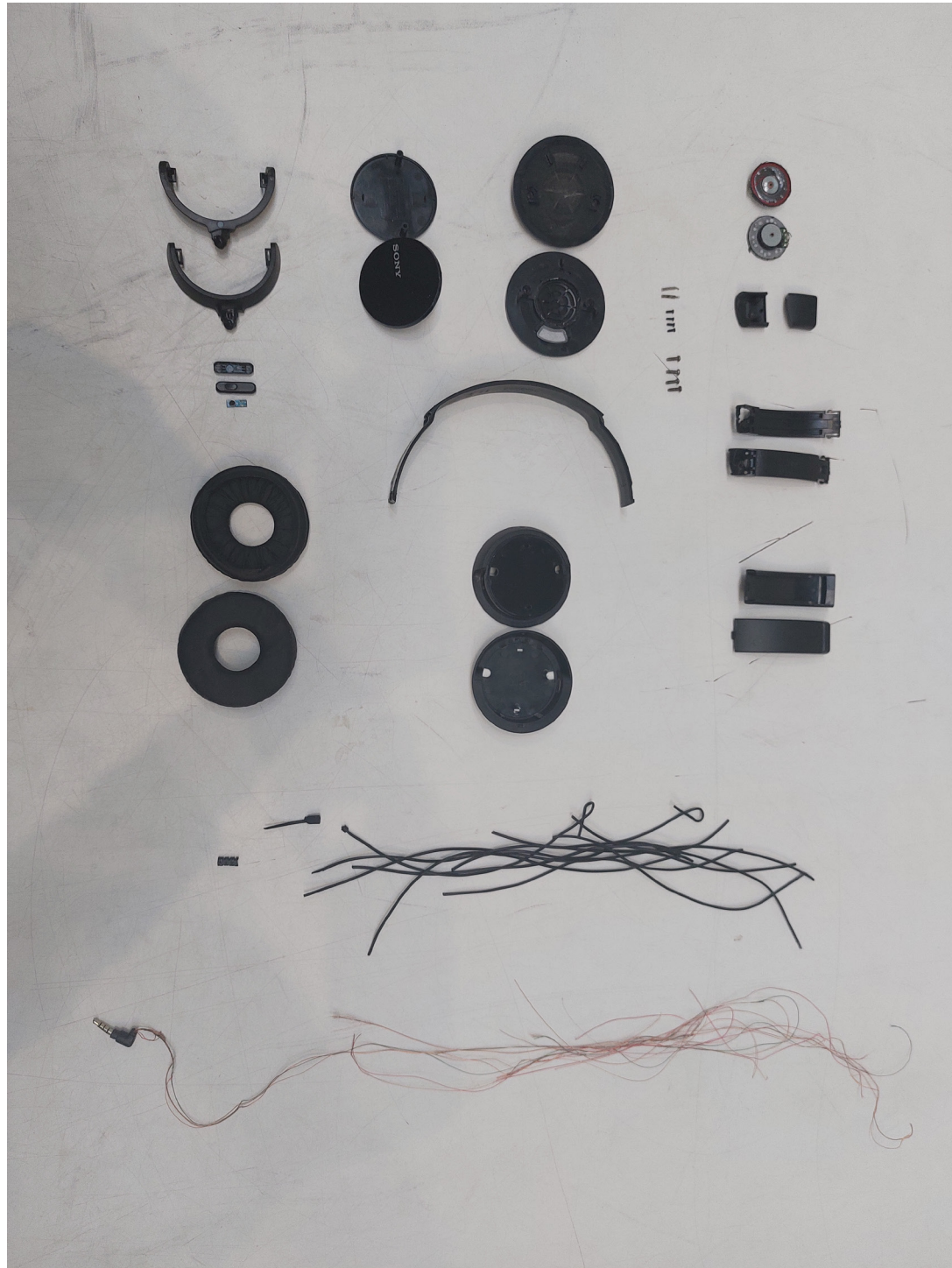
How to lose control over a spatial situation?





Spatial situation - strip, field, 3 dimensional





## Assemblage - disassembling





Assemblage - reassembling





## 1.5 Conclusions

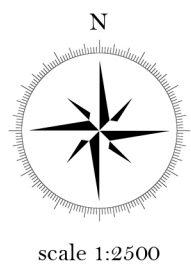


*Rem Koolhaas on the informal settlement:*

“The result is a theoretical, critical, and operational impasse [...] the entire discipline possesses no adequate terminology to discuss the most pertinent, most crucial phenomena within its domain nor any conceptual framework to describe, interpret, and understand exactly those forces that could redefine and revitalize it” (Prieto, 2021, p.20).

*Alejandro Aravena:*

“As architects, we live in a time of shifting paradigms [...] and this calls for a new, more open approach. That’s why I’m so interested in how architects and urban planners deal with other areas - economics, safety, environment and so on. Our challenge must be to go beyond architecture and speak the languages of these other disciplines, before translating our discussions into formal design proposals” (Prieto, 2021, p.20).



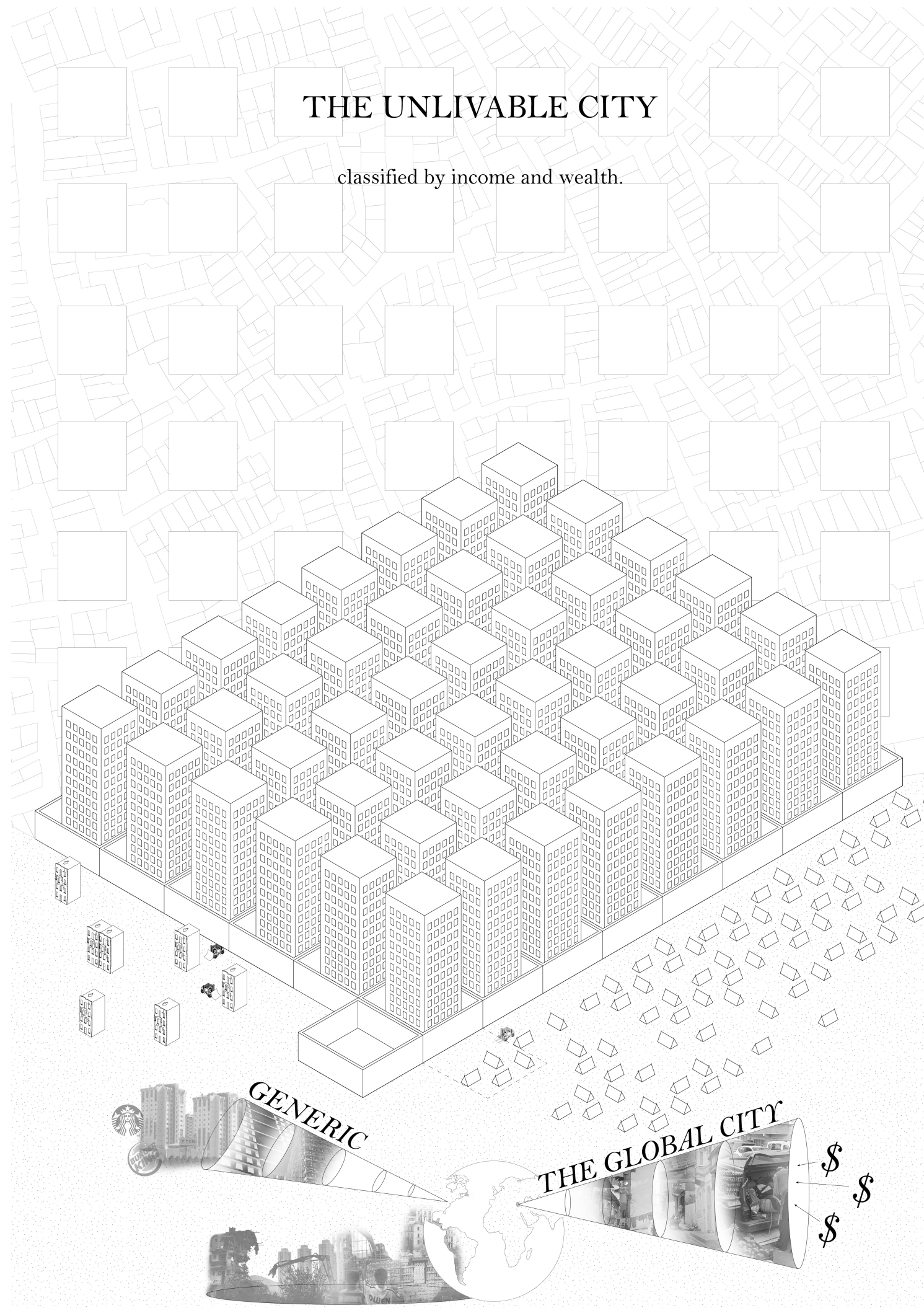
- LEGENDA**
- Istanbul
  - city centre
  - informal sprawl
  - informal return to centre
  - formal sprawl

The future; becoming a migrant in your own city, displaced by gentrification



# THE UNLIVABLE CITY

classified by income and wealth.

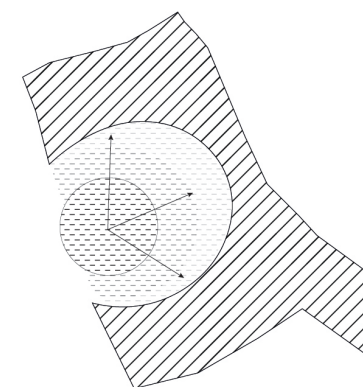
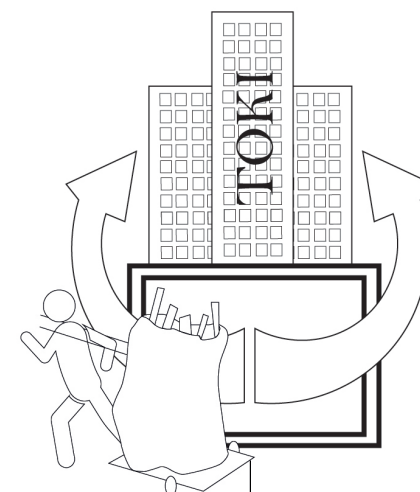
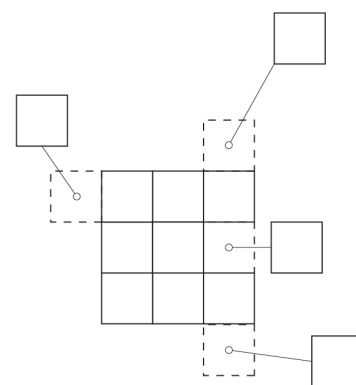
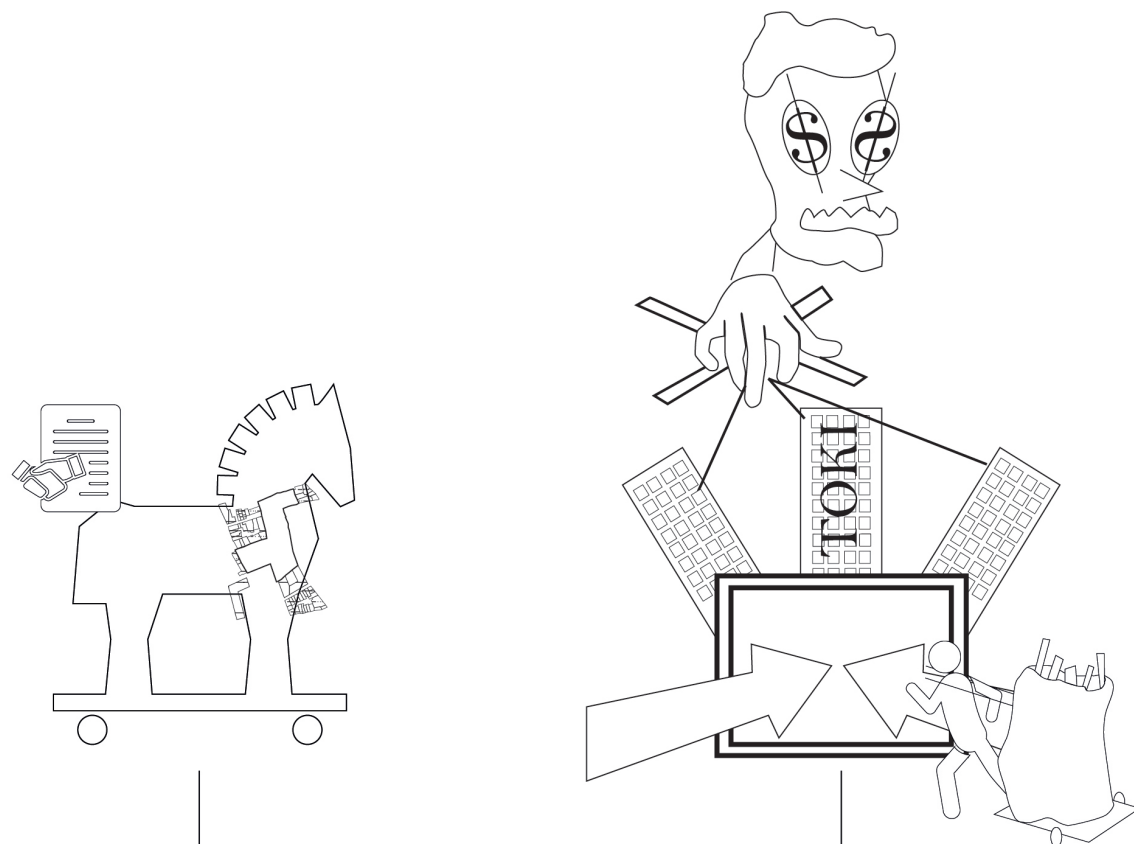


## **2. Design Strategy - *Modernizing a migrant city***

Site

Design Strategy





IMPACT AND TIME



### EXCHANGE

Exchange without resistance between the construction site of the gentrification developer and the whole neighbourhood of Tarlabası

### NEW TYPOLOGY

A hybrid structure forming a shelter for the informality & the poor creating its informal micro economy

### GROWING

The hybrid structure can grow with space for self-regularity

### DECREASING RENTS

The hybrid structure decreases rents of gentrified apartments around the territory of the poor

### ACTIVIST STRUCTURE

Reviving the neighbourhood of the poor, creating awareness & blurring of the division between formal and informal

A new strategy

The design forms a shelter for informality, with a new typology providing space for the accommodation of informal practices related to recycling, dismantling, repair and upcycling. The design serves as a hybrid structure, with room for self-regulation, creativity and craftsmanship & community spaces. In addition, the design offers an anonymous safe haven for minorities and the poor, as Tarlabası has functioned for decades.



A new typology

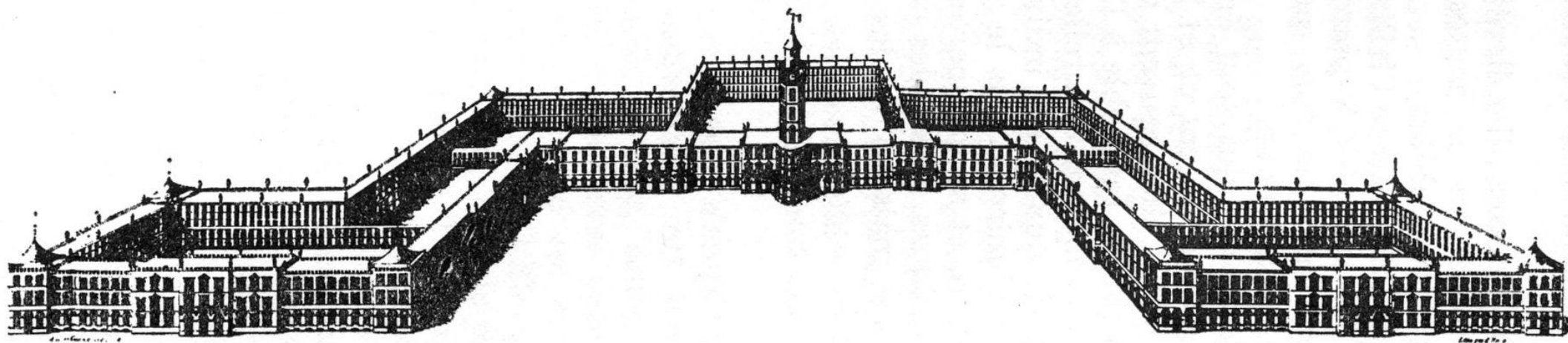




*Reproduction de la publication du journal "L'Avenir"*

# L'AVENIR.

Perspective d'un Phalanstère ou Palais Sociétaire dédié à l'humanité.



Le Phalanstère - self-contained utopian community





Site - the gentrification construction pit

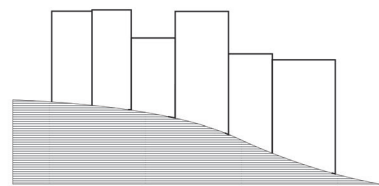
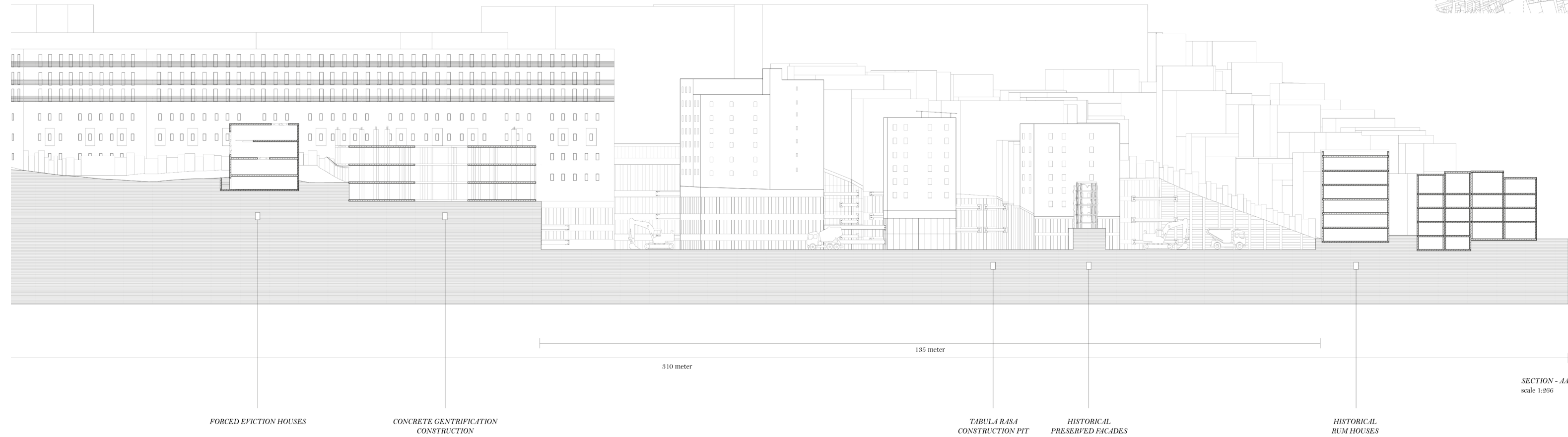
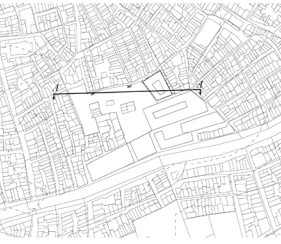




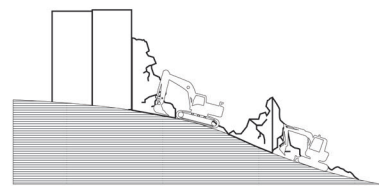
*Photo by Tatiana Mavromati*

Site - the tabula rasa construction pit

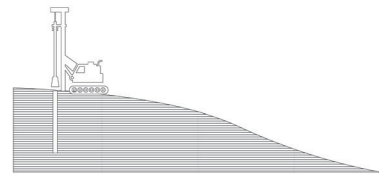




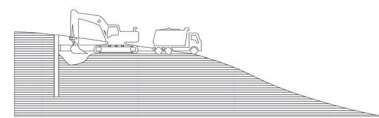
HISTORICAL NEIGHBOURHOOD



DEMOLITION OF OLD RUM HOUSES



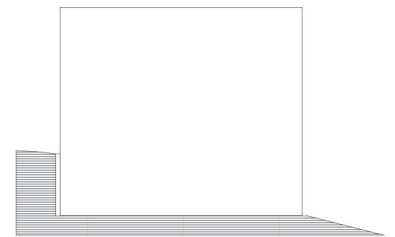
PIILING OF EDGES OF CONSTRUCTION SITE



EXCAVATION OF CONSTRUCTION SITE



EXCAVATED CONSTRUCTION SITE CURRENT SITUATION



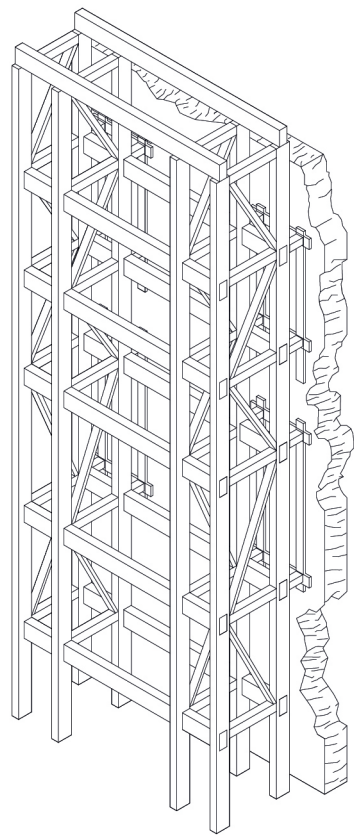
GENTRIFIED BUILDING BLOCK

Site - the tabula rasa construction pit

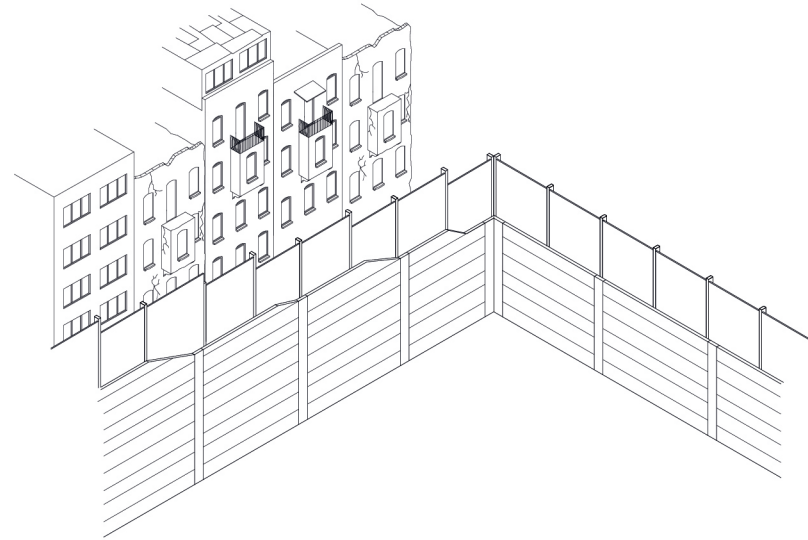


The in-between can be conceived as a place where different things can meet and unite, or more specifically, as the common ground where conflicting polarities can again become twin phenomena.

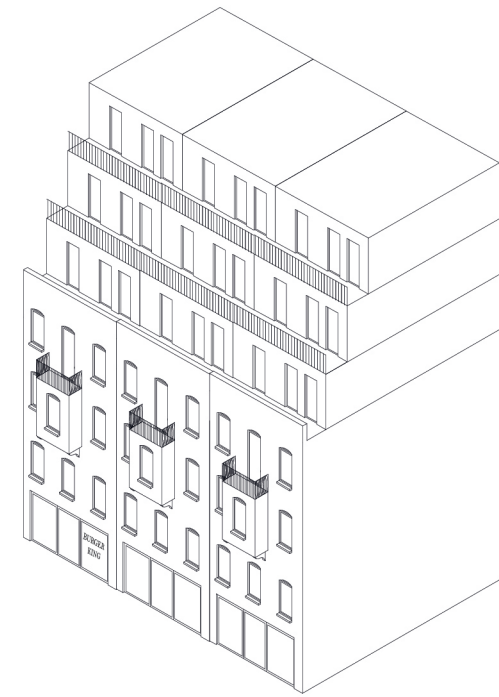
(Francis Strauven (2007), in study centre mellon lectures)



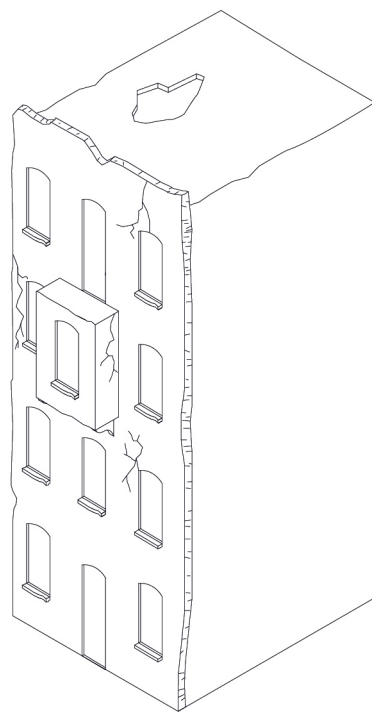
Historical preserved facades



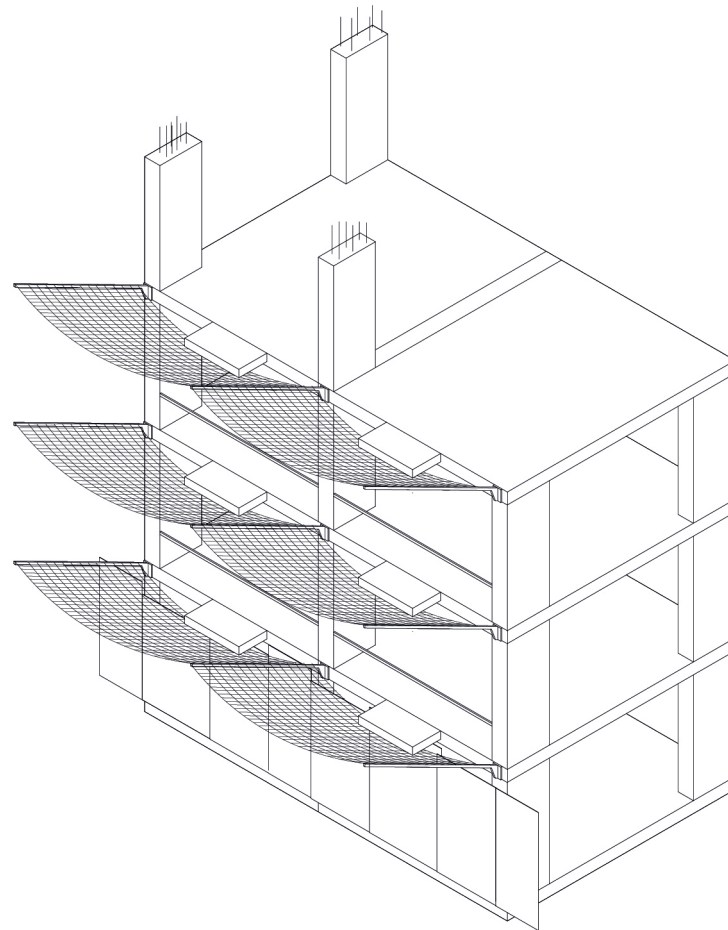
Tabula rasa construction pit



Gentrified buildings



Forced eviction houses



Concrete gentrification construction

Site - Traces of history & the planned future



### **3. Design - *A hybrid shelter for informal practices***

3.1 Concept

3.2 Site Plan

3.3 Floorplans

3.4 Anatomy

3.5 Catalogue

3.6 The operation

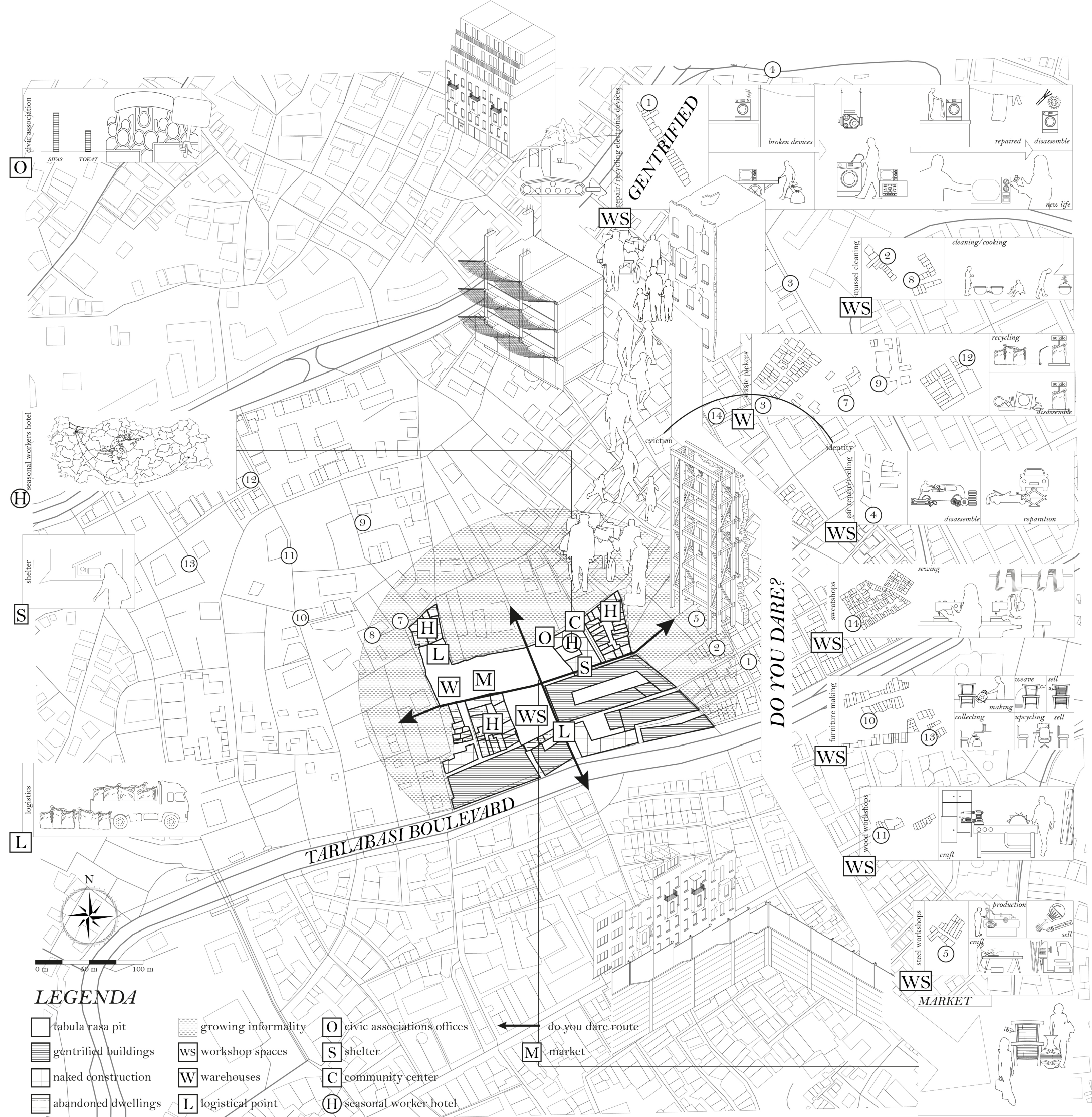
3.7 Scale of flexibility

3.8 Completion - Occupation - Resilience

### **3.1 Concept**

A hybrid structure





## **3.2 Site plan**





Phase 0 - Site



Phase 1 - Re-connect via bridge





Phase 2 - Completion of the hybrid structure, seasonal workers hotel & occupation





Phase 3 - Adding internal logistical connection & Do You Dare Route





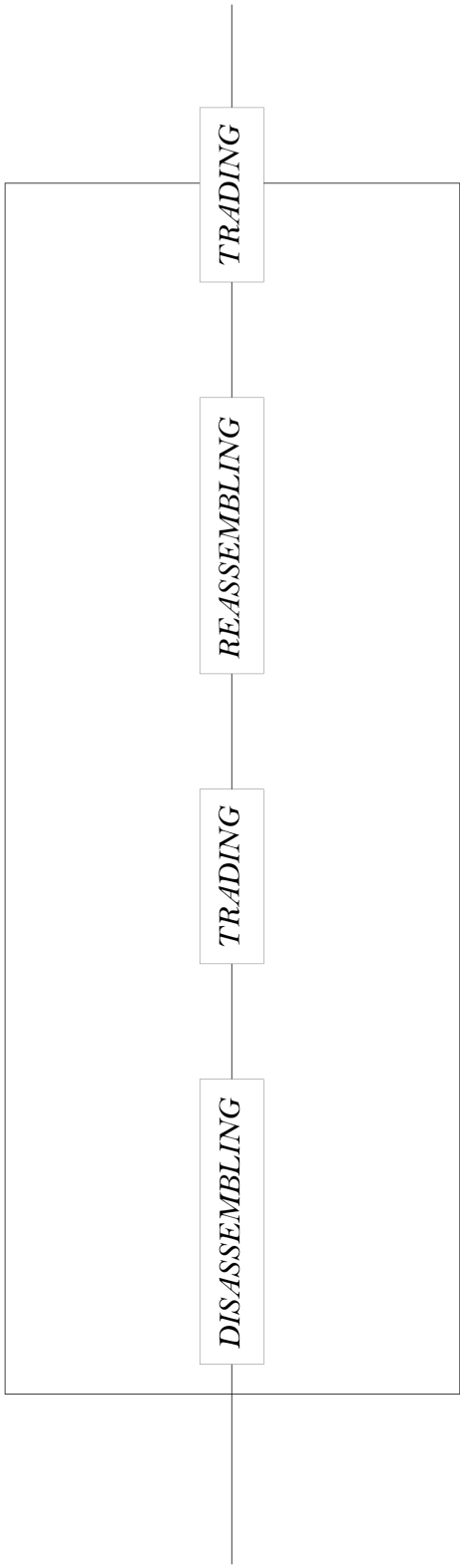
Phase 4 - Resilience (?)



Site plan

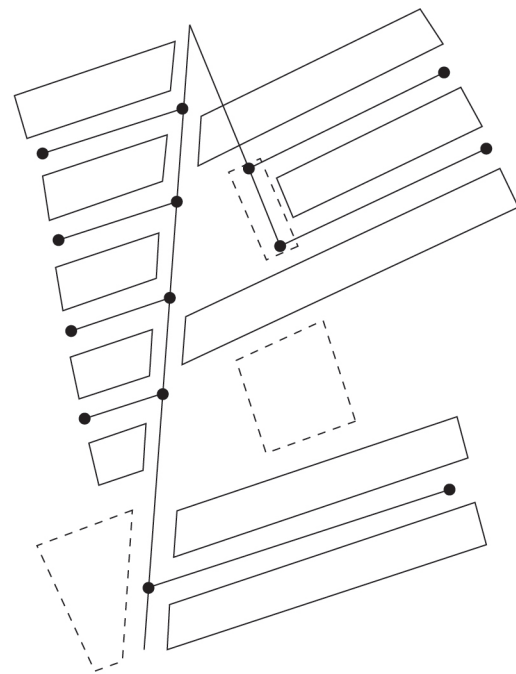


### **3.3 Floorplans**



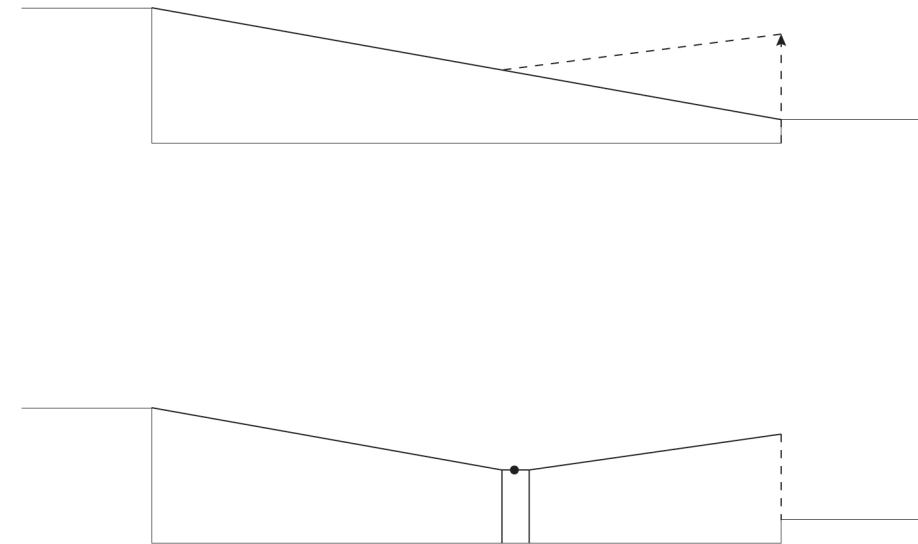
*SYSTEM*





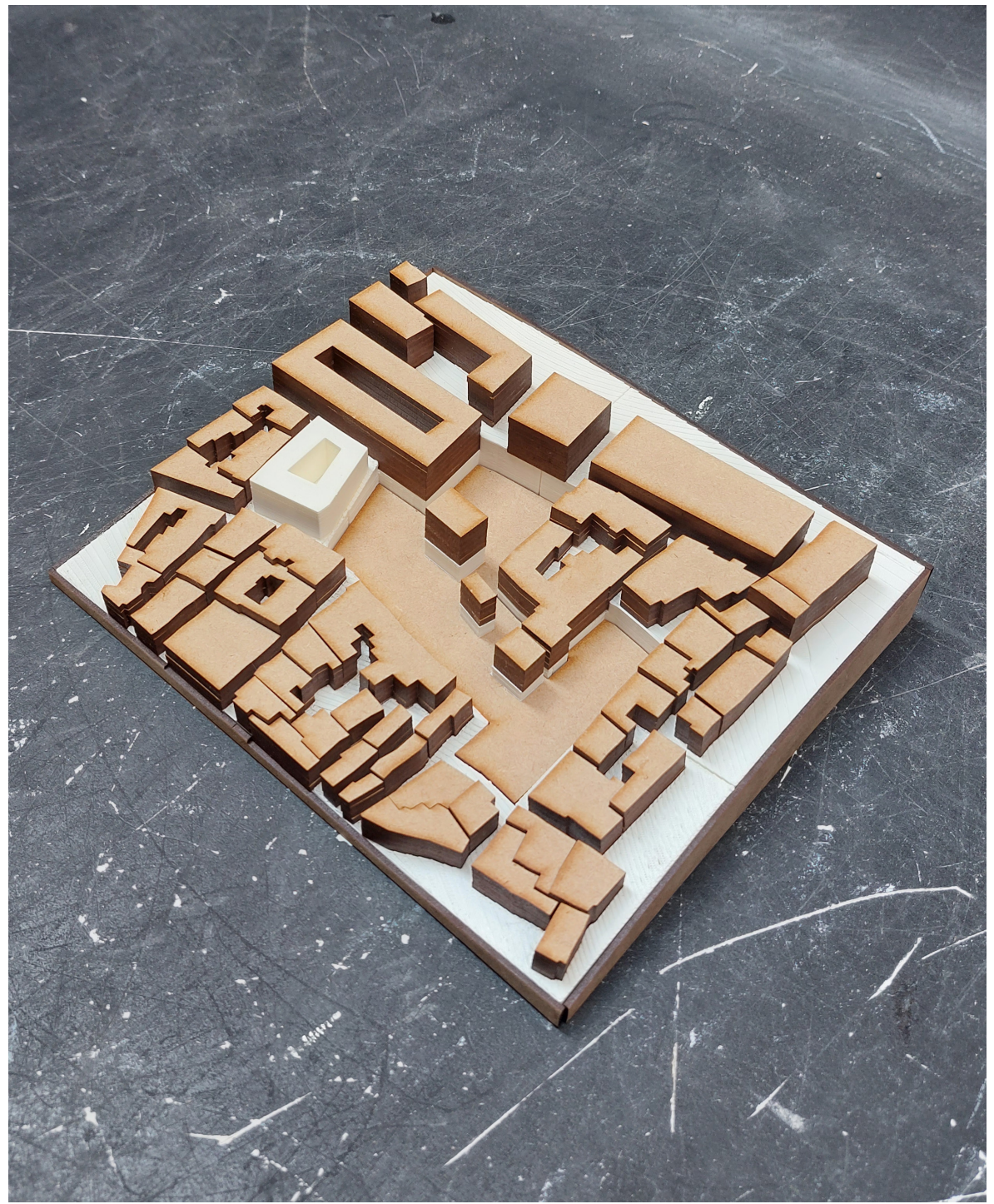
### *STRIP PATTERN*

Create street pattern accessible for logistics, divided by one main axis and functional squares

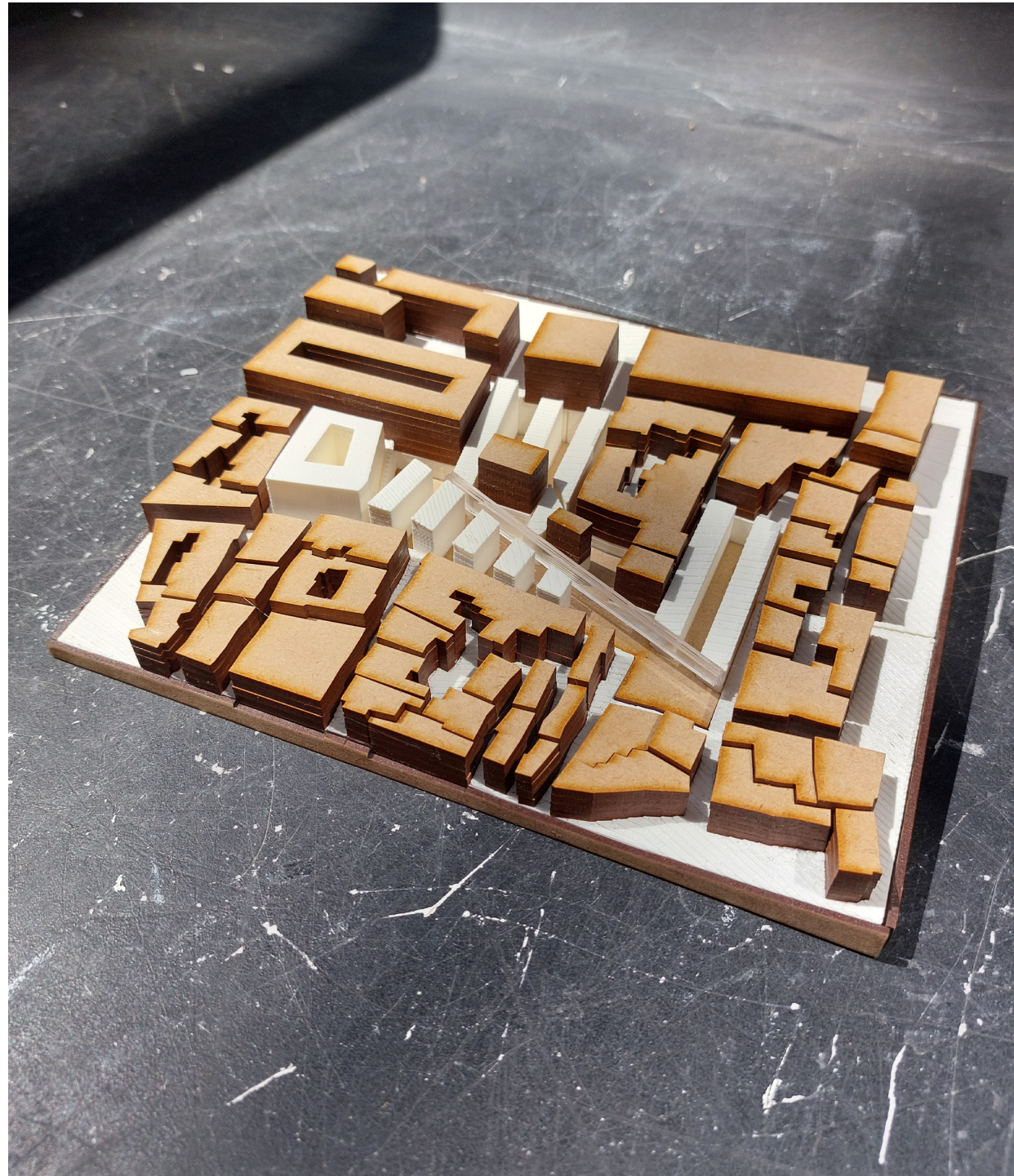


### *FOLLOW THE LANDSCAPE*

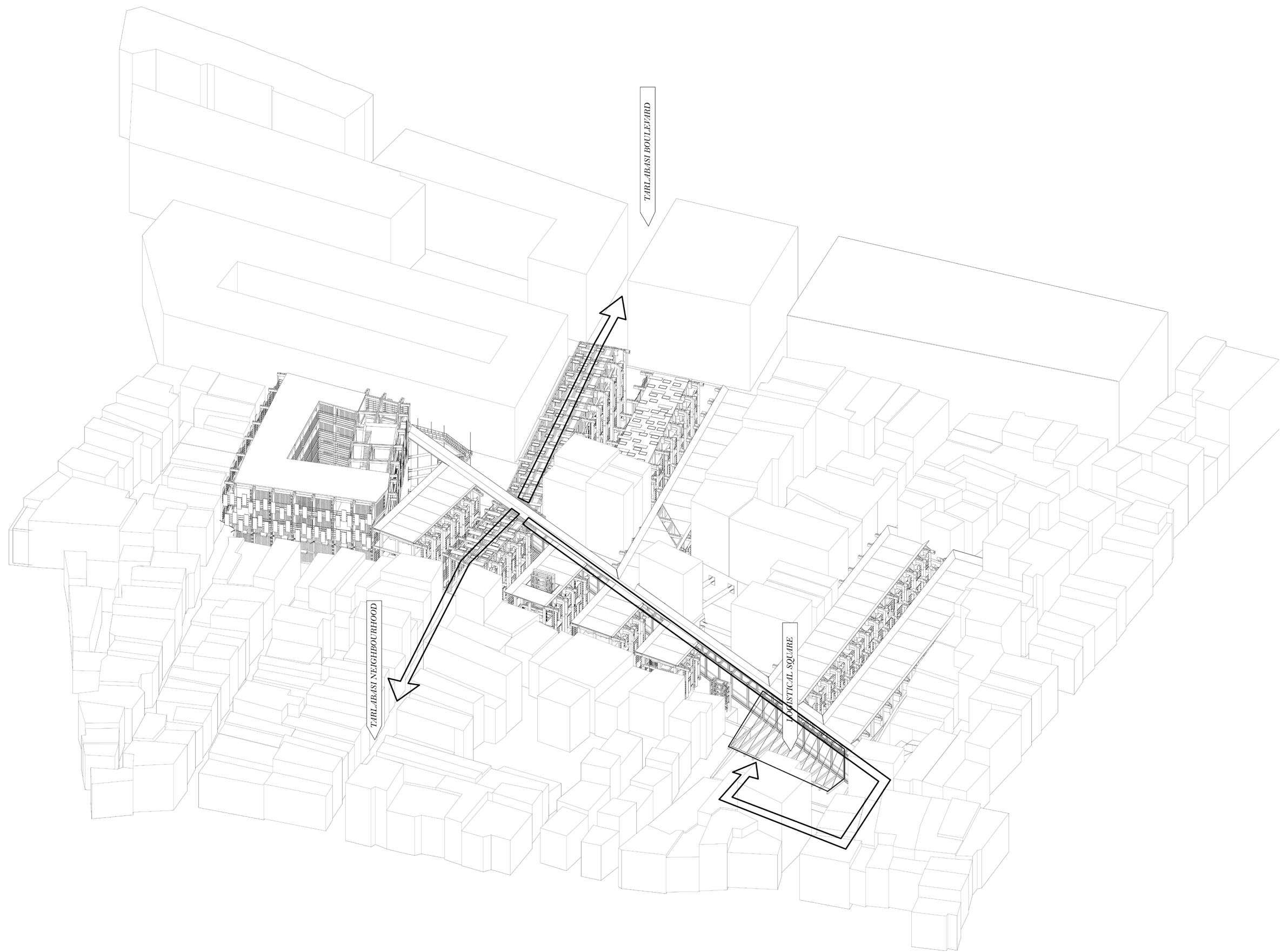
Create connection between the old landscape, the main axis forms the middle point of the building









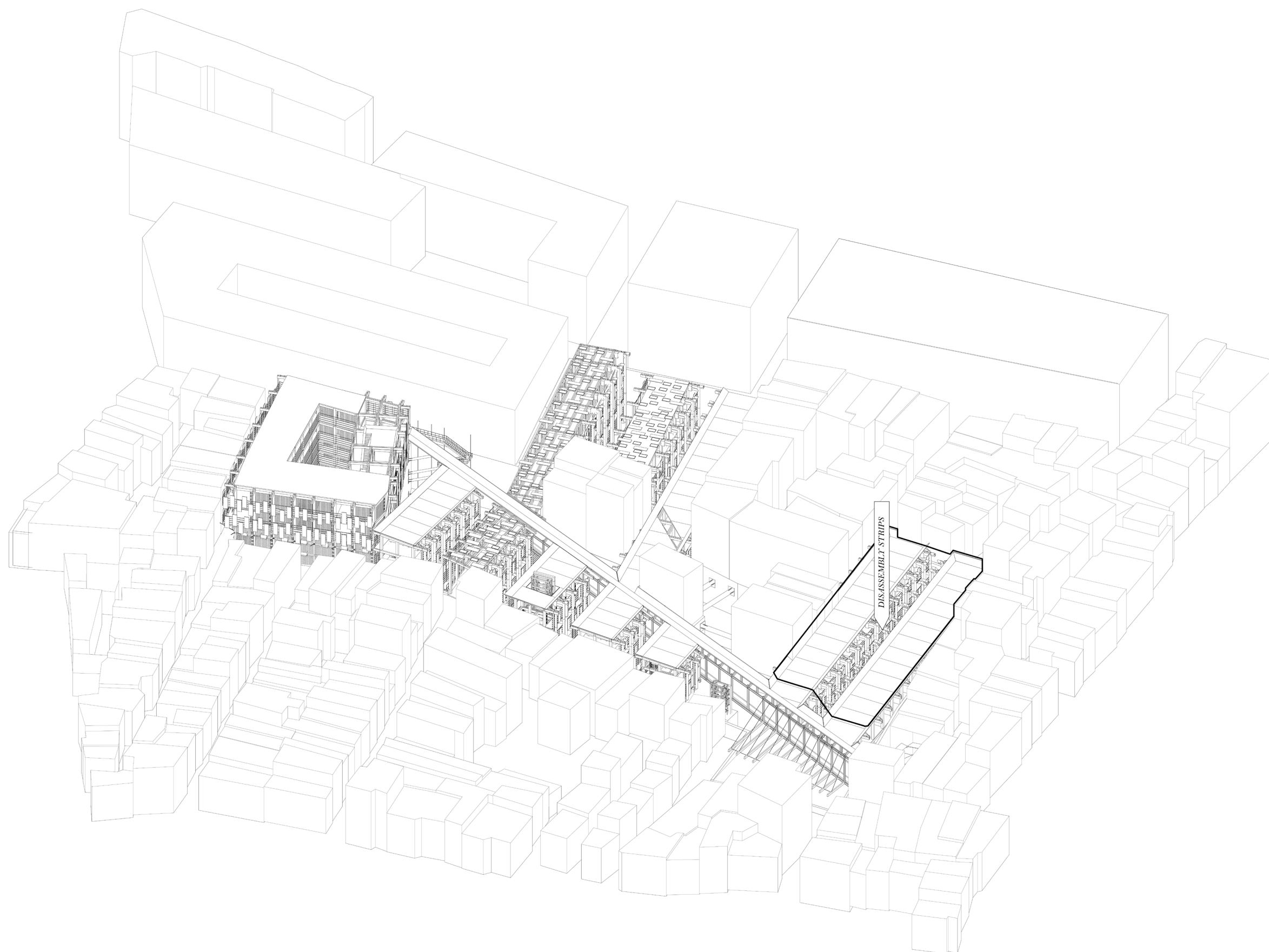


Logistical routes





Logistical square

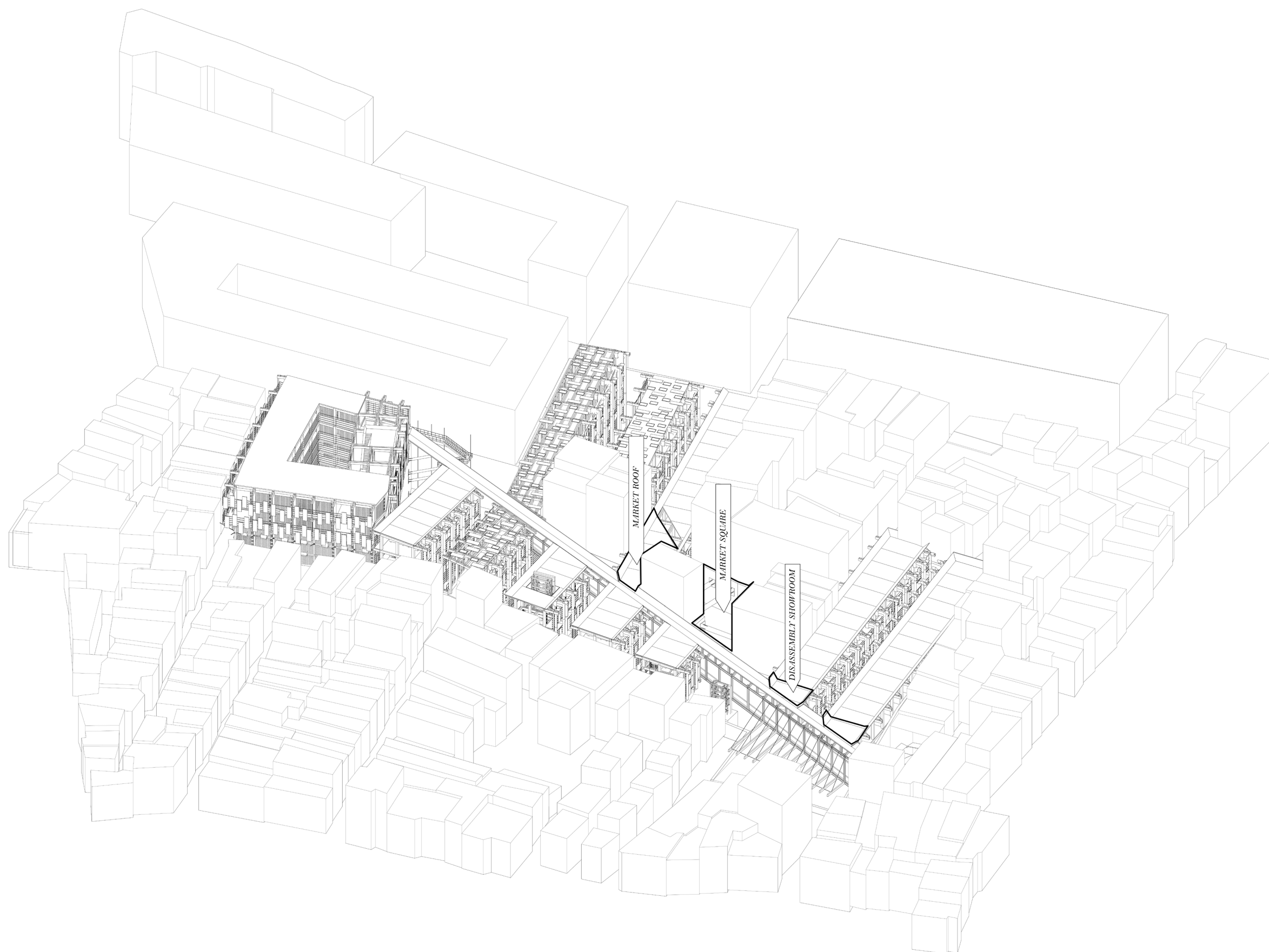


Disassembly strips





Edge of the disassembly strip



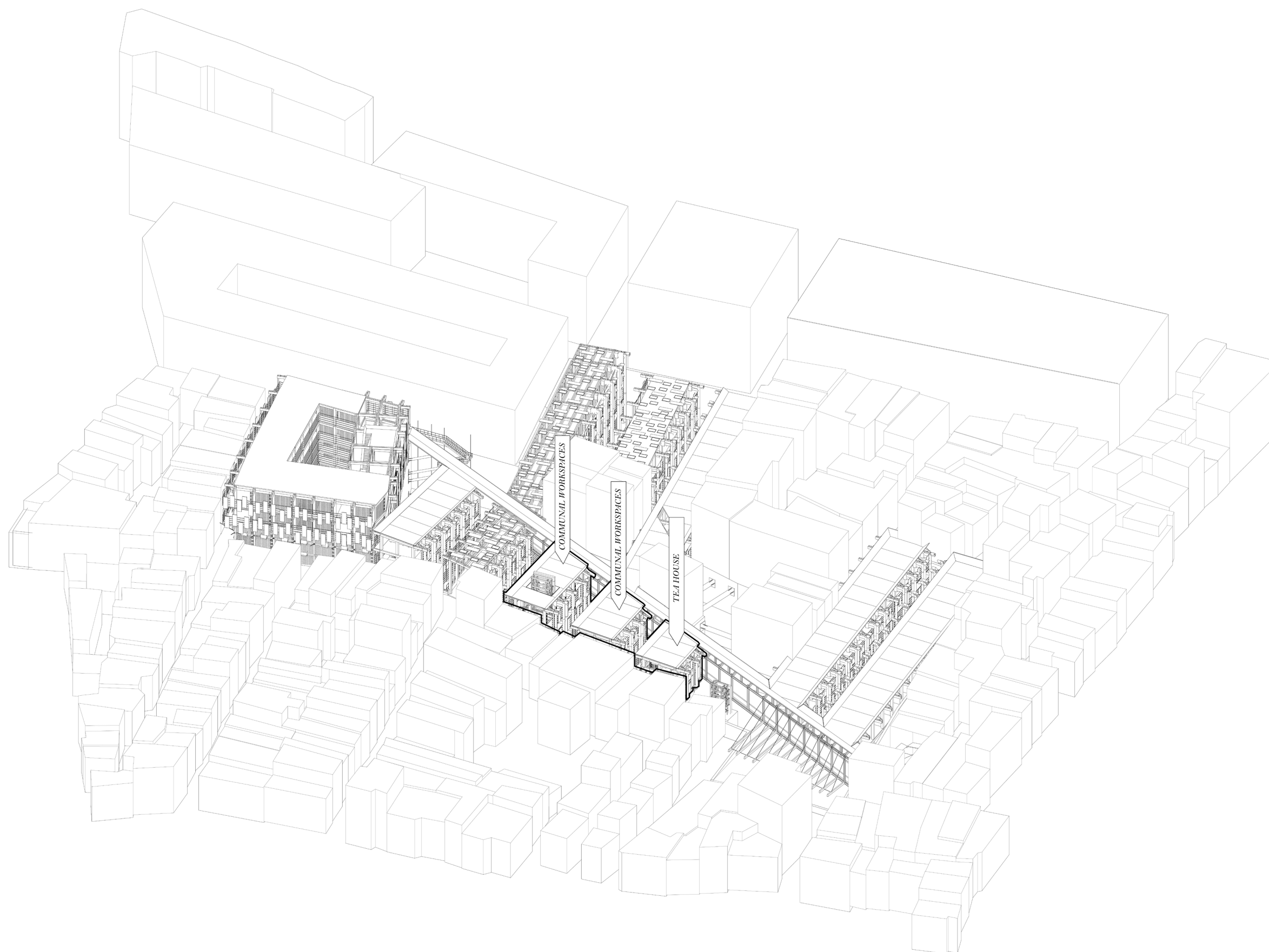
Trading





Market square



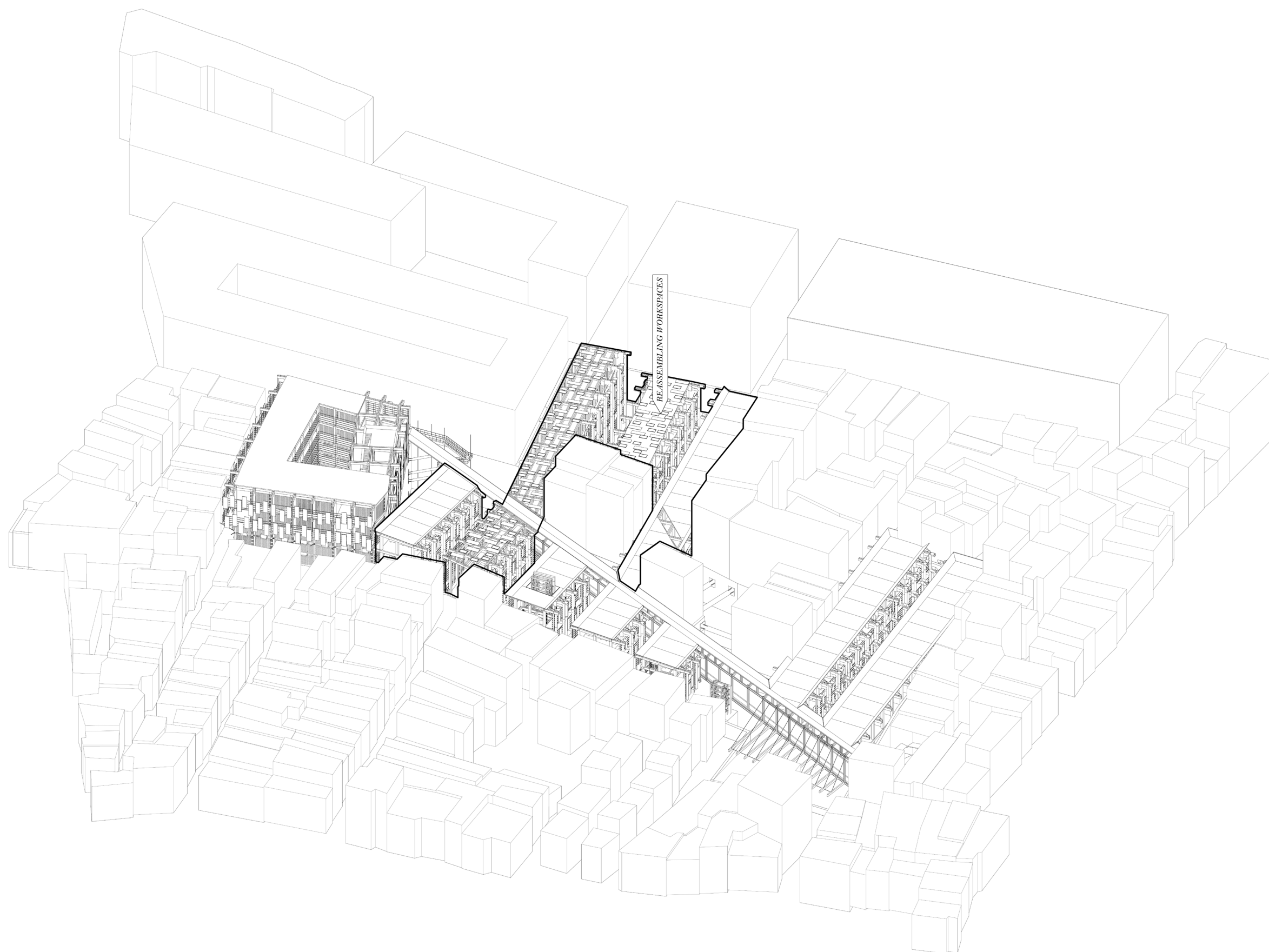


Communal





Communal workshop space

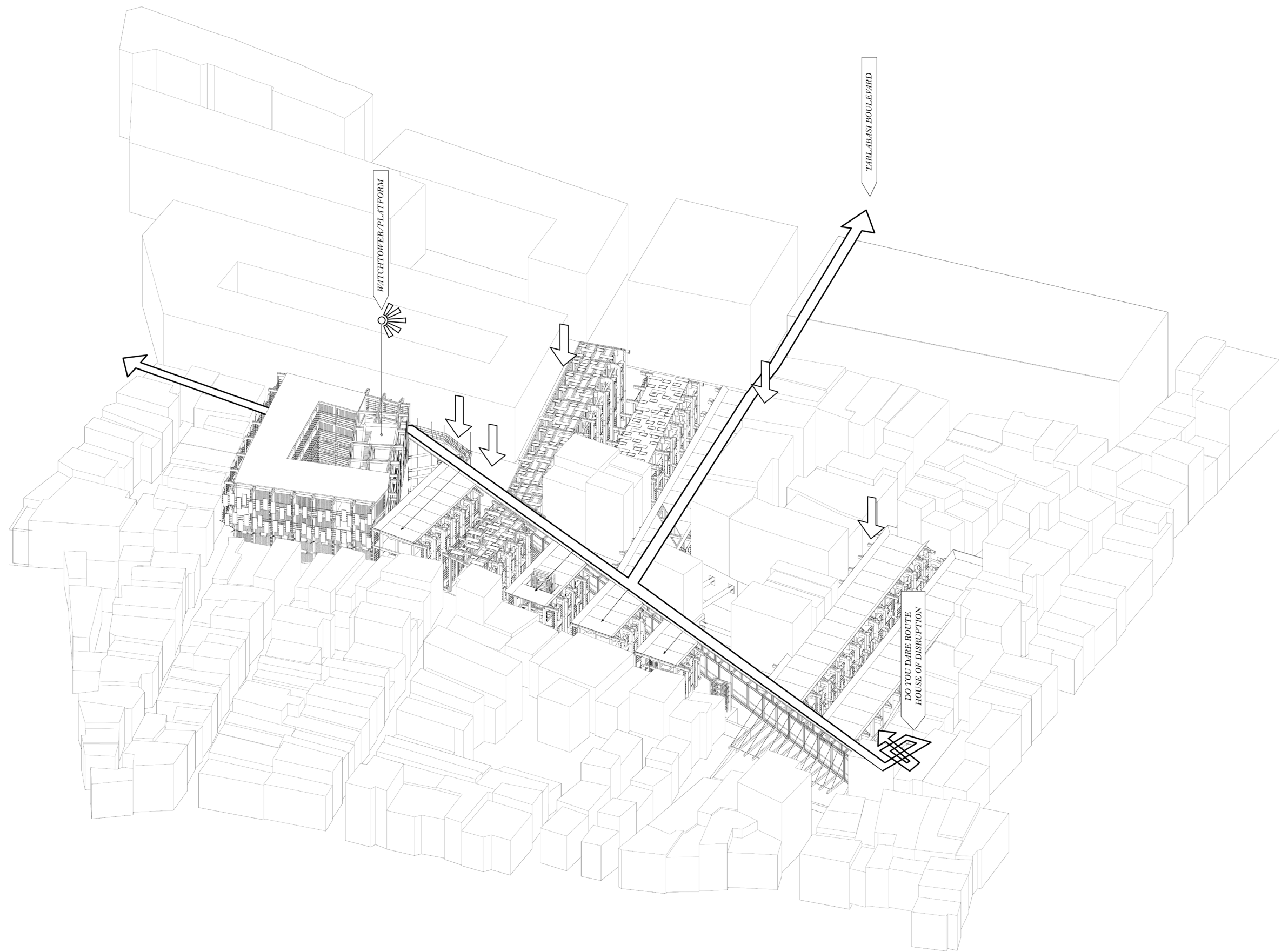


Re-assembly strips



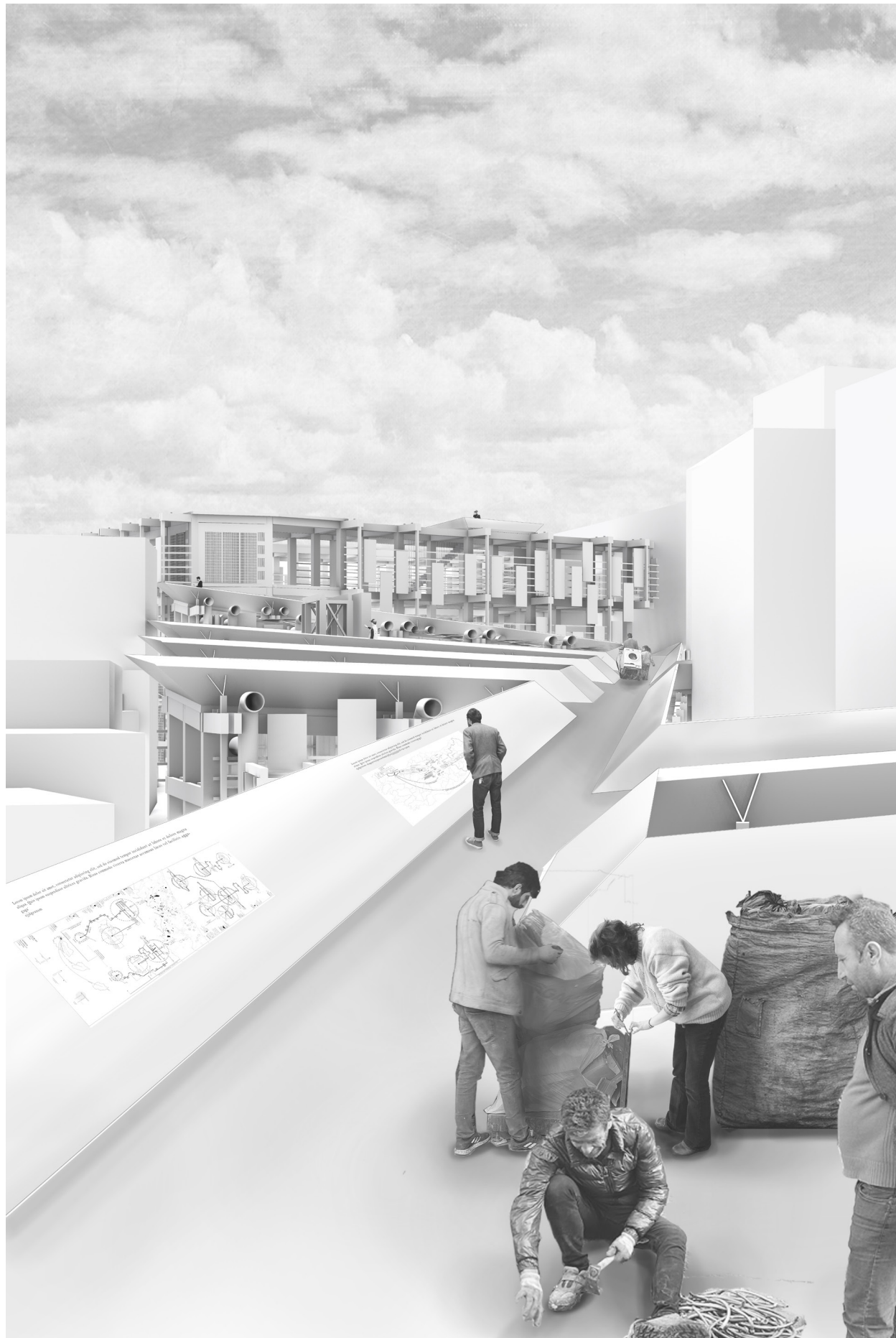


Gallery of the re-assembly strips

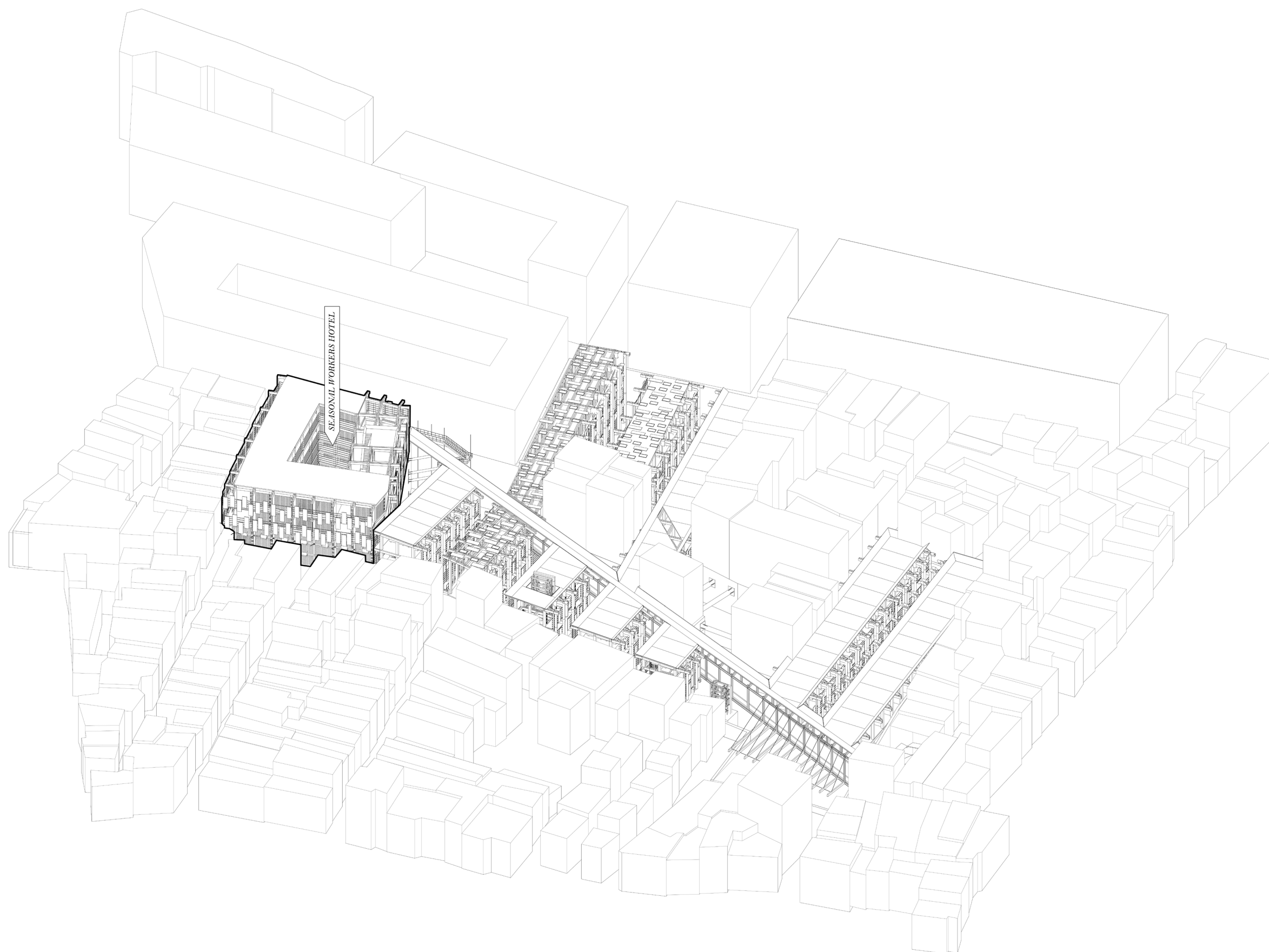


Do You Dare Route





Do You Dare Route



Seasonal workers hotel





Seasonal workers hotel - shelter rooms





Floorplans - Ground floor





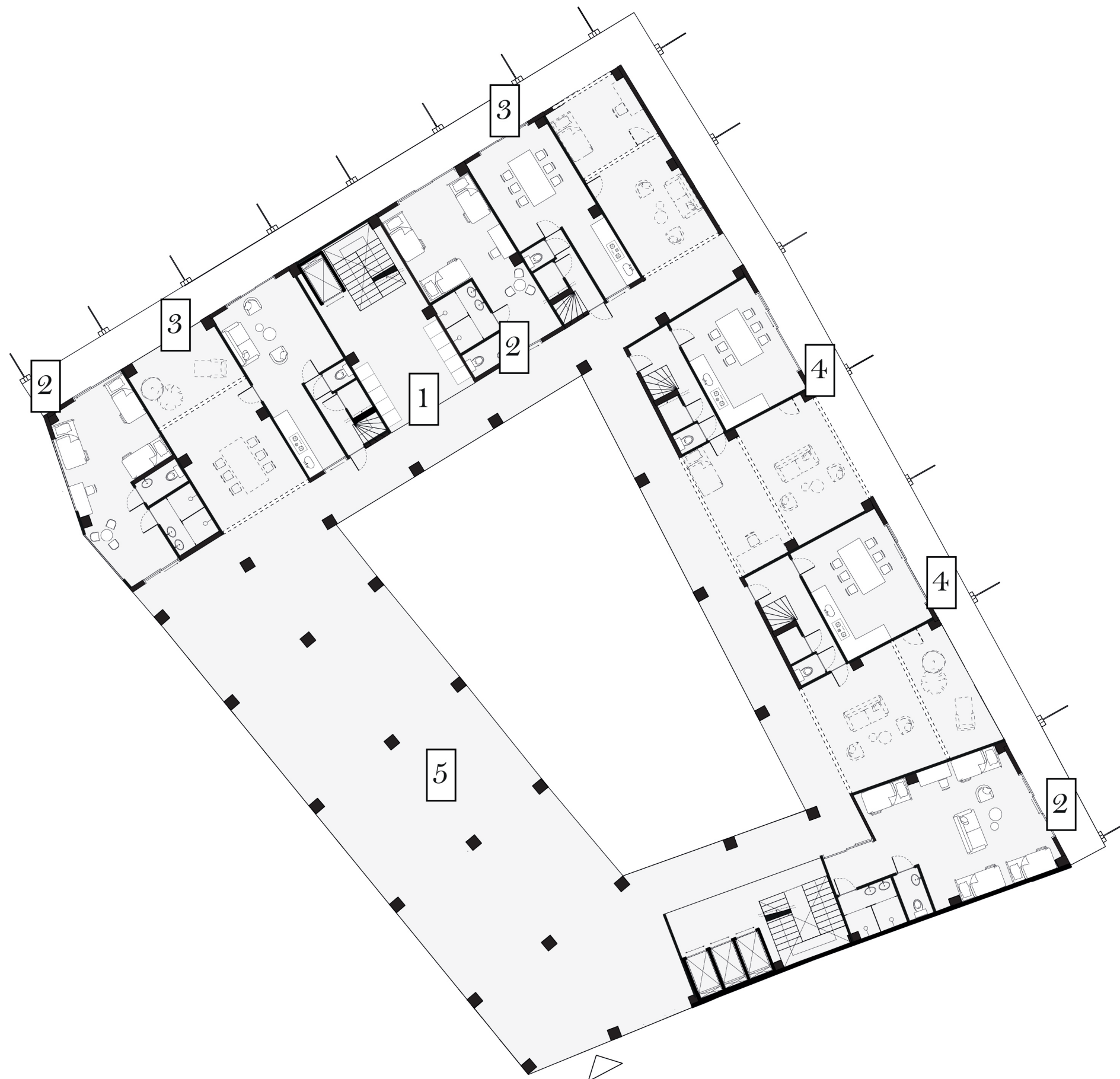
Floorplans - First floor





Floorplans - Second floor





**LEGENDA**

- △ entrance/connection with Do You Dare Route
- 1 laundry point
- 2 long stay family hostel room
- 3 permanent workers house - type A
- 4 permanent workers house - type B
- 5 place of common life

N

SCALE 1:200

**FOURTH FLOOR**

Floorplans - Fourth floor (seasonal workers hotel)

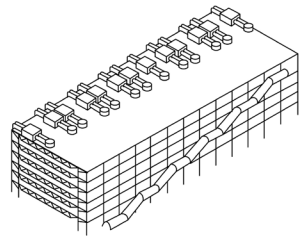
### **3.4 Anatomy of the hybrid structure**

case studies

anatomy of the hybrid structure

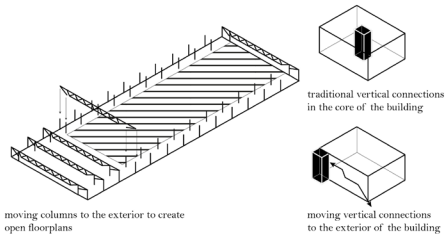


DESIGN PRINCIPLES

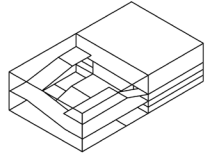


CENTRE POMPIDOU

Renzo Piano, Richard Rogers  
France - Paris  
Centre for modern art  
105.305 m²  
1977

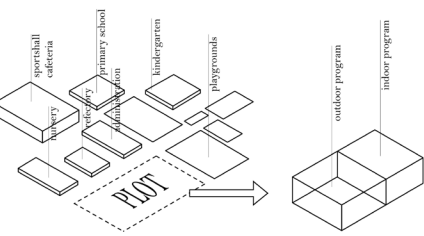


CREATE FLEXIBLE OPEN FLOORPLAN BY MOVING ITS SERVICES, CORRIDORS, ELEVATORS & STRUCTURAL MEMBERS ON ITS EXTERIOR

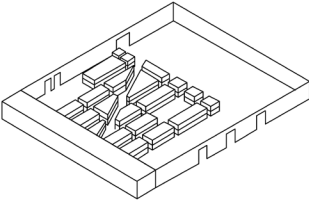


MELOPEE SCHOOL

XDGIA - Xavier De Geyter Architects  
Belgium - Ghent  
School  
4.630 m²  
2020

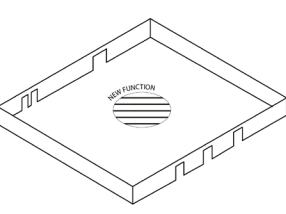


CREATE COMPACTNESS BY STACKING PROGRAM

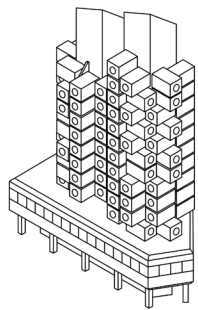


NDSM LOODS

Dynamo Architecten  
Netherlands - Amsterdam  
Maker spaces  
7.500 m²  
2005

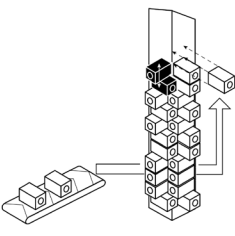


CREATE CREATIVE BREEDING GROUND IN VACANT OLD INDUSTRIAL HALL



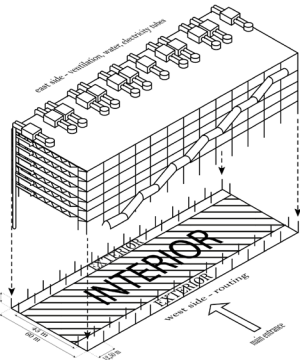
NAKAGIN CAPSULE TOWER

Kisho Kurokawa  
Japan - Tokyo  
Dwellings & workspaces  
3.091 m²  
1972

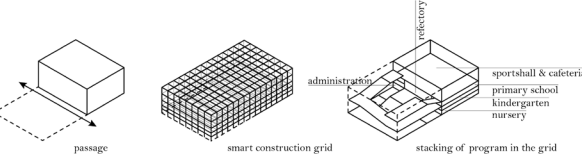


MASS PRODUCTION OF GENERIC DWELLING UNITS THAT CAN BE REPLACED OR COMBINED OR ADDED TO THE BUILDING

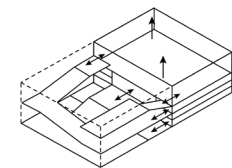
SYSTEM



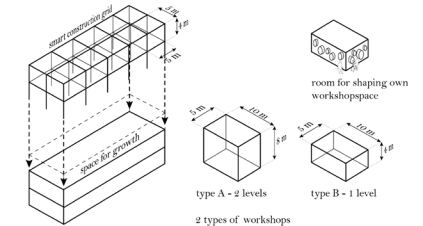
THE INNERWORKINGS OF THE BUILDING BECOME VISIBLE ON THE EXTERIOR



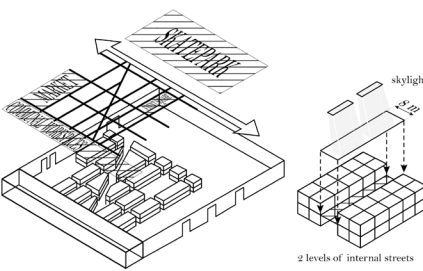
STEEL CONSTRUCTION GRID OF 5m x 5m



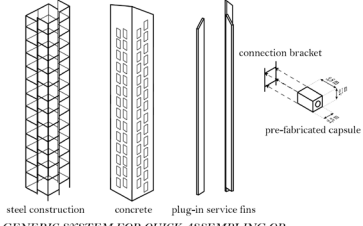
EVERY FUNCTION HAS ACCESS TO OUTDOOR PLAYGROUND TWO VERTICAL CONNECTIONS IN INTERIOR



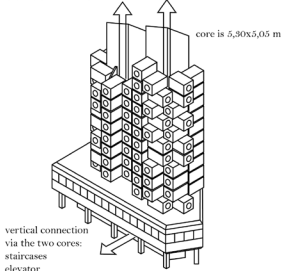
CREATE CREATIVE BREEDING GROUND IN VACANT OLD INDUSTRIAL HALL



CREATE INTERNAL STREET SYSTEM WITH PRODUCTIVE SPACES, PUBLIC SPACES AND COMMUNAL SPACES

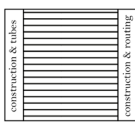


GENERIC SYSTEM FOR QUICK ASSEMBLING OR DISASSEMBLING



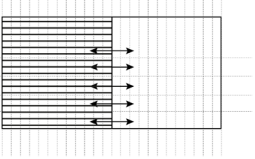
THE TWO CORES FORM THE VERTICAL CONNECTION BETWEEN THE CAPSULES AND THE GROUND FLOOR

CONCLUSION



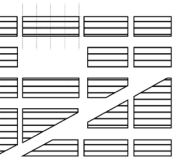
OPEN FLOORPLAN ACCOMMODATING THE PROGRAM

TURN BUILDING LITERALLY INSIDE OUT



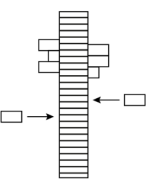
CONNECTION INTERIOR AND OUTDOOR PROGRAM VIA SMART GRID SYSTEM

COMPACTNESS CAN CREATE DIRECT ACCESS TO OUTDOOR PROGRAM WHICH FACILITATES ITS INTERIOR PROGRAM



USE OF URBAN GRID WITH PRODUCTIVE SPACES

CREATE A CITY INSIDE OLD INDUSTRIAL HALL WITH ROOM FOR SELF-REGULATION AND CREATIVITY BUT WITH THE GUIDANCE OF THE ARCHITECTS VIA AN "URBAN" PROGRAM AND A SMART CONSTRUCTION GRID

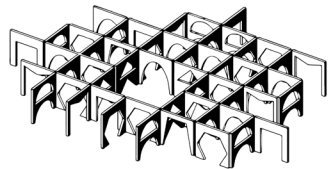


WHOLE BUILDING IS BASED ON A SYSTEM OF FAST ASSEMBLING AND DISASSEMBLING OF CAPSULES

CREATE VIA INDUSTRIALIZATION A SYSTEM WHICH IS FLEXIBLE AND CAN GROW, LITTLE ROOM FOR SELF REGULATION IN THE PHYSICAL FORM OF THE BUILDING

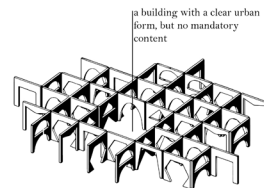


Case studies - flexible systems

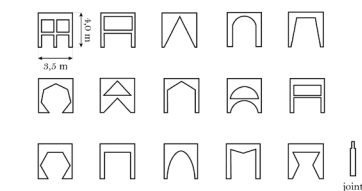


### ABBOTOIR FOODMET

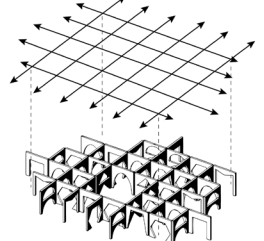
OBG  
Belgium - Brussel  
Food market  
21.000 m²  
2015



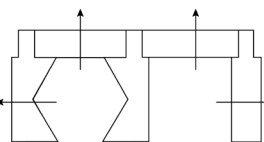
CREATE A BUILDING THAT COMMUNICATES THE CURRENT VALUES AND ASPIRATIONS OF THE COMMUNITY VIA FLEXIBILITY



OVER-DIMENSIONED PLATONIC PANELS FORM DOZENS OF LARGE IDENTICAL ROOMS THAT CAN ACCOMMODATE ALMOST ANY USE



NO CLEAR ROUTING - ROUTING IS PART OF THE FLEXIBLE STRUCTURE SYSTEM



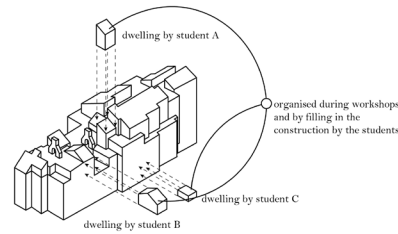
FAST STRUCTURAL SYSTEM OF ASSEMBLING WHICH CAN ACCOMMODATE ALMOST EVERY PROGRAM AND EXPANSION IN ALL DIRECTIONS POSSIBLE

THE SYSTEM PLATONIC PANELS ARE FORMING A CLEAR URBAN FORM, BUT THE PROGRAM INSIDE CAN CHANGE BY ITS NEEDS AND CAN EASILY GROW AND ACCOMMODATE NEW OR CHANGE IN PROGRAM DUE ITS OVER-DIMENSIONED PANELS

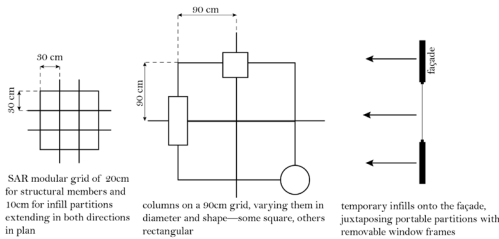


### LA MÉMÉ

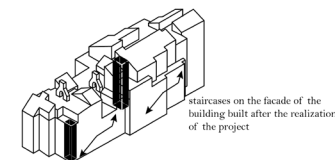
Simone en Lucien Kroll  
Belgium - Lambrechts-Woluwe  
Student homes  
1971



PARTICIPATORY DESIGN WITH THE USERS OF THE BUILDING

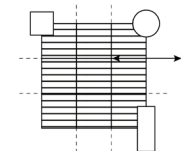


KROLL IS GUIDING THE PROCESS BY USING SAR MODULAR GRID



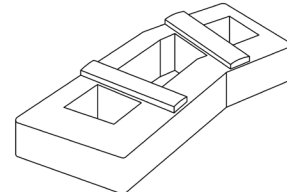
one central vertical routing with staircase and two elevators and one staircase on the edge of the building

PART OF THE ROUTING IS DESIGNED WITHOUT FLEXIBILITY, BUT ON THE EXTERIOR STAIRCASES ARE BUILT BY THE STUDENTS, SO ALSO ROOM FOR SELF-REGULATION IN THIS ASPECT



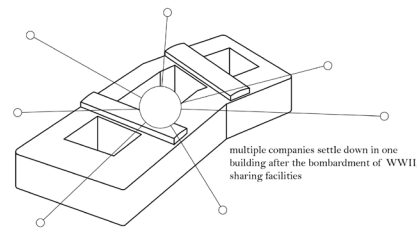
ENDLESS POSSIBILITIES IN CHANGE OF SPACE DUE TO USE OF SMALL SAR GRID IN COMBINATION WITH A CATALOGUE OF COMPATIBLE COMPONENTS

THE BUILDING IS DESIGNED VIA A PARTICIPATED DESIGN PROCESS VIA A SMART GRID SYSTEM A FLEXIBLE FLOORPLAN IS INTEGRATED IN THE DESIGN, THE BUILDING BECOMES AN PHYSICAL ENVIRONMENT REPRESENTING ITS SOCIAL ECOLOGY

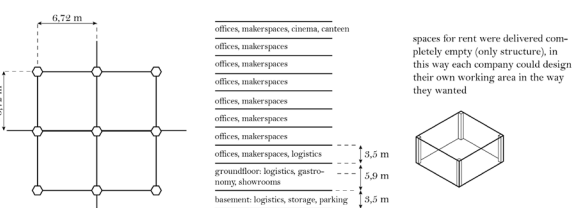


### GROOT HANDELSGEBOUW ROTTERDAM

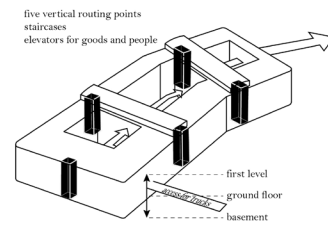
Huig Aart Maaskant & Willem van Tijen  
Netherlands - Rotterdam  
Multi-company building  
128.000 m²  
1855



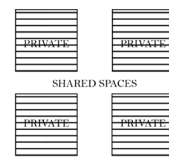
ACCOMMODATE SPACES FOR OFFICES, WAREHOUSES, SHOWROOMS FOR WHOLESALERS, BUT ALSO INTEGRATE THE BUILDING WITH ITS CITY LIFE FORMING A WHOLE ECONOMY AND NETWORK IN ONE BUILDING



USE OF SMART CONCRETE STRUCTURAL GRID SYSTEM, THE PROGRAM IS DESIGNED AND LAYERED IN SUCH A WAY THAT IT ACCOMMODATES MORE THAN AN OFFICE BUILDING, BUT ALSO SPACES THAT ACCOMMODATE SOCIAL INTERACTIONS AND LEISURE



CREATE ROUTING THAT CAN ACCOMMODATE WORK, HALLWAYS ARE WIDE ENOUGH FOR FORKLIFT TRUCKS, TRUCKS CAN ACCESS WHOLE BUILDING ON THREE LEVELS VIA ROUTING THROUGHT THE THREE COURTYARDS



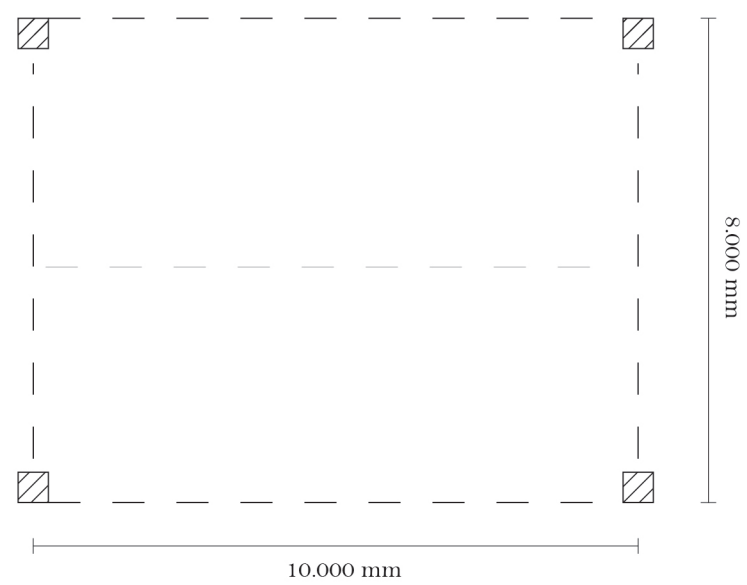
SHARING COMMON FUNCTION SUCH AS LOGISTICS, CANTEENS, ETC.

SMART USE OF SHARED SPACES AND PRIVATE SPACES TO ACCOMMODATE A BUILDING FULL OF DIFFERENT COMPANIES WHILE INTEGRATING IN ITS CITY LIFE, WITH ALSO SPACE FOR OWN PREFERENCES IN FORMING THE PRIVATE WORK ENVIRONMENT OF COMPANIES



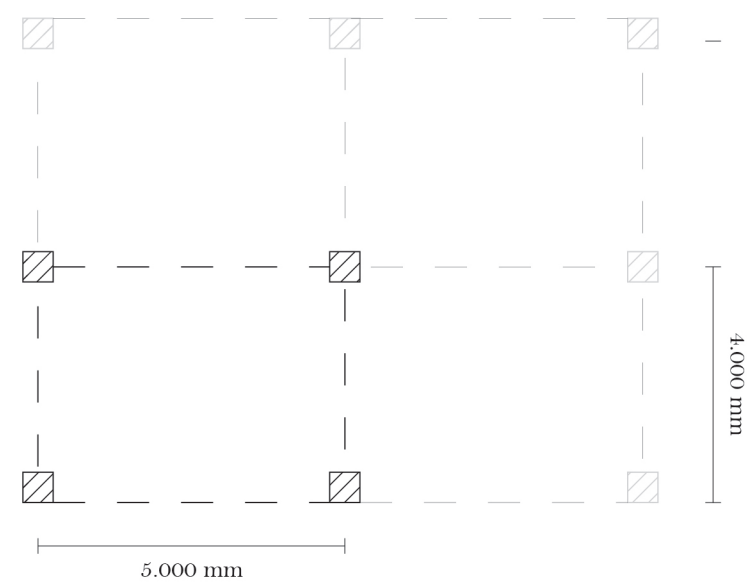
## Case studies - flexible systems



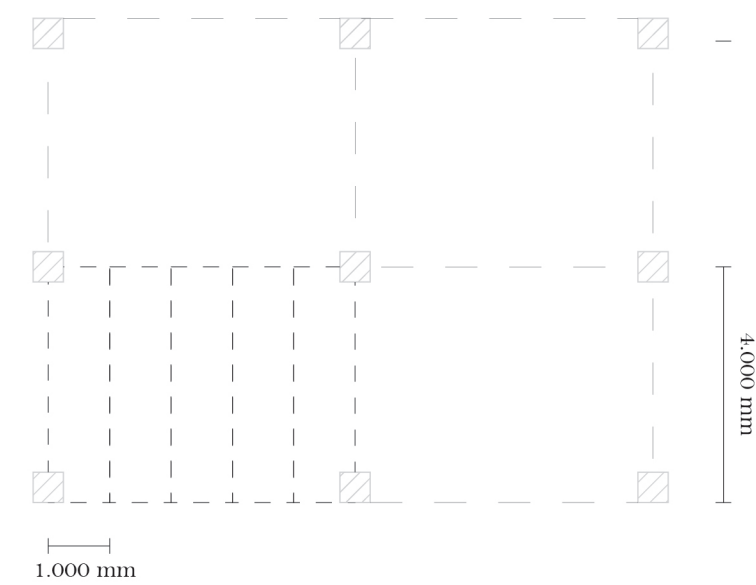


***SUPER GRID***  
 primary grid with the loadbearing structure  
 columns on the outside of the grid to create an open  
 floorplan

\*     *The hybrid structure of the bridge strip has a primary grid of 5000 x 8000 mm*

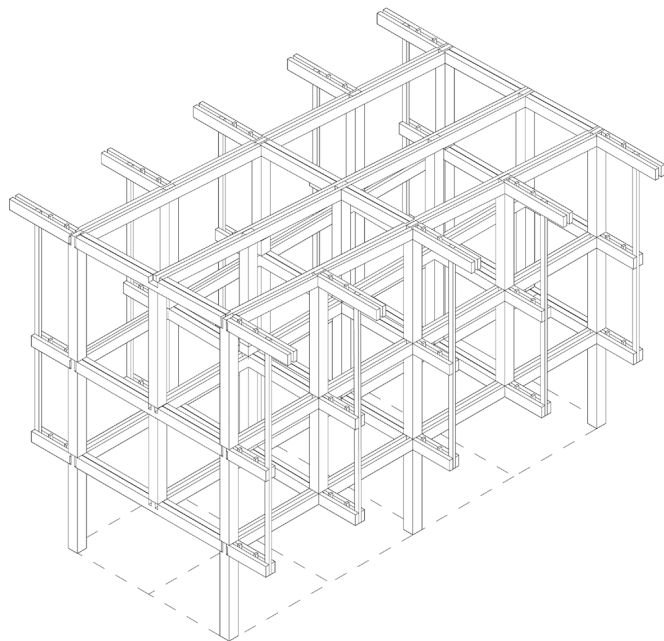


***SECUNDAIR GRID***  
 secondary grid, deviding super grid into  
 smaller spatial elements

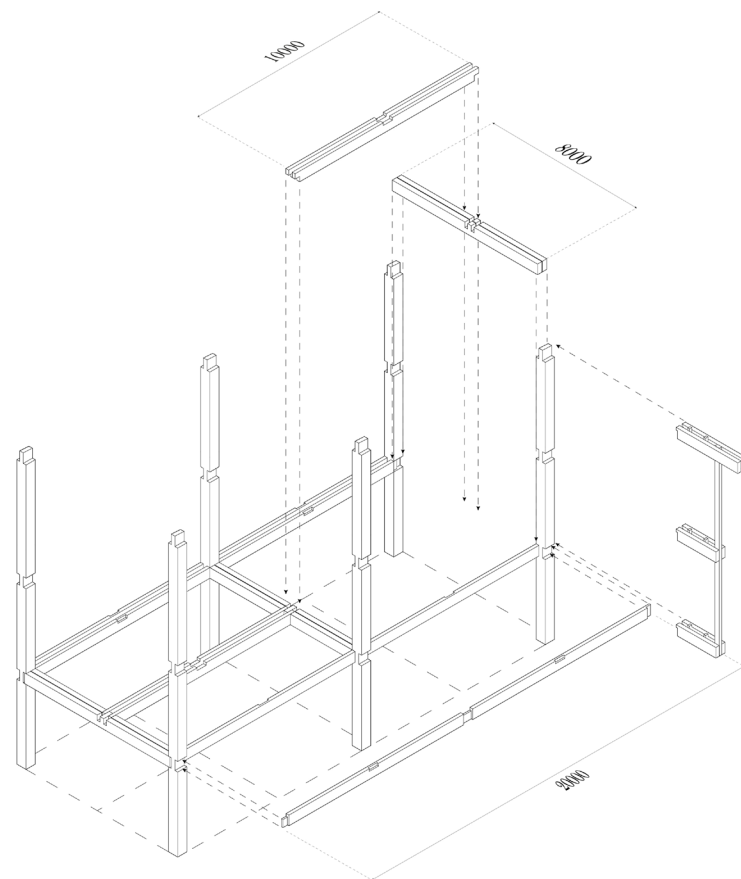


***TERTIAIR GRID***  
 tertiair grid, existing out of removable leightweight  
 floorplates

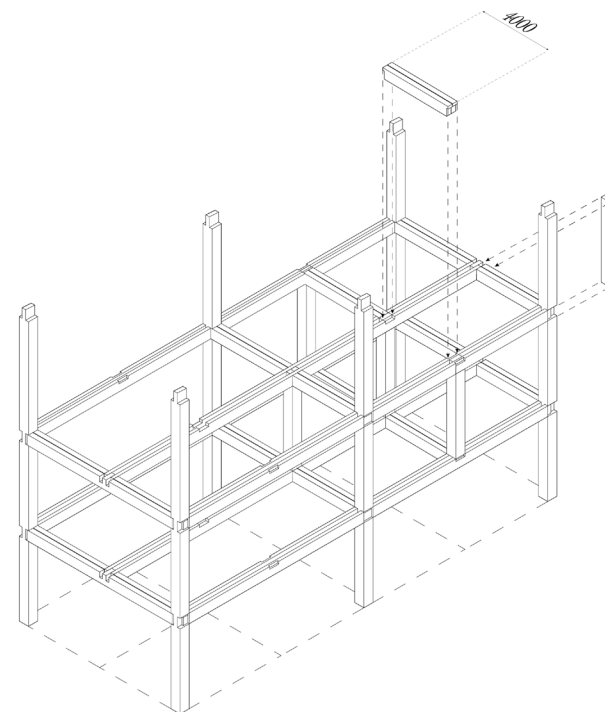
# Gridsystem



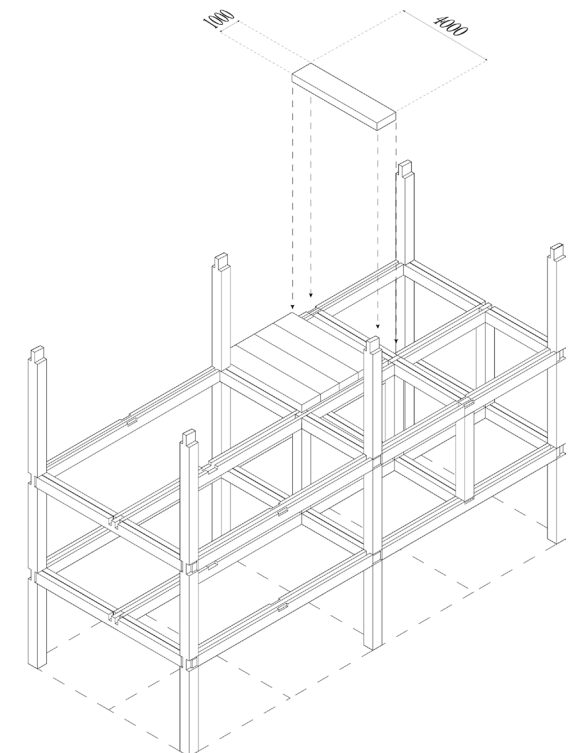
*STRUCTURAL FRAGMENT*  
system of the three different grids in one fragment



*THE SUPER GRID*  
structural system existing out of long CLT columns and beams, by positioning the columns on the outside a column free space is being created



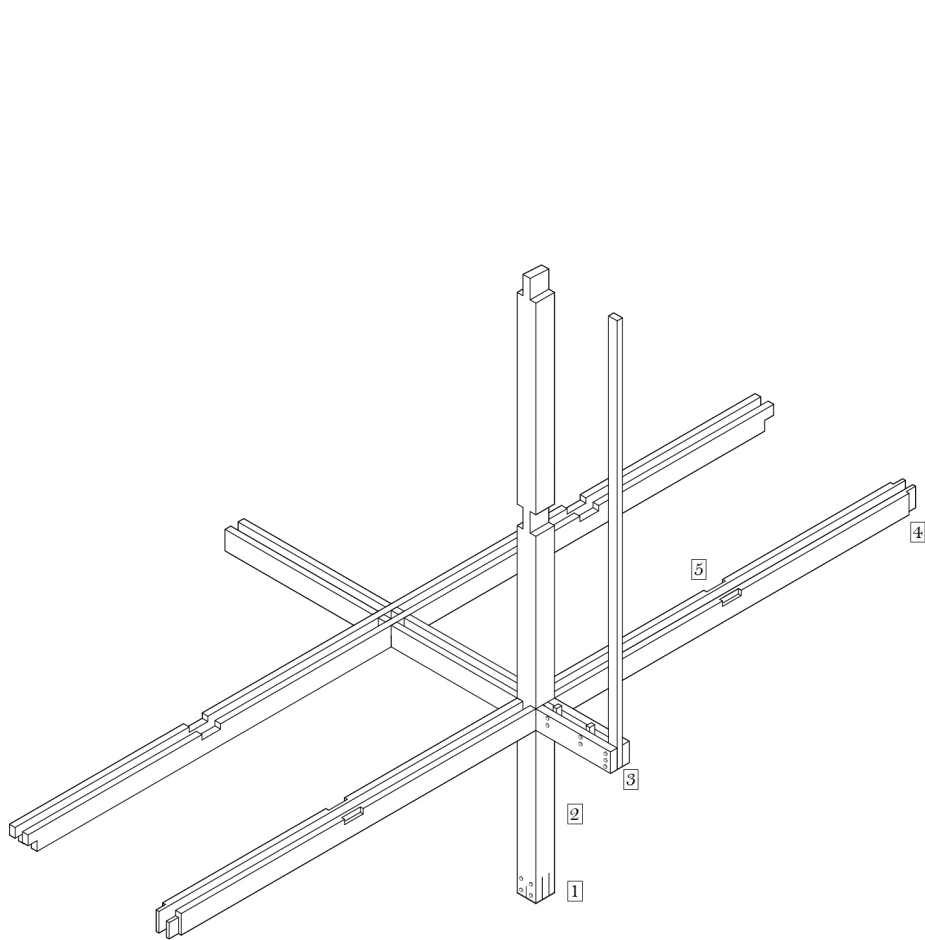
*THE SECUNDA'IR GRID*  
system of assembling or disassembling smaller CLT columns and beams in order to transform the grid into smaller or larger modules in horizontal and/or vertical directions



*THE TERTIA'IR GRID*  
system of assembling or dissassembling small and light-weight floorplates in order to create openings and vertical connections

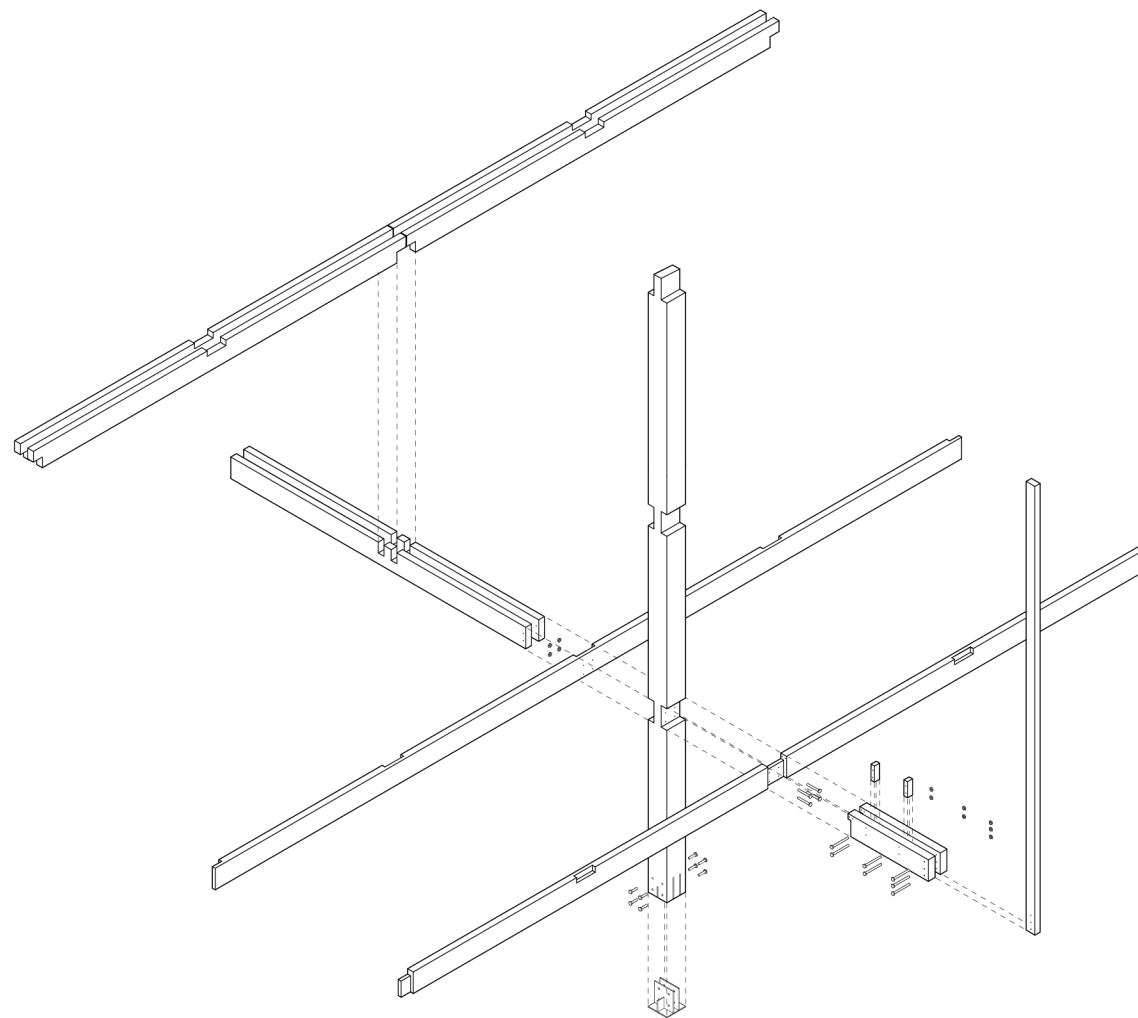
Three grids creating one system



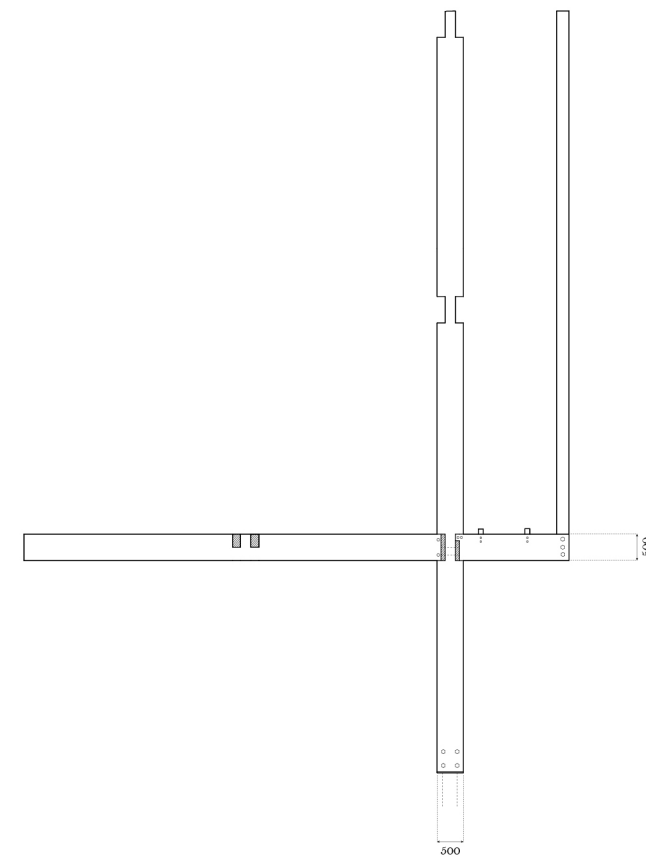


### *STRUCTURAL JOINT*

- 1- steel profile for anchoring column with the foundation
- 2- oversized CLT column 500x500 mm (h.o.h 5000 mm) from ground floor to roof
- 3- CLT beams 150x500 mm supporting gallery floors
- 4- Oversized CLT beams 150x500 mm with a length of 20 meters for stiffness
- 5- notches for filling in for the secondary grid structure

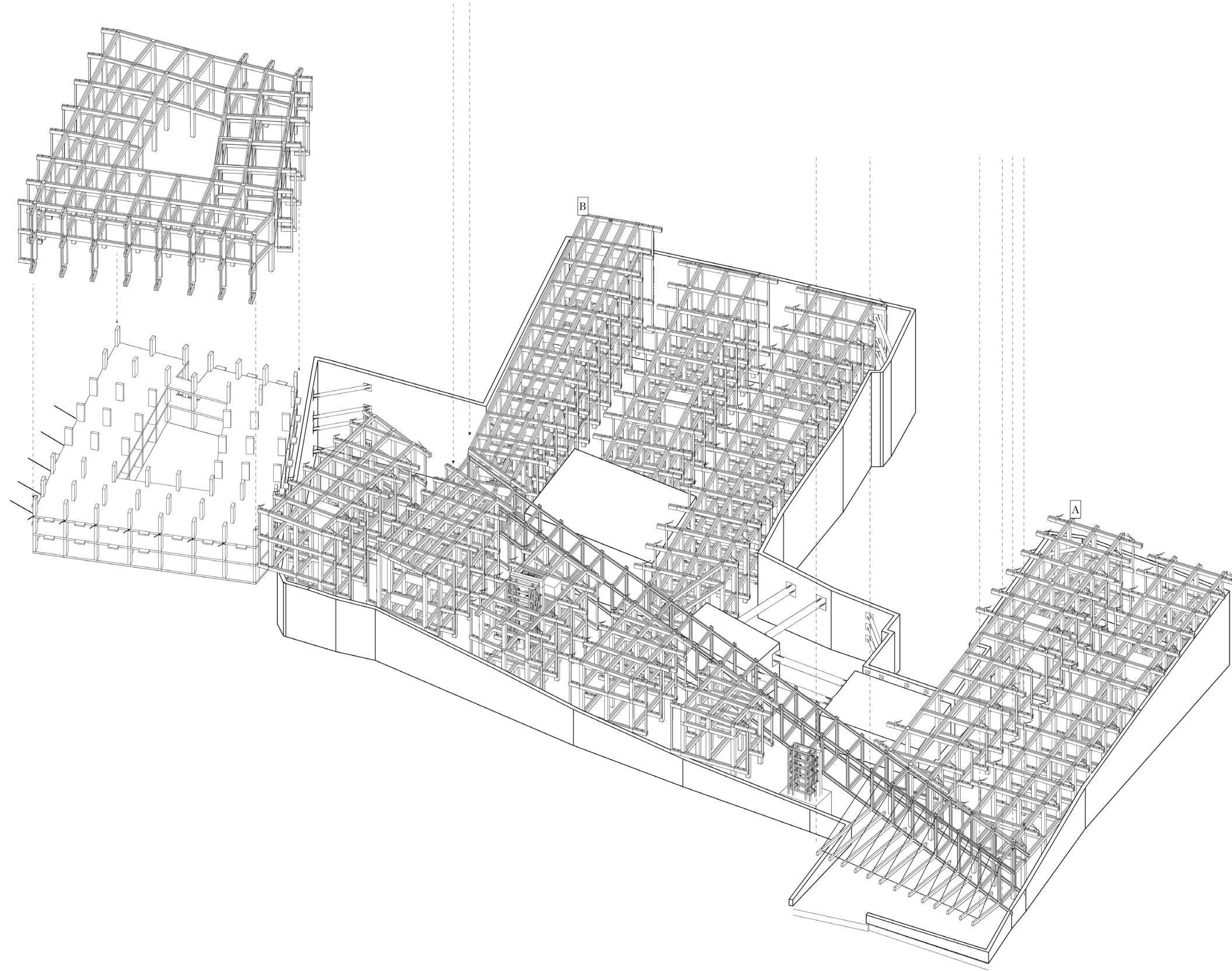


### *EXPLODED AXONOMETRIC*



### *JOINT ELEVATION*

## CLT construction & connection

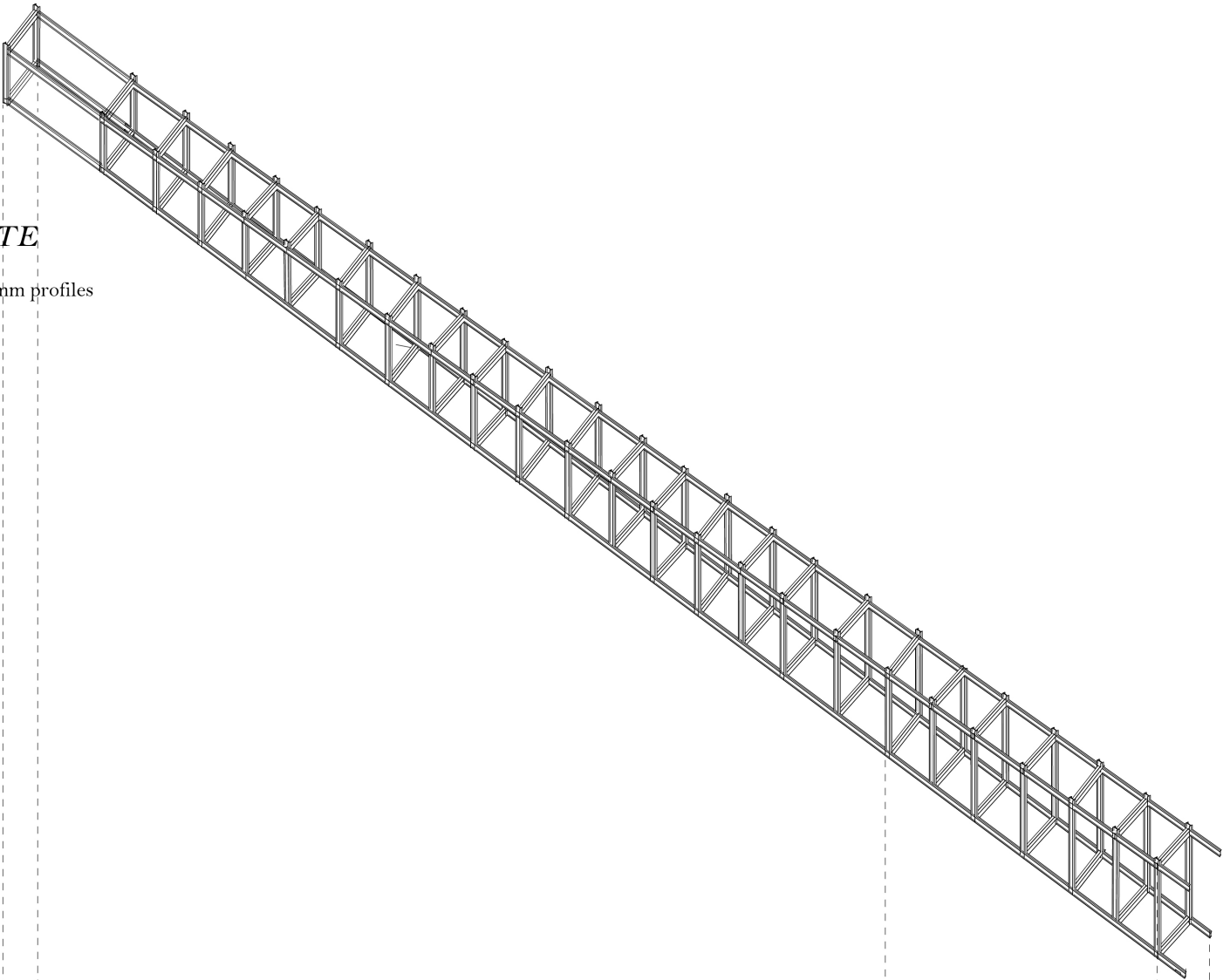


The hybrid structure



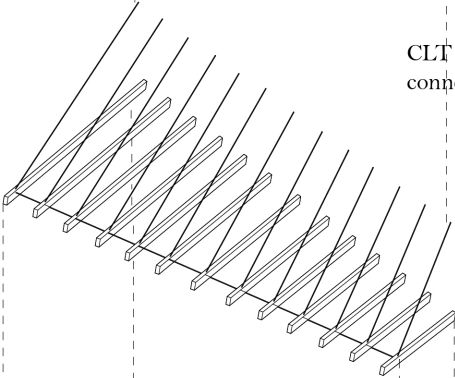
*LOGISTICAL AXIS*  
*& DO YOU DARE ROUTE*

vierendeelligger with steel HEA 450mm profiles  
momentary connections



*LOGISTICAL SQUARE*

CLT beams (150 x 500 mm) and steel cables  
connected to the vierendeelligger



Logistical structures

*STIFFNESS*

floors spanning from side to side (8000 mm)

*CONSTRUCTION WASTE PICKING ROOF*

laminated wooden beams & columns

column thickness 500 x 500 mm

2 beams of 150 x 500 mm

*CONSTRUCTION GALLERIES*

laminated wooden beams connected to the primary structure

*EXISTING STABILITY BEAMS*

usage of the existing beams in the construction  
beams to gain stability and stiffness

*CONCRETE CORE*

elevator shaft used for stability

*LOAD BEARING CONSTRUCTION*

hybrid structure existing out of laminated  
wooden beams & columns

column thickness 500 x 500 mm

2 beams of 150 x 500 mm

*WIND BRACINGS*

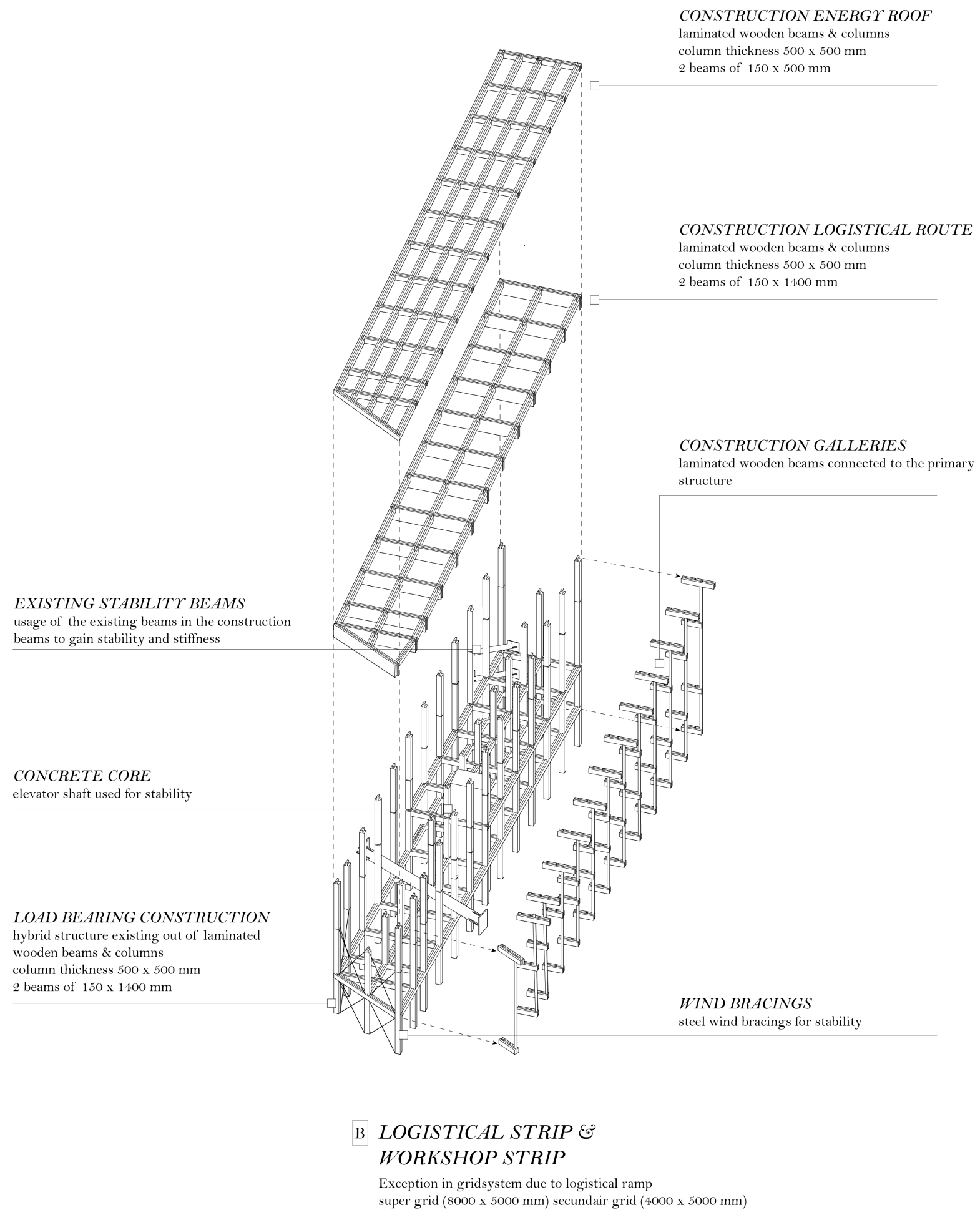
steel wind bracings for stability

**A** *WORKSHOP STRIP*

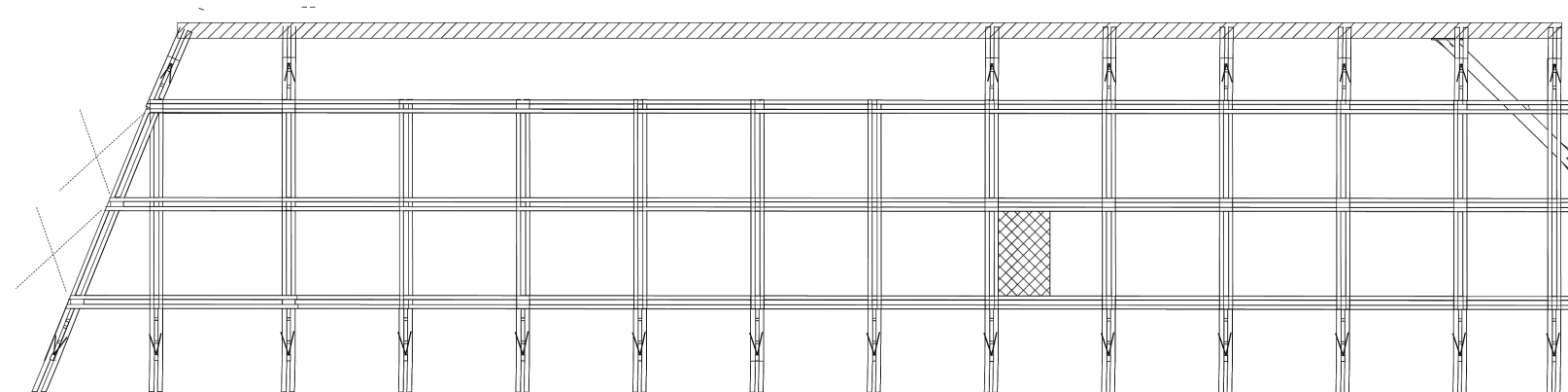
super grid (8000 x 10000 mm) & secundair grid (4000 x 5000 mm)

## Anatomy workshop strip

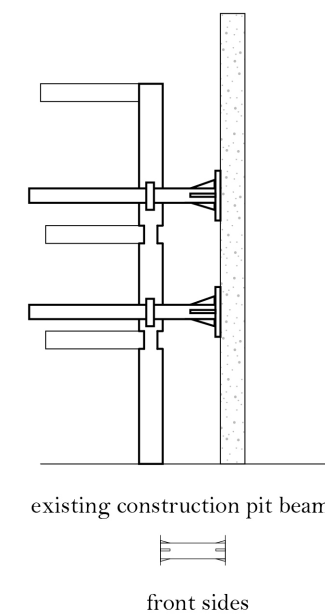
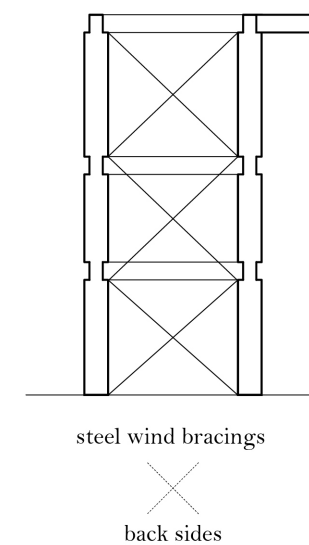
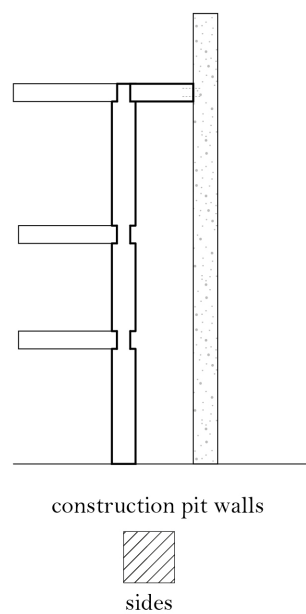
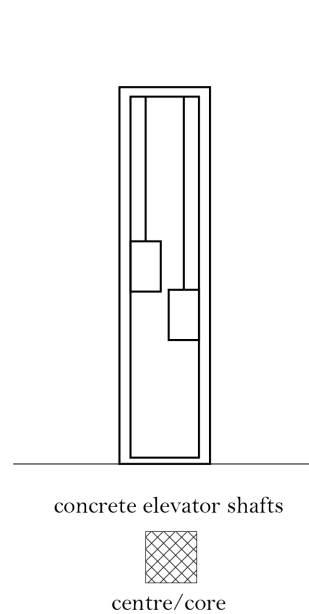




## Anatomy logistical & workshop strip



the elements of stability working together

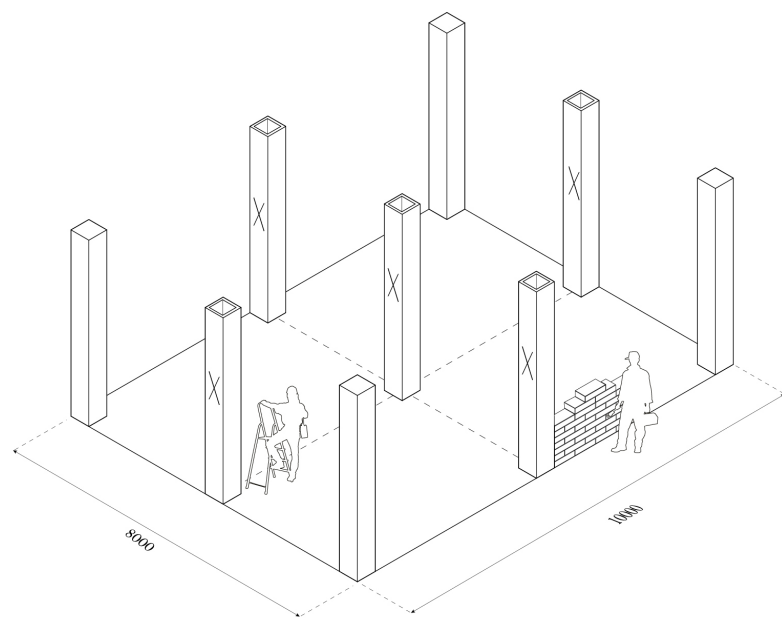


## *ELEMENTS OF STABILITY*

## Elements of stability



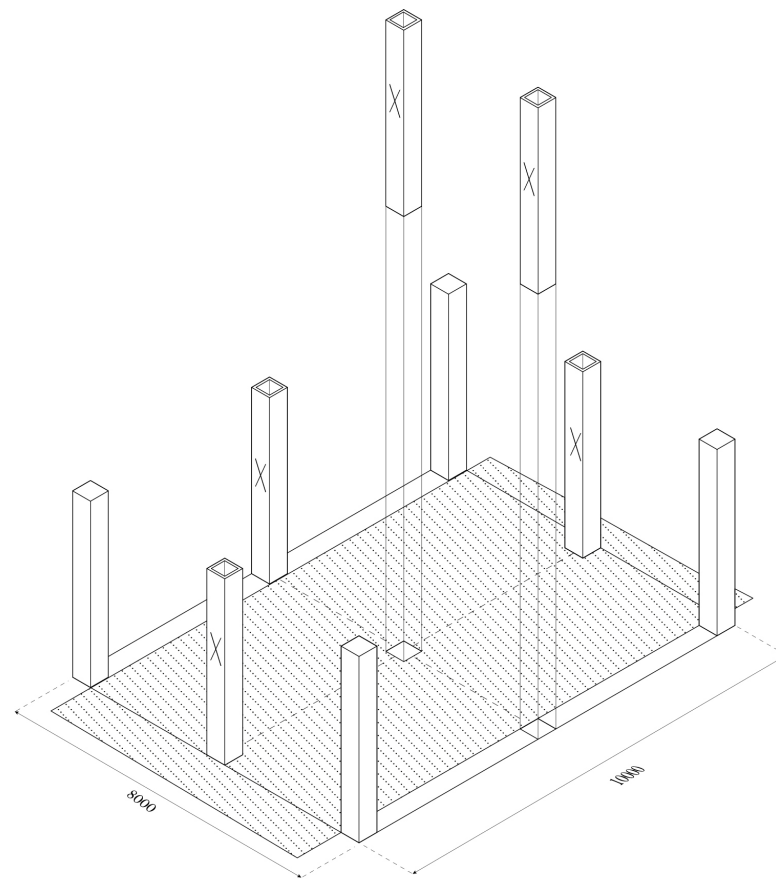
### **3.5 Catalogue**



\* ***SUPER GRID WITH SECUNDAIR GRID***

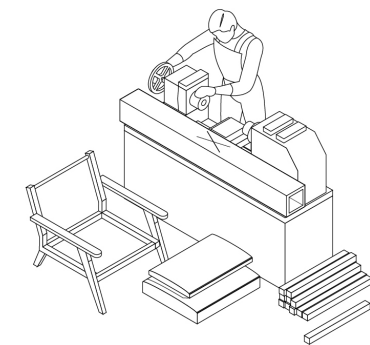
- removable columns are marked
- add your own facade

\* *In some strips the removable columns are already left out, because larger informal practices are expected.*



***REMOVE***

- possibility to grow inside the structure or to gain an open floor plan
- removable columns

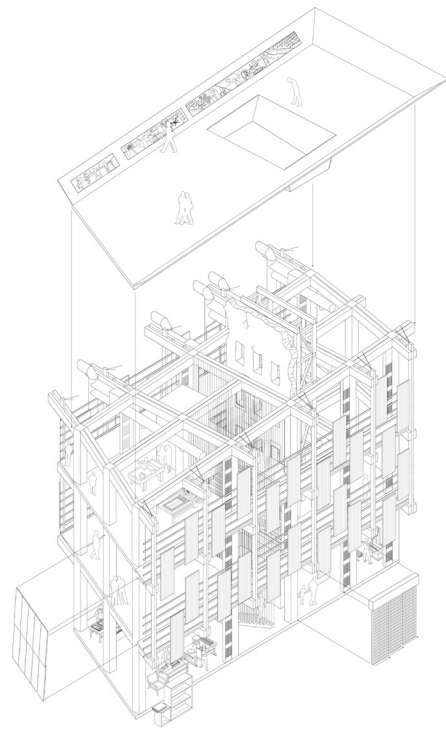


***REUSE***

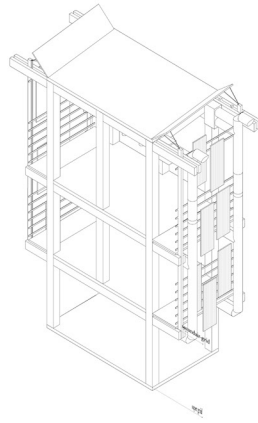
- New life possibilities
- Removed colums can be reused for structural addition or for crafts

Usage of the hybrid structure

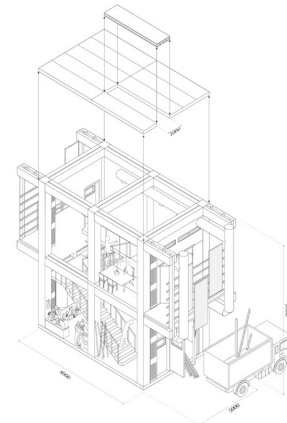




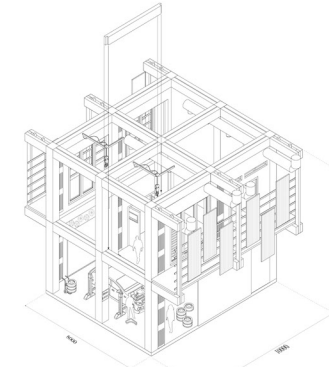
COMMUNAL WORKSHOP FUNCTIONS



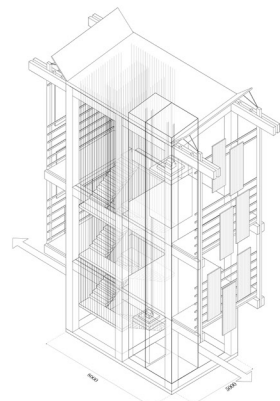
FRAGMENT  
HIERARCHY OF SUPER GRID AND SECONDARY GRID



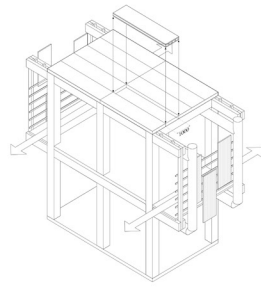
CONNECTED MODULES  
FOUR MODULES, ONE WORKSHOP BY REMOVING  
FLOOR PLATES



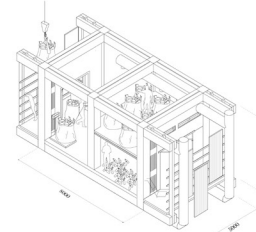
EIGHT MODULES, ONE WORKSHOP  
HIGH CEILING



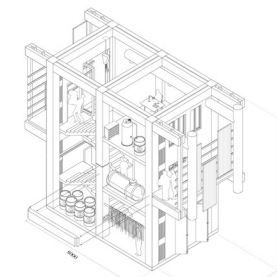
INTERNAL ROUTING & LOGISTICS



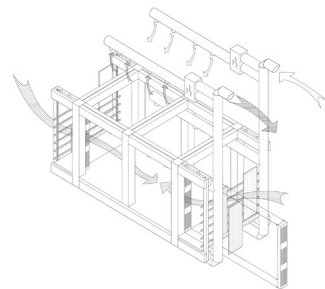
FLEXIBILITY BY PUSHING  
GALLERIES AND PIPELINES TO THE OUTSIDE  
OF THE STRUCTURE & BY FLOOR SYSTEM



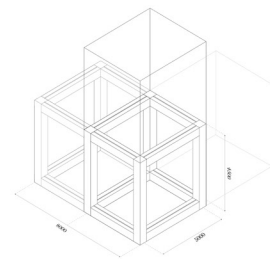
CONNECTED MODULES  
TWO MODULES, ONE WORKSHOP &  
STORAGE LEVEL



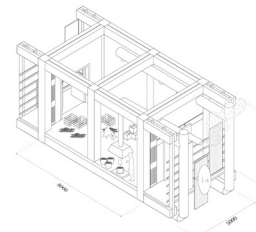
FOUR MODULES, ONE WORKSHOP  
THREE LEVELS



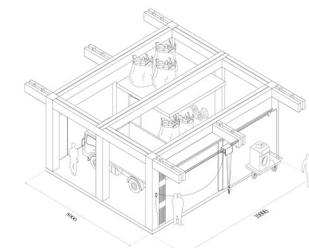
CLIMATE CONTROL



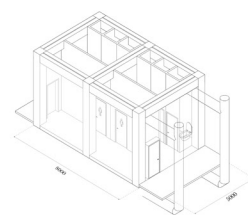
CONNECTED MODULES



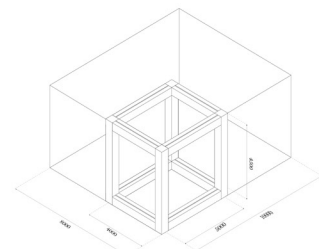
CONNECTED MODULES  
TWO MODULES, ONE WORKSHOP



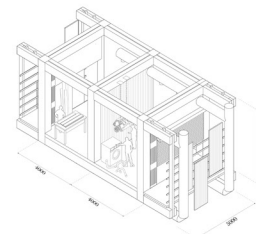
SUPER GRID MODULE



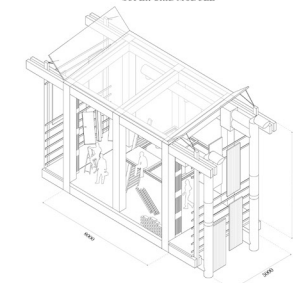
NECESSARY FUNCTIONS



SINGLE MODULE



ONE WORKSHOP IN ONE MODULE



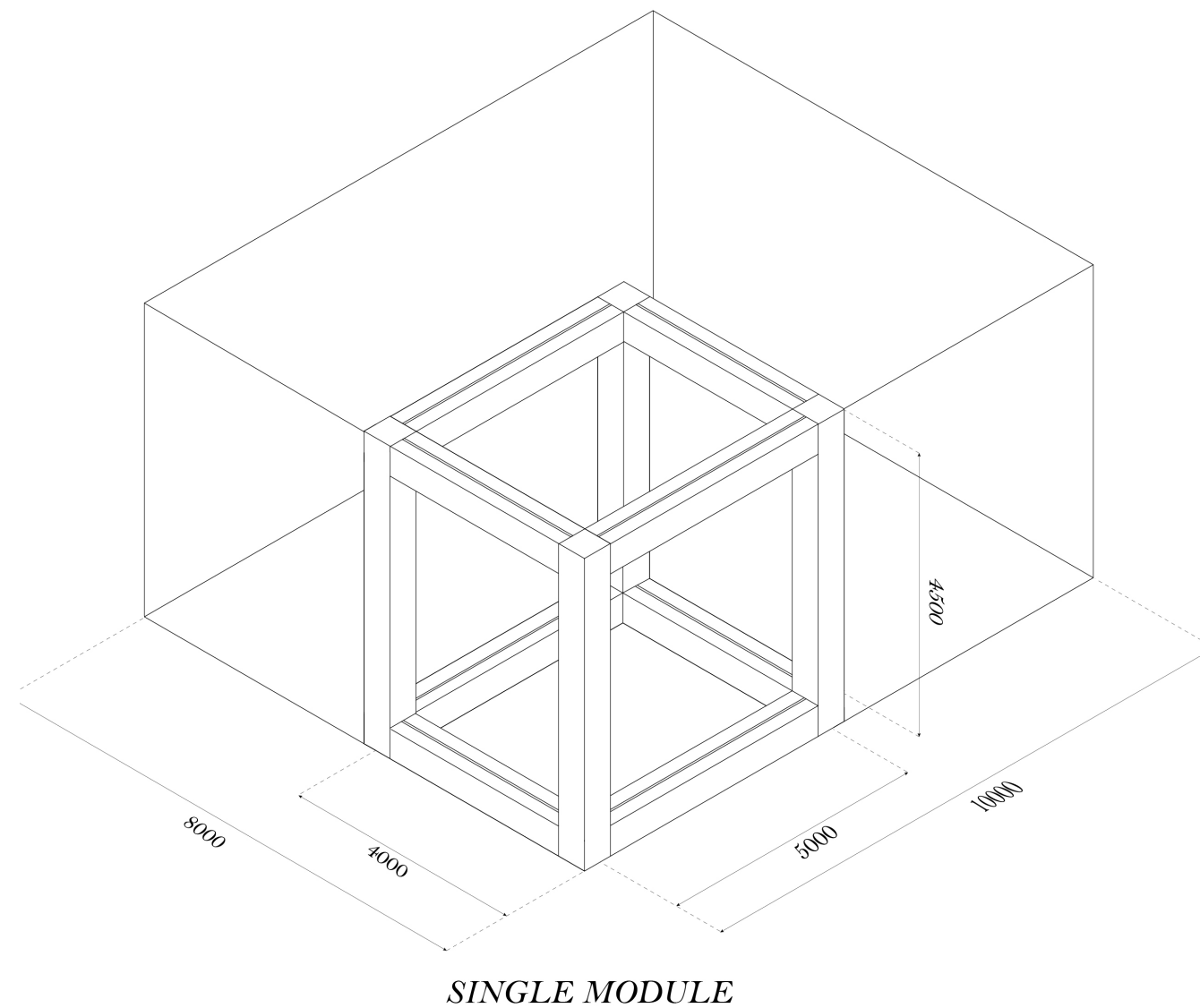
EXCEPTION IN THE GRID DUE TO THE  
SLOPED ROOF



DESIGNED ELEMENTS  
ROLE OF THE  
ARCHITECT

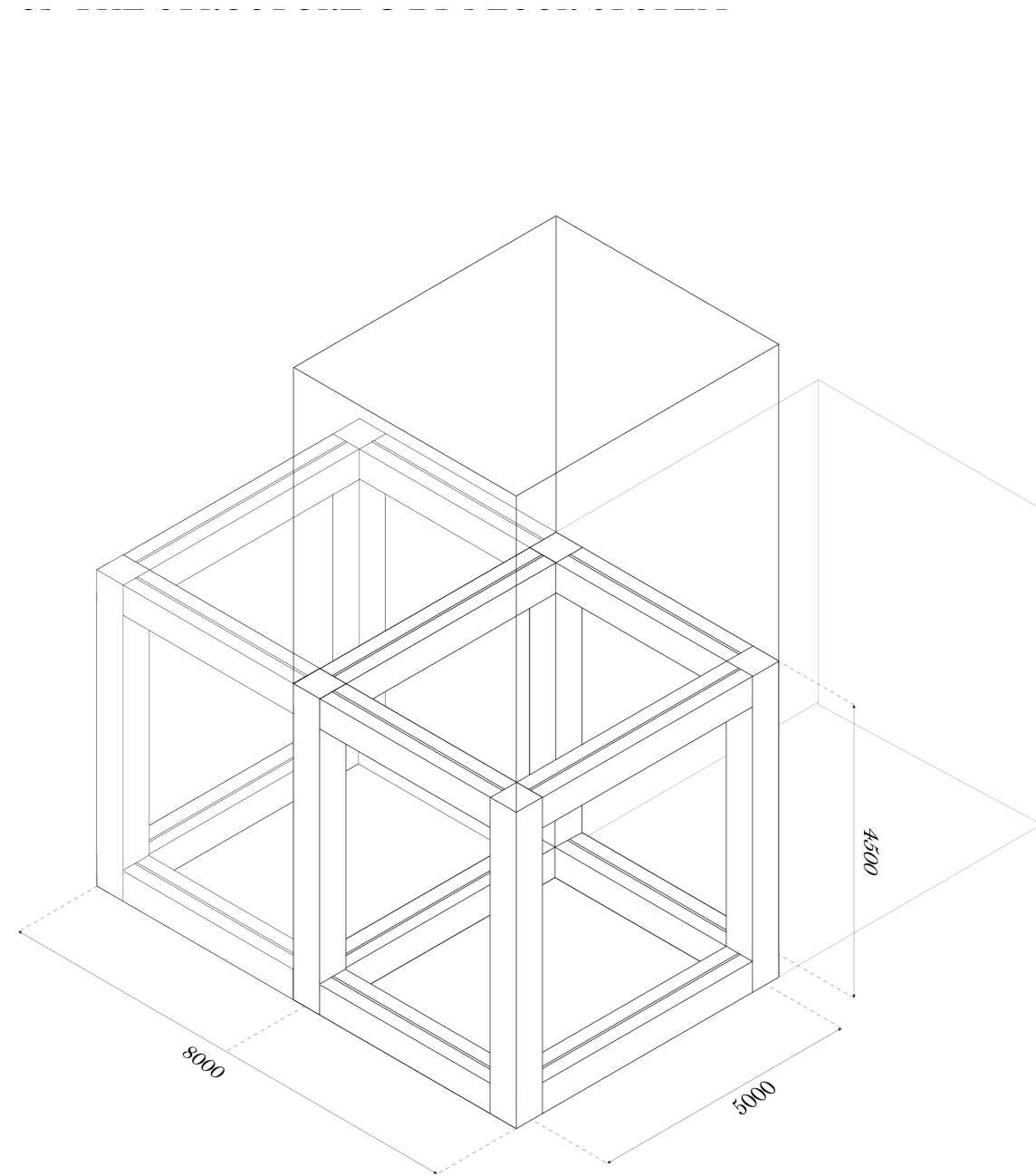
THE HYBRID STRUCTURE  
HYBRID STRUCTURE

OCCUPATION  
SELF REGULATION OF INFORMALITY



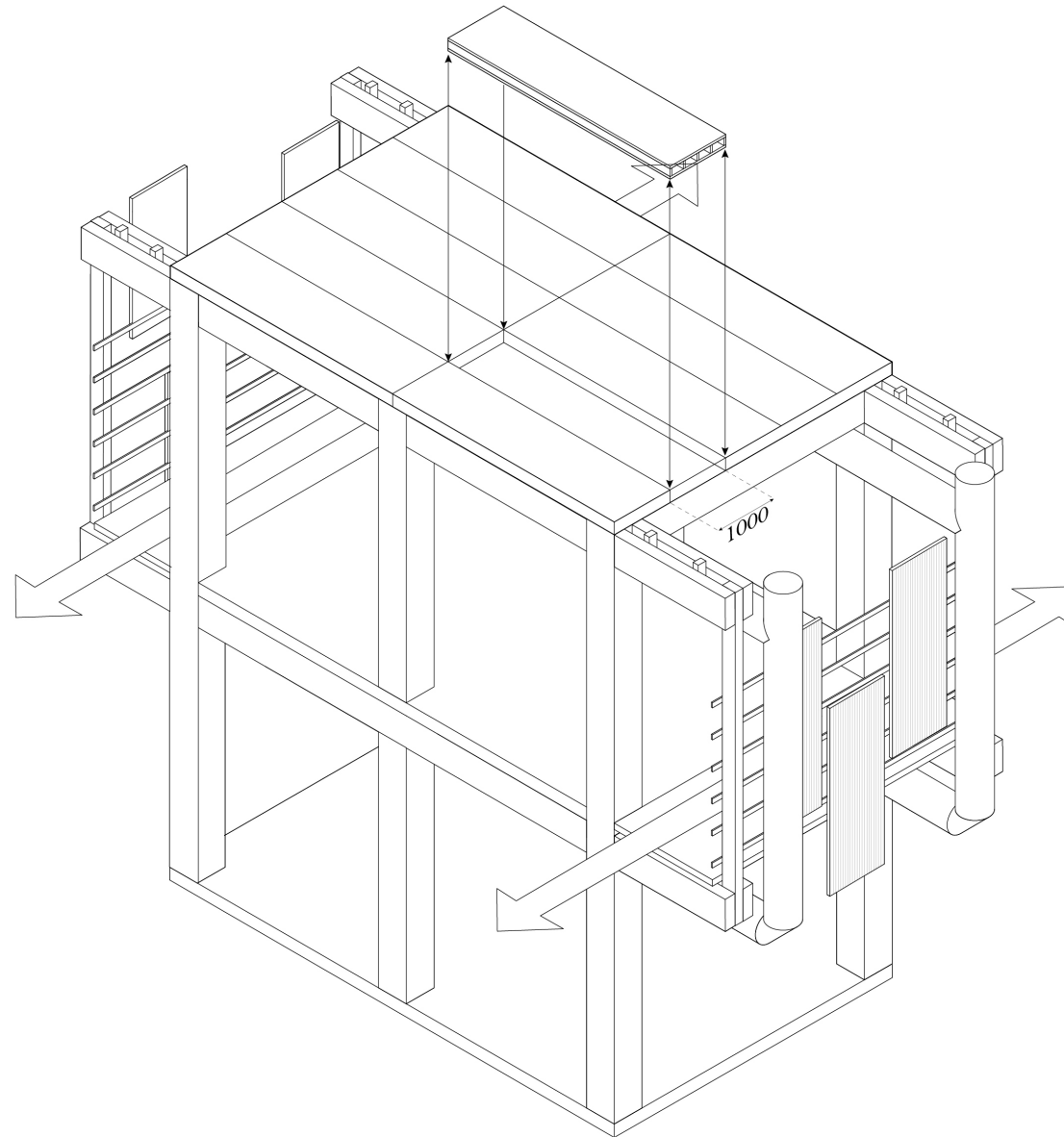
Completion of the hybrid structure





*CONNECTED MODULES*

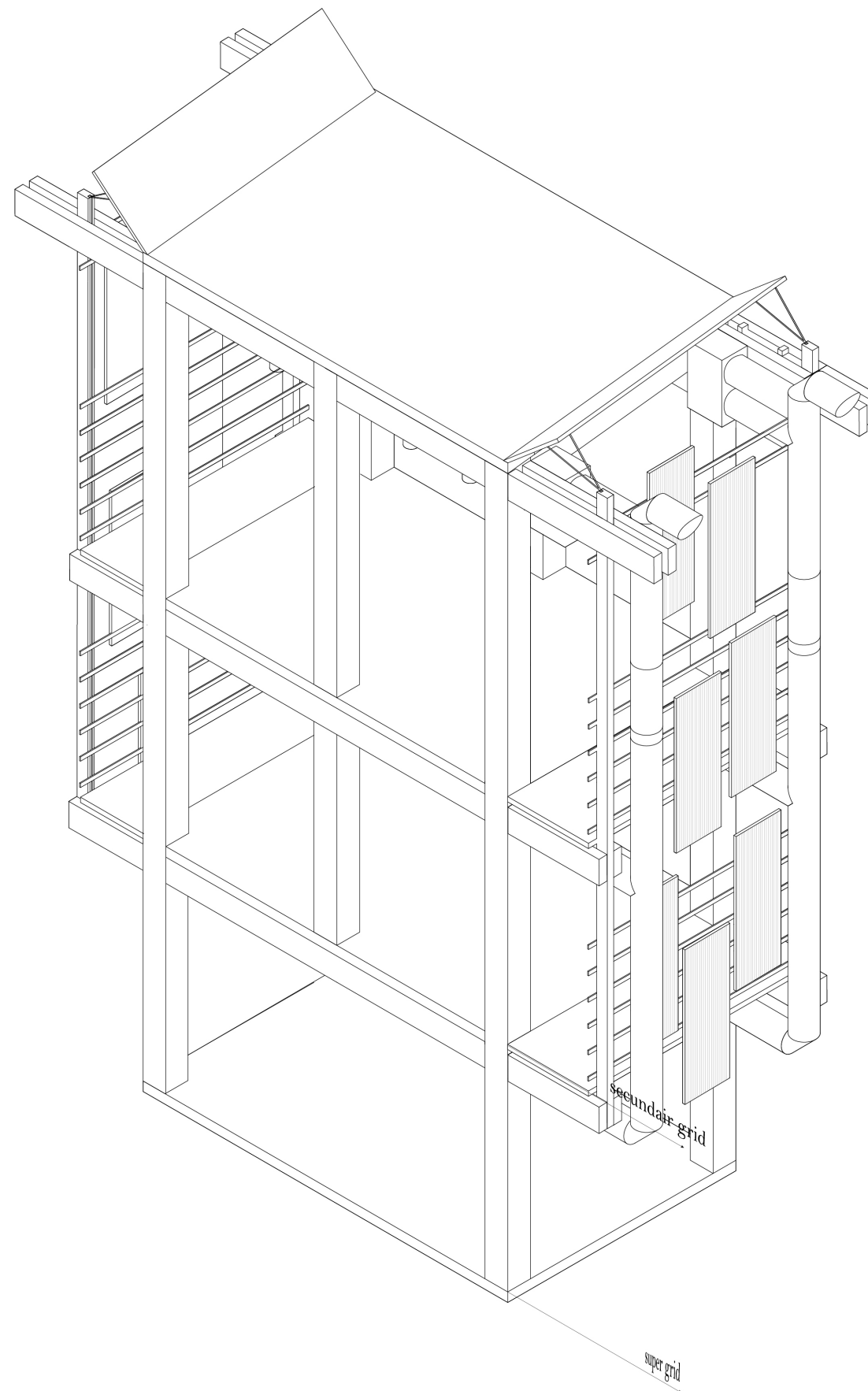
Completion of the hybrid structure



*FLEXIBILITY BY PUSHING  
GALLERIES AND PIPELINES TO THE OUTSIDE  
OF THE STRUCTURE & BY FLOOR SYSTEM*

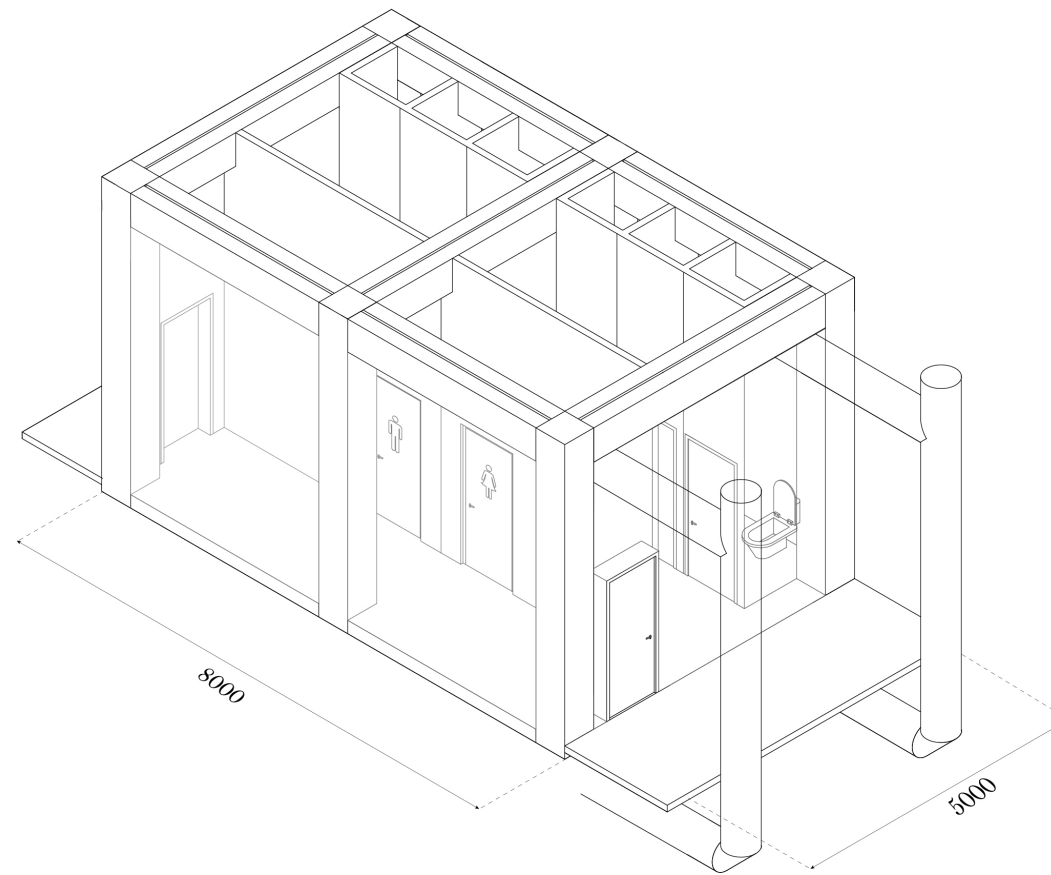
Completion of the hybrid structure





*FRAGMENT  
VARIETY OF SUPER GRID AND SECUNDAIR GRID*

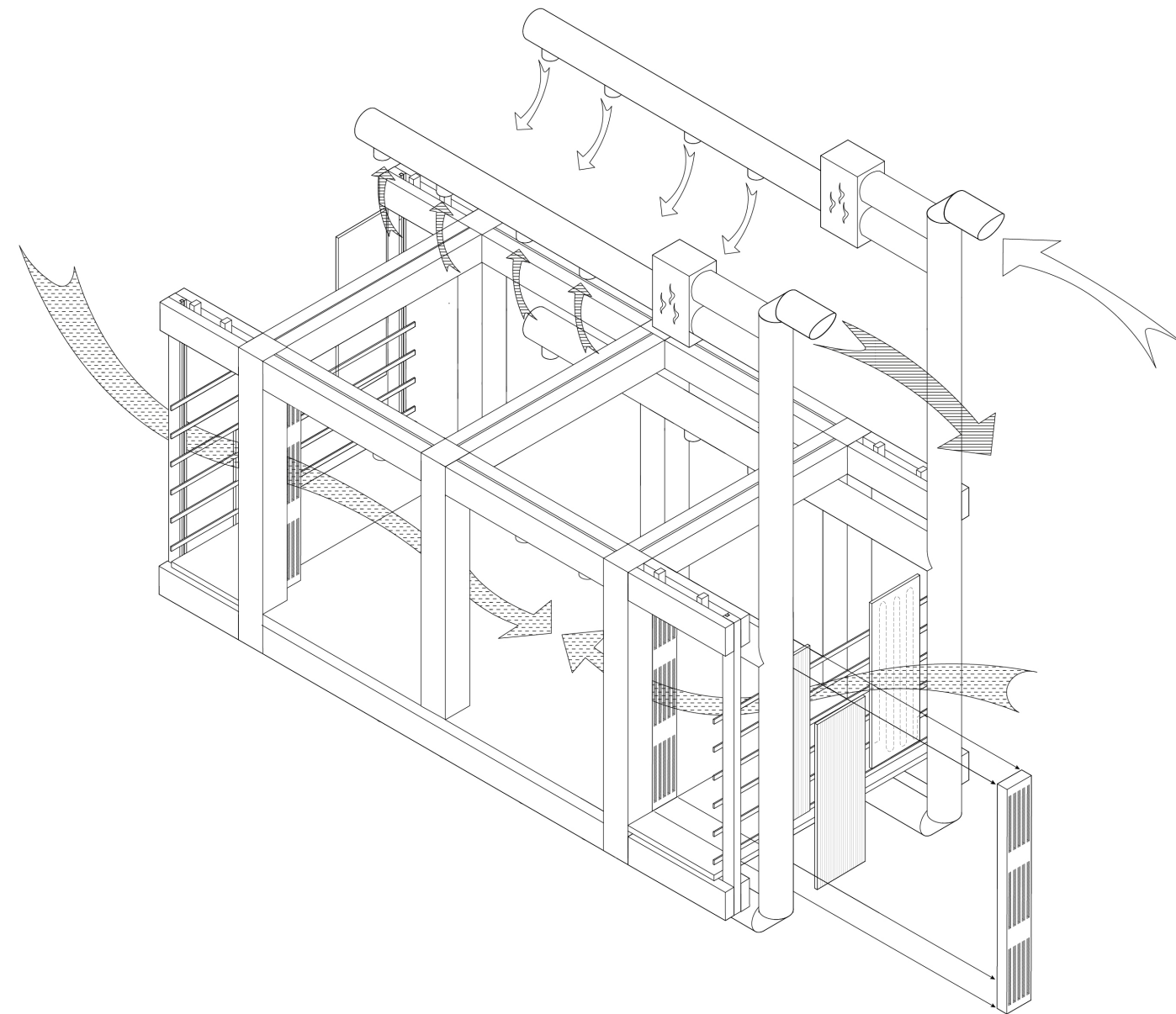
Completion of the hybrid structure



*NECESSARY FUNCTIONS*

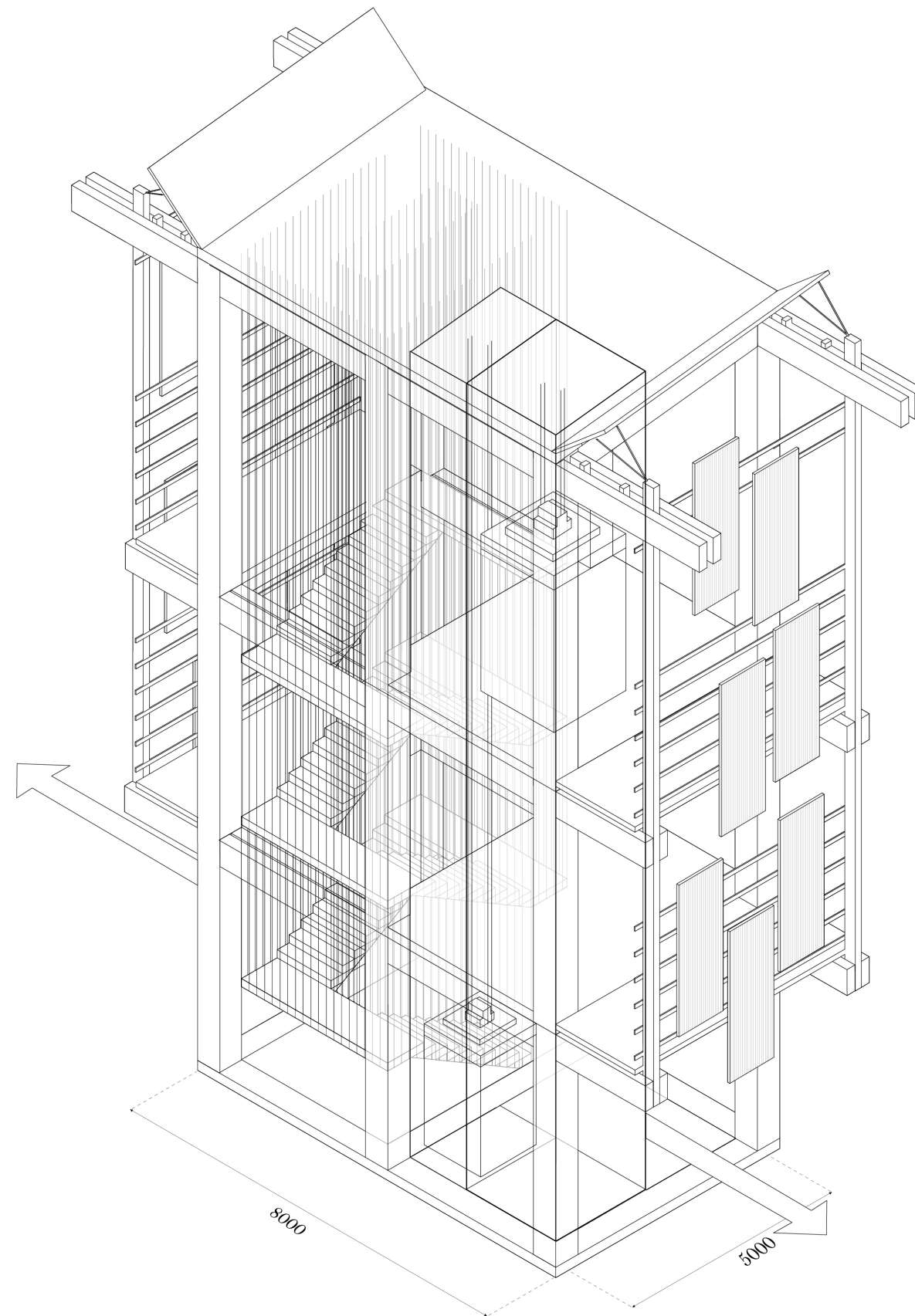
Designed elements by the architect





*CLIMATE CONTROL*

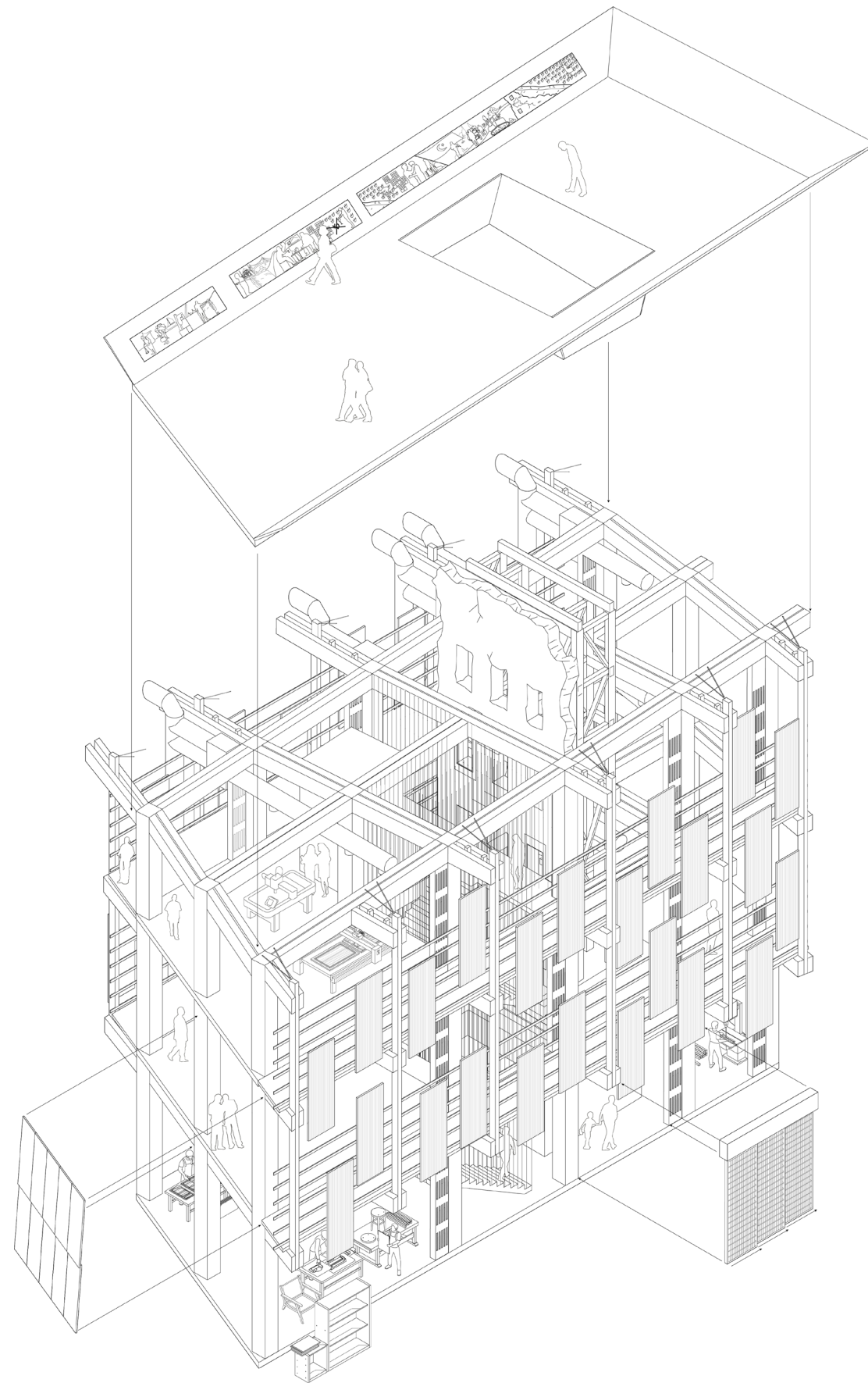
Designed elements by the architect



*INTERNAL ROUTING & LOGISTICS*

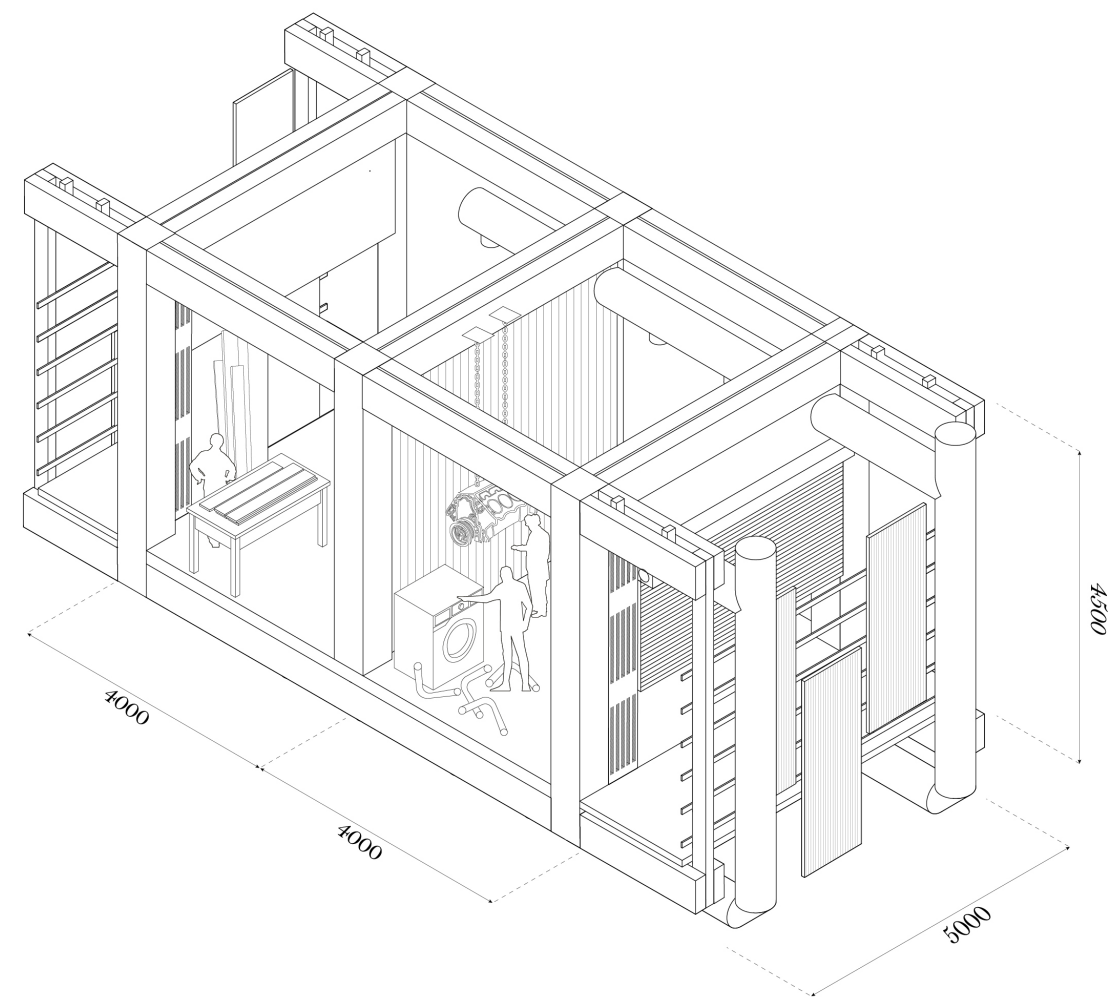
Designed elements by the architect





*COMMUNAL WORKSHOP FUNCTIONS*

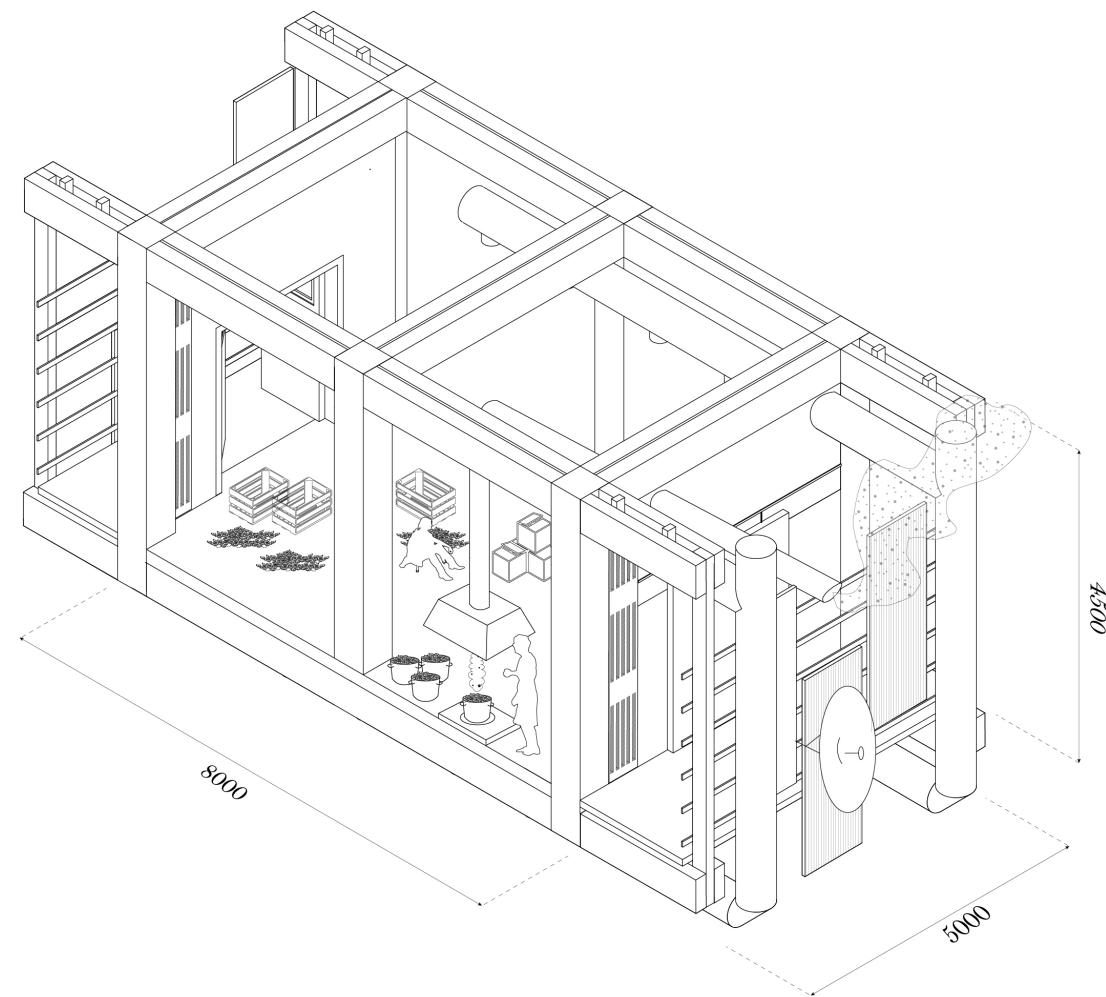
Designed elements by the architect



*ONE WORKSHOP IN ONE MODULE*

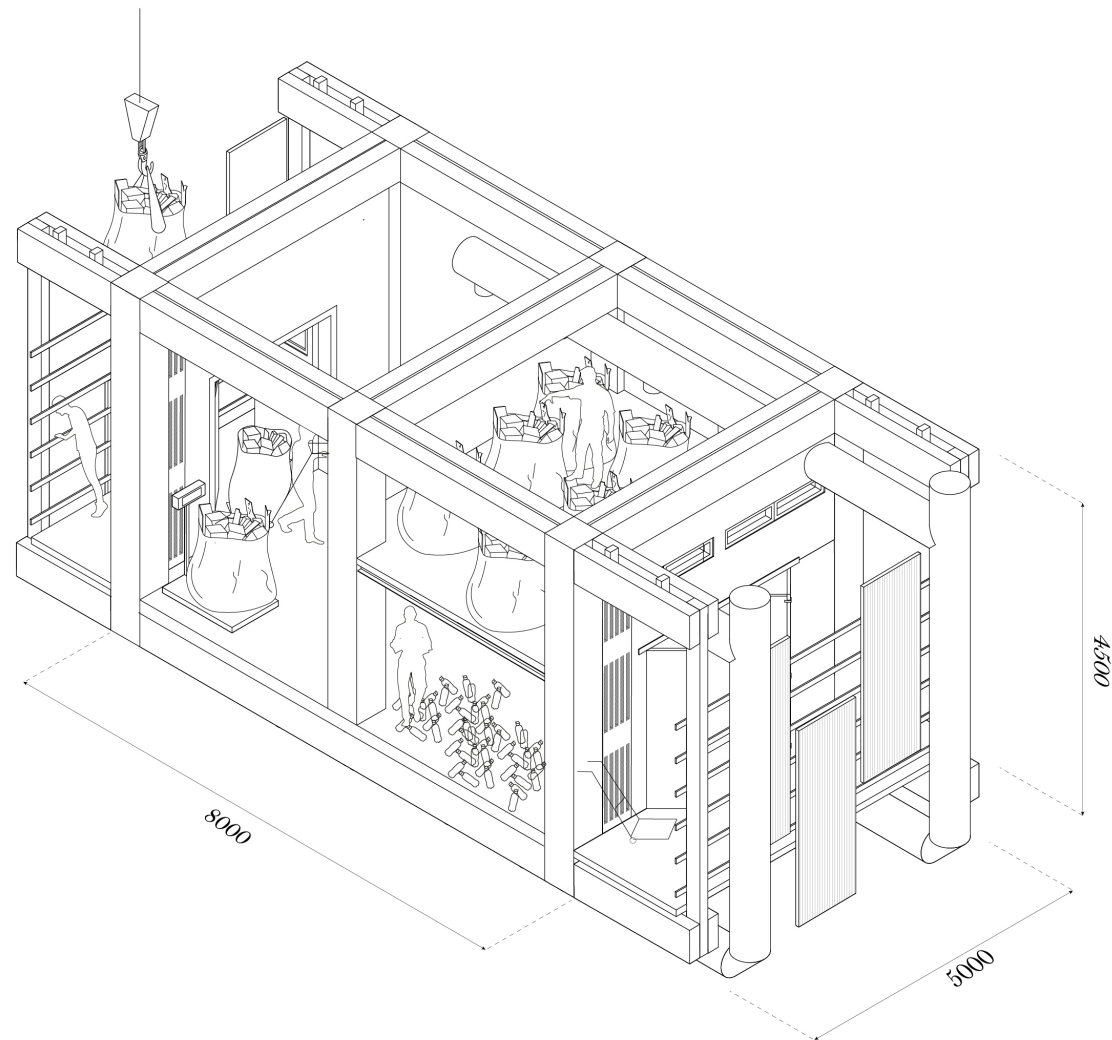
Occupation of the informal practices





*CONNECTED MODULES  
TWO MODULES, ONE WORKSHOP*

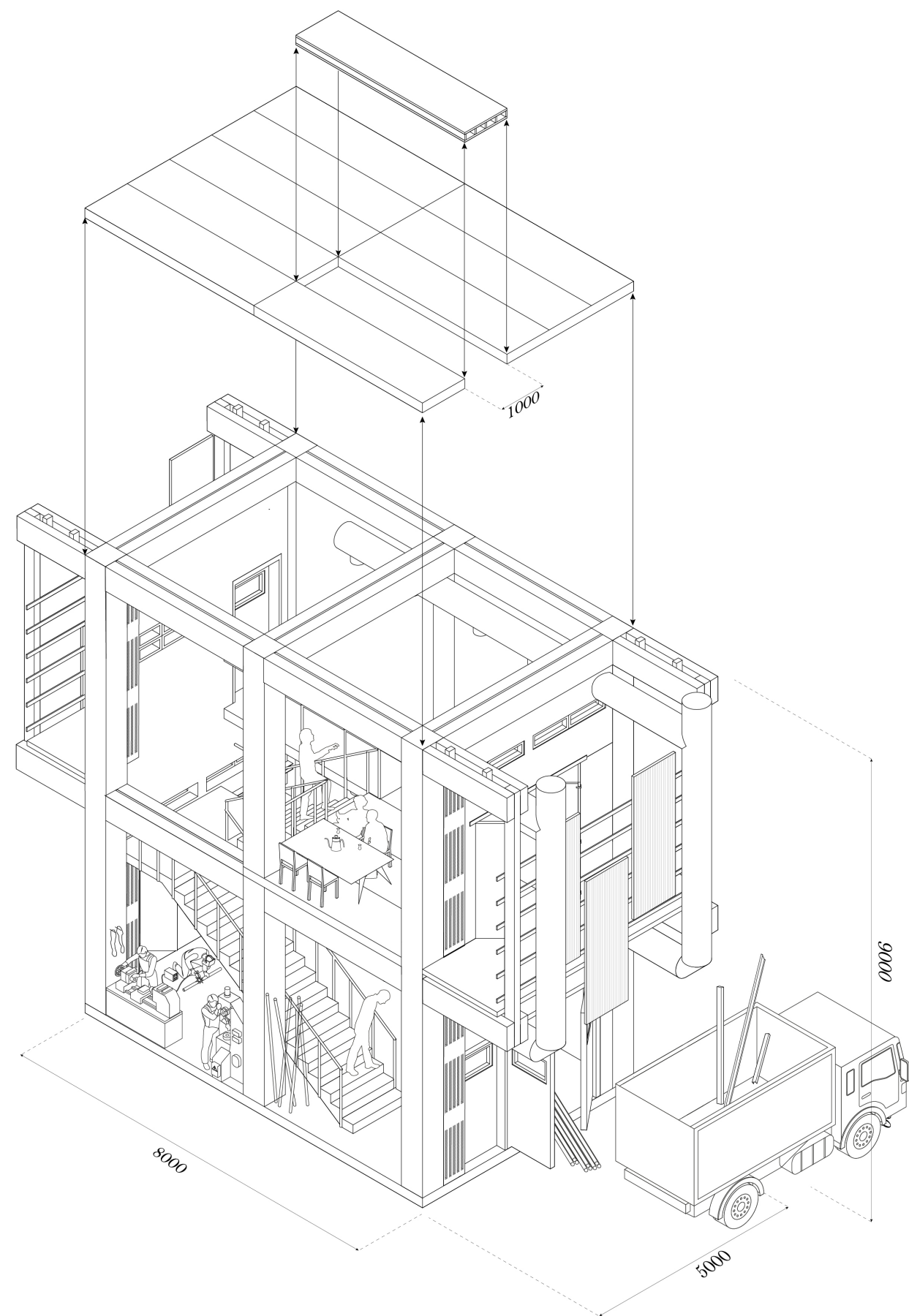
Occupation of the informal practices



*CONNECTED MODULES  
TWO MODULES, ONE WORKSHOP &  
STORAGE LEVEL*

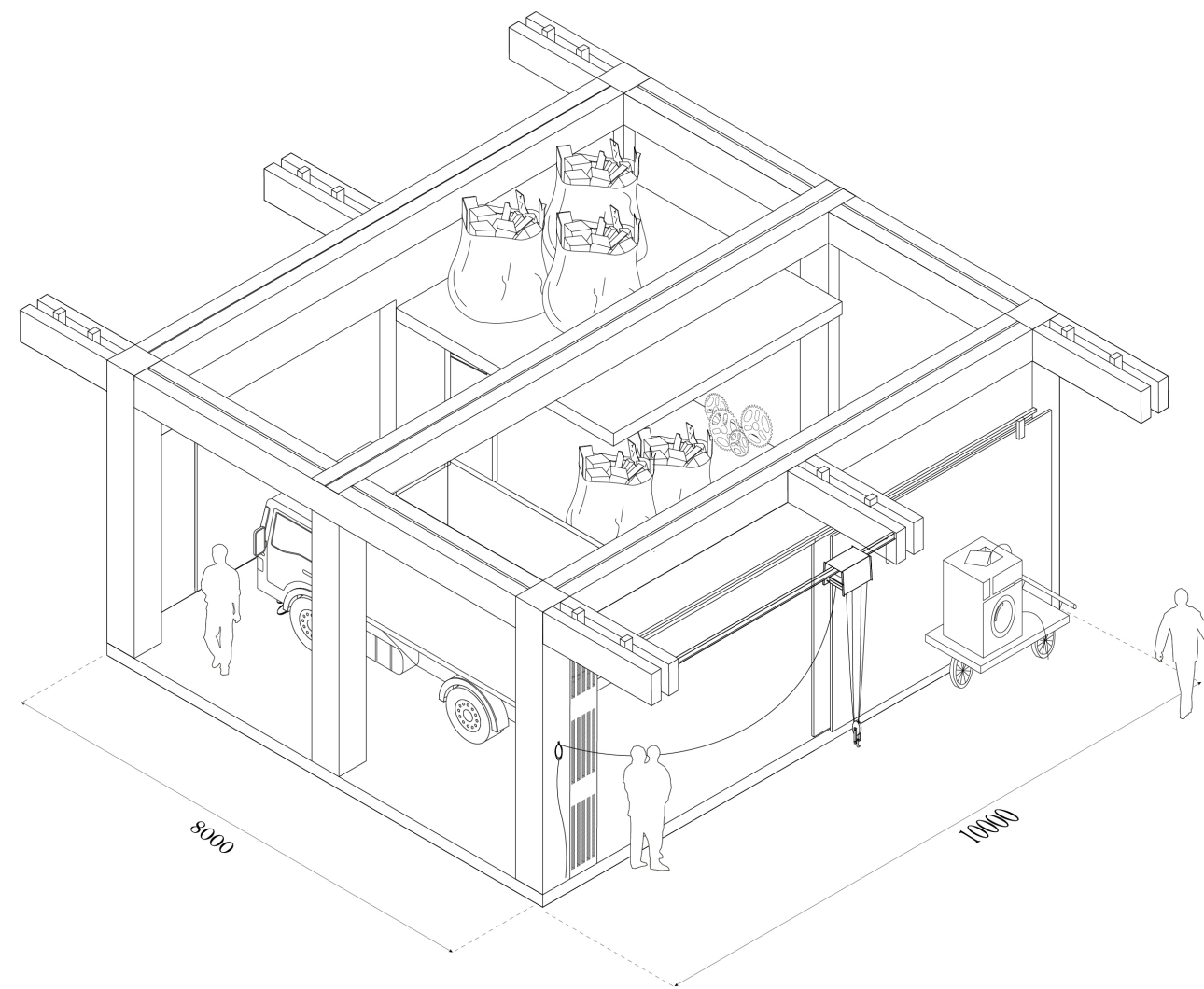
Occupation of the informal practices





*CONNECTED MODULES*  
*FOUR MODULES, ONE WORKSHOP BY REMOVING*  
*FLOOR PLATES*

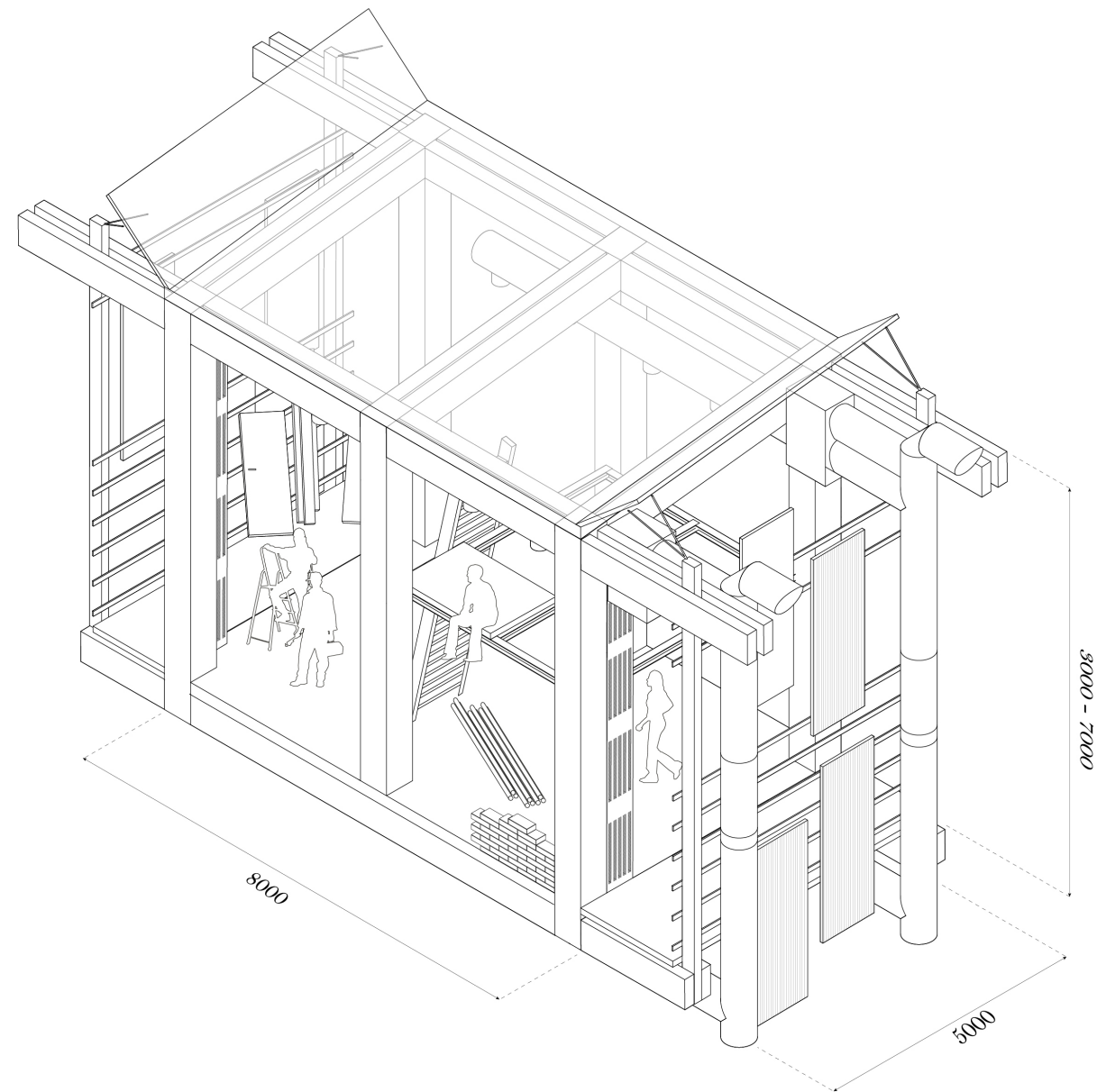
Occupation of the informal practices



*SUPER GRID MODULE*

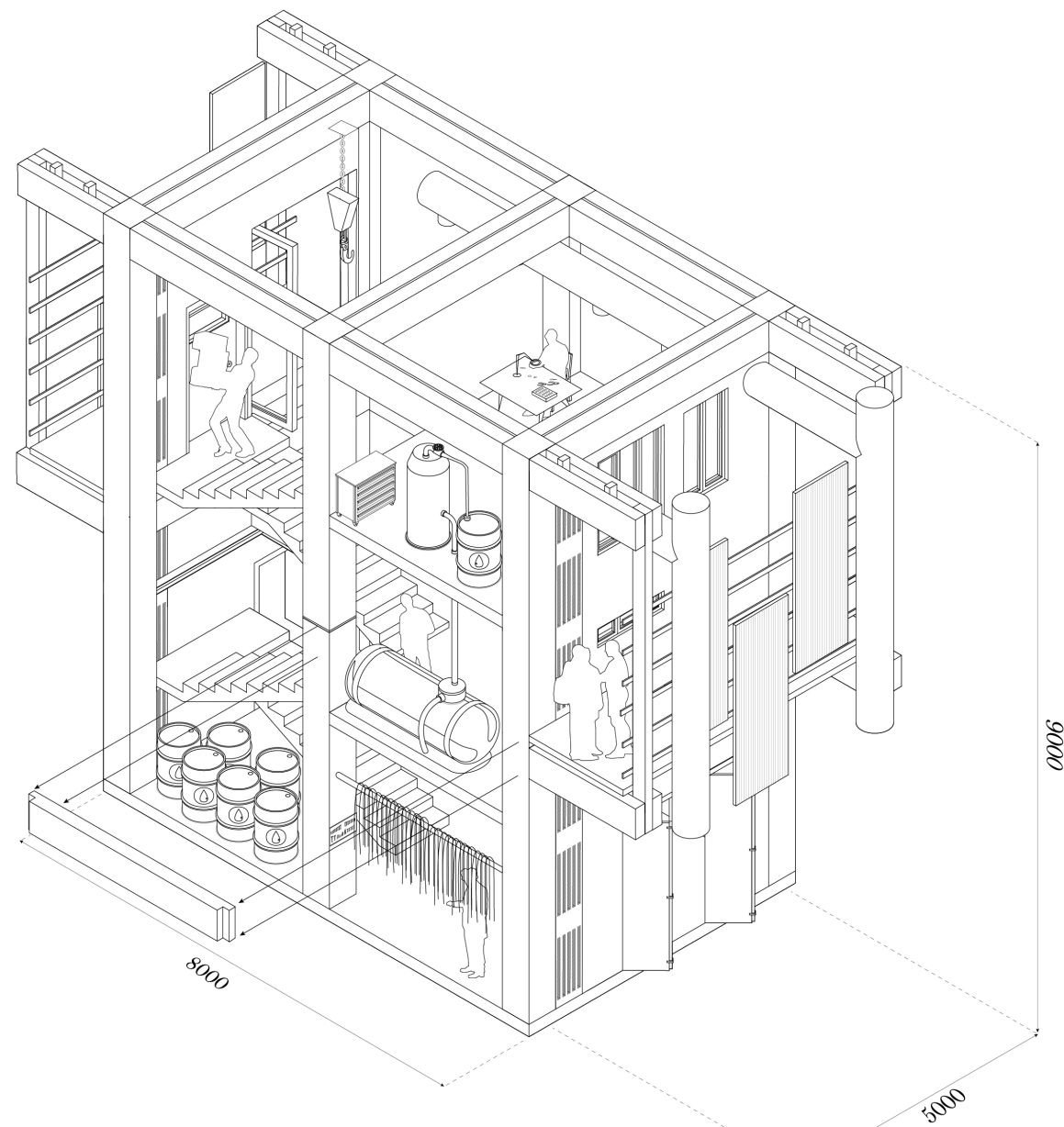
Occupation of the informal practices





*EXCEPTION IN THE GRID DUE TO THE  
SLOPED ROOF*

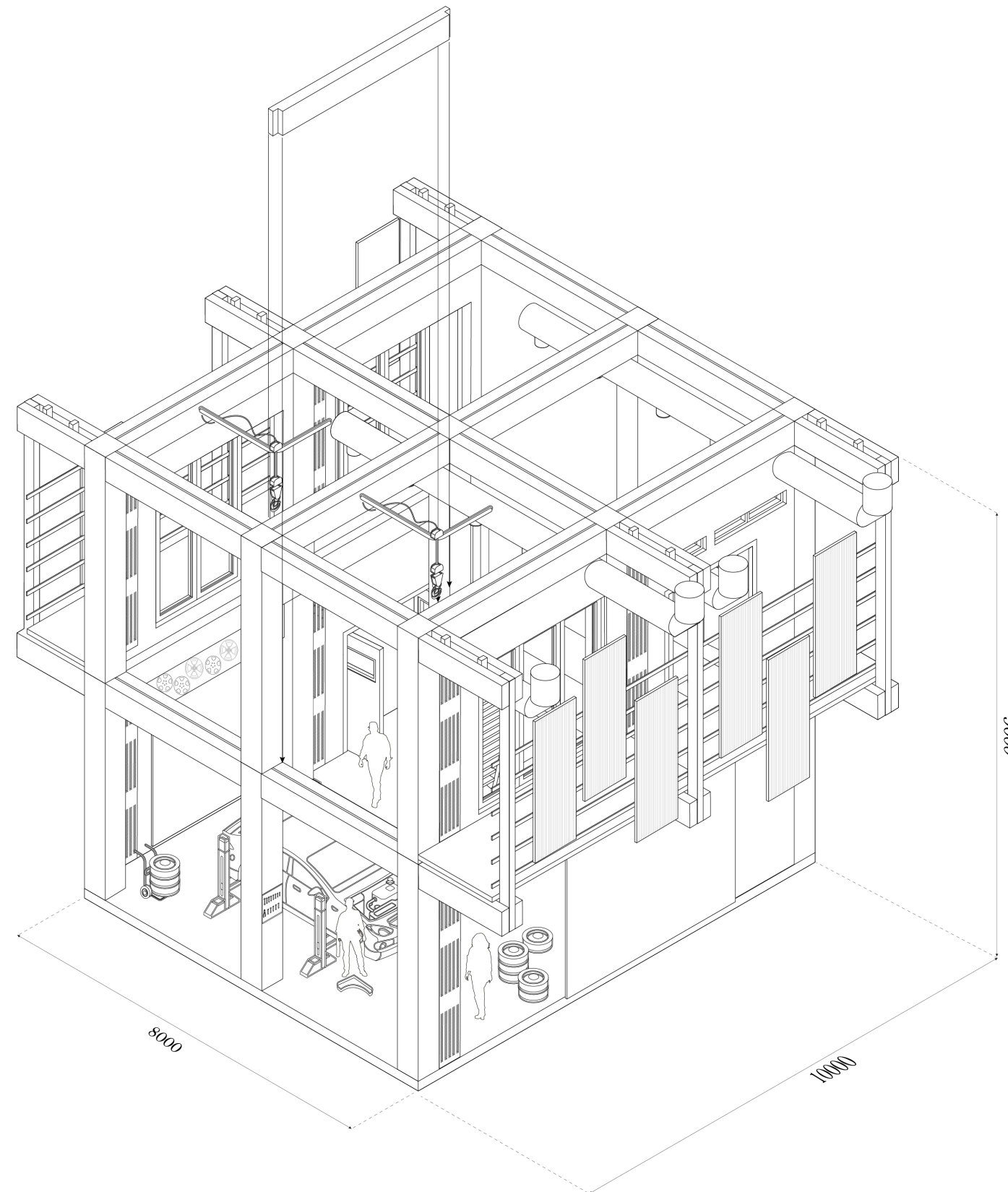
Occupation of the informal practices



*FOUR MODULES, ONE WORKSHOP  
THREE LEVELS*

Occupation of the informal practices





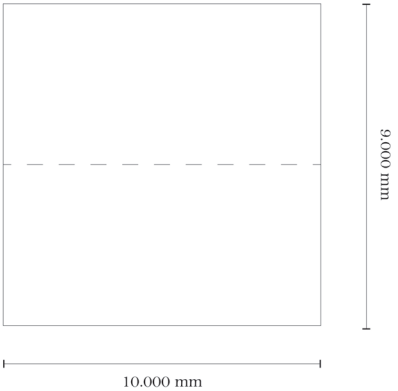
*EIGHT MODULES, ONE WORKSHOP  
HIGH CEILING*

Occupation of the informal practices

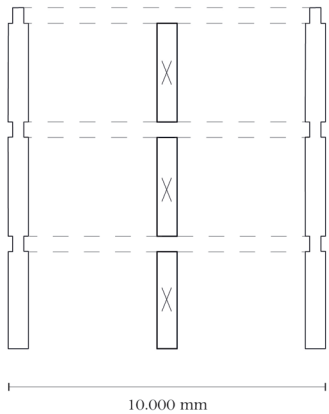
## **3.6 The Operation**

HOW TO LOSE CONTROL?  
adaptivity

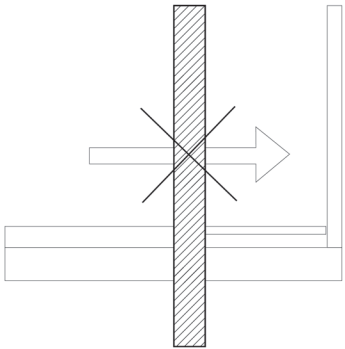
RULES OF CONTROL  
to guide a small part of the process  
via a protocol



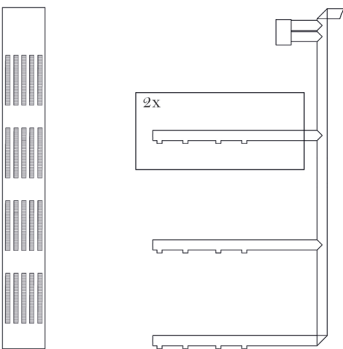
1 MAXIMUM WORKSHOP SIZE  
Control over the maintenance of  
small-scale practices



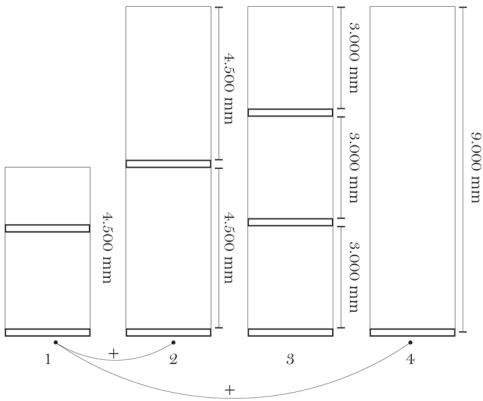
2 TRANSFORMATION TO SUPERGRID  
Only marked columns are allowed to be  
removed



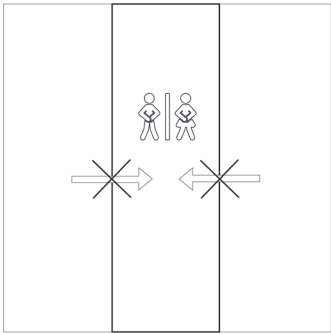
3 KEEP ROUTING FREE  
Galleries on both sides of the strips are  
not allowed to be occupied due growing  
practices



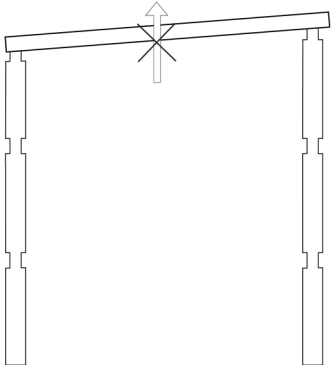
4 NON REMOVABLE CLIMATE ELEMENTS  
Climate panels cannot be replaced.  
At least two ventilation tubes per workplace,  
because of heating.



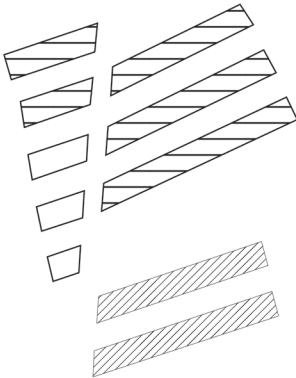
5 MAXIMUM OF FOUR FLOOR CONFIGURATIONS  
Climate panels cannot be replaced.  
At least two ventilation tubes per workplace,  
because of heating.  
Combinations between cofigurations 1, 2 & 4  
are possible



6 NECESSARY FUNCTIONS CANNOT BE  
PRIVATIZED  
Necessary functions such as toilet units,  
communal platforms and internal routing  
cores cannot be occupied by an informal  
practice. However communal strips can be  
privatized in the future in the case it turns  
out to be unnecessary.



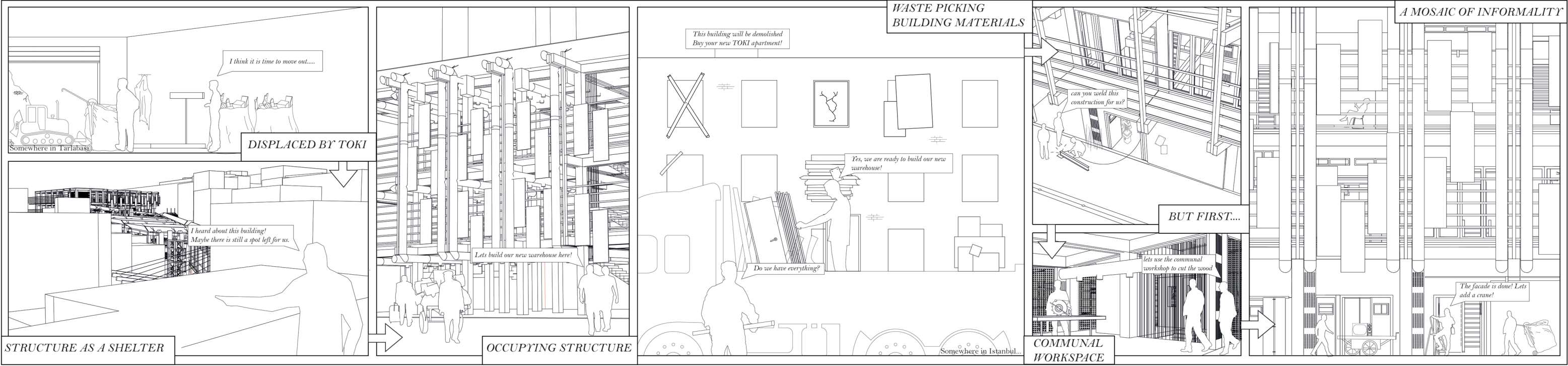
7 SLOPED ROOFS ARE THE LIMIT OF VERTICAL  
GROWTH  
The building cannot get higher than the  
sloped roofs



8 THE SYSTEM AS A WHOLE MUST BE COMPLIED  
WITH \*  
The system of sorting, disassembly, reas-  
sembly, and community and trade locations  
must remain intact.  
  
\* If it turns out that this system can be  
optimized by a different arrangement of  
the strips, this rule can be broken.

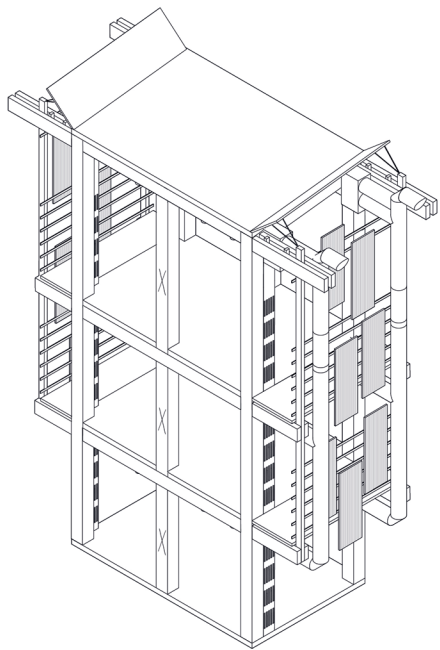


TOOLS OF SELF REGULATION  
A story about a growing structure

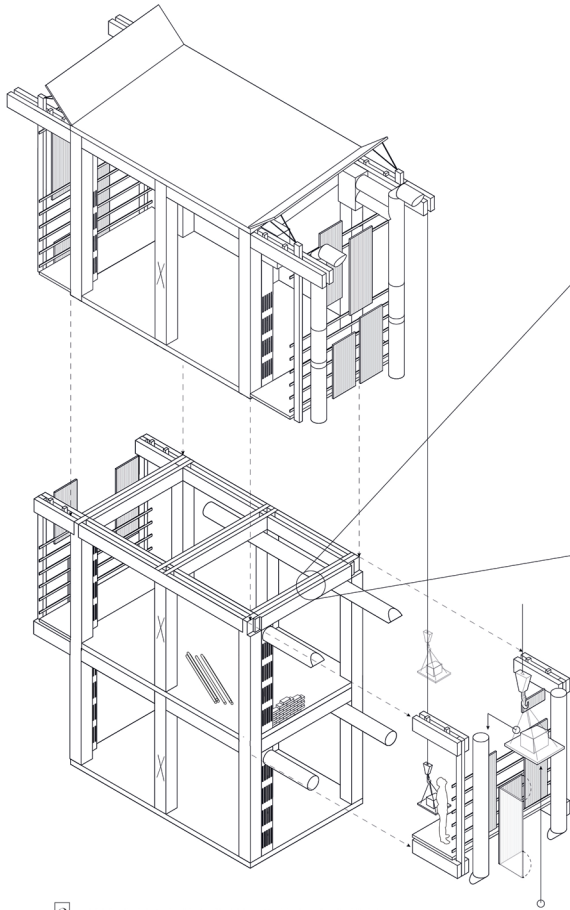


A story about self regulation

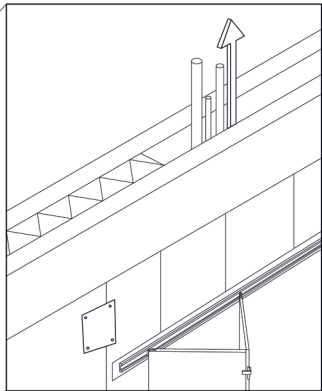
*BUILD YOUR OWN WORKSHOP*  
The process of losing control



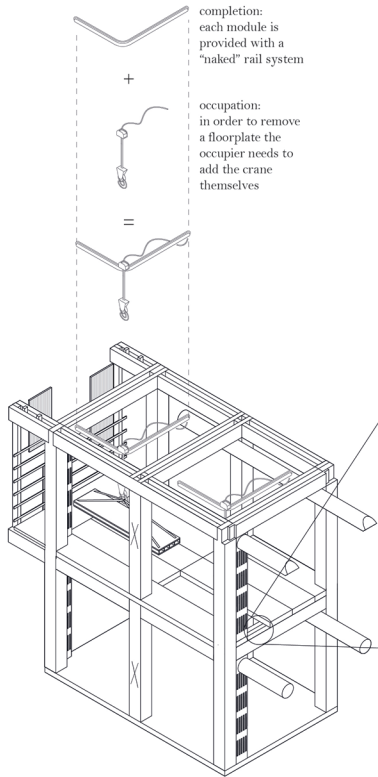
1 *NAKED STRUCTURE*  
The completed structure without being occupied



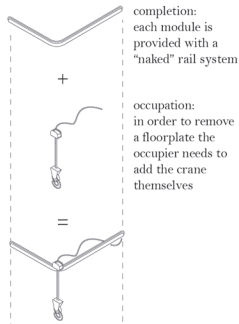
2 *ADDITION OF YOUR OWN FACADE*  
Materials can be lifted with cranes attached to the structure



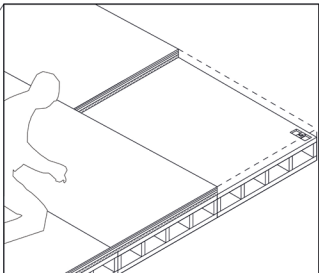
rhythm of two CLT beams, one to add the facade to the construction, the other is placed with a gap in between for cables to be placed or to fill up with insulation.



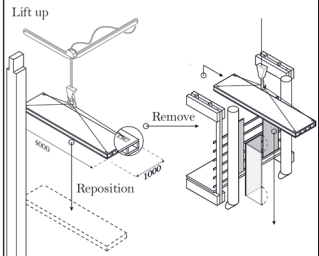
3 *REMOVE A FLOOR*  
How to remove a wooden hollow core slab floor



completion: each module is provided with a "naked" rail system  
occupation: in order to remove a floorplate the occupier needs to add the crane themselves



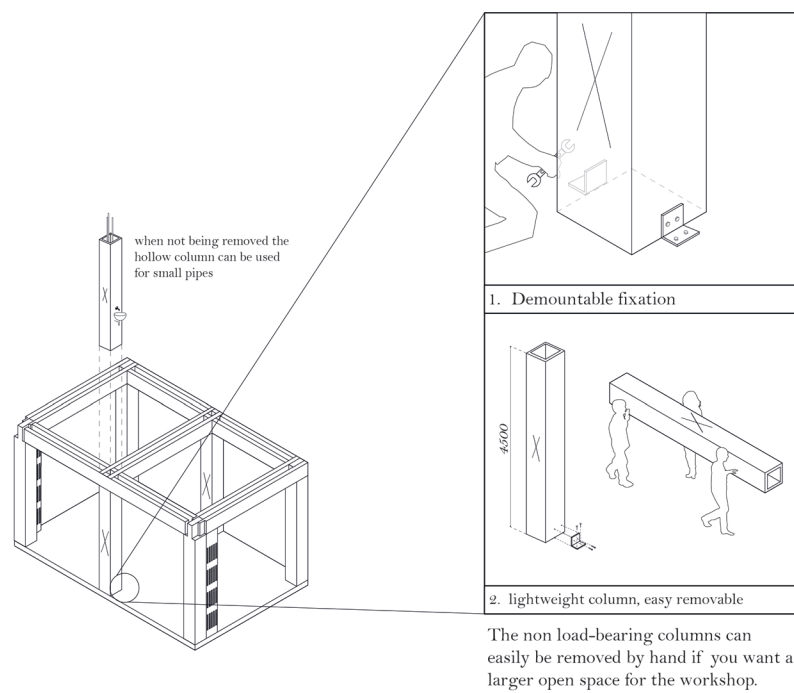
1. Remove dry screed floor



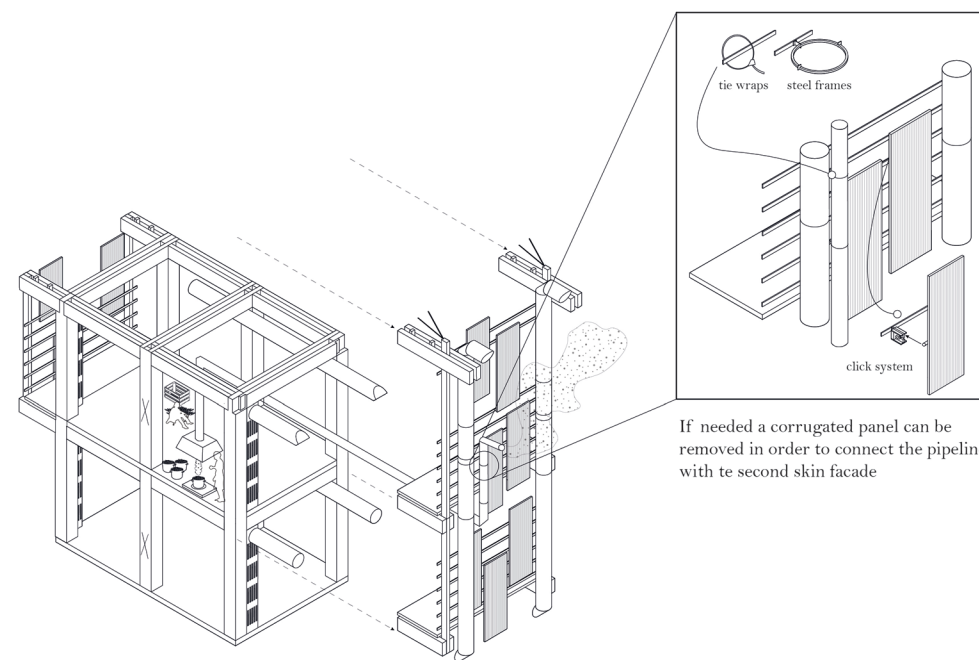
2. Lift up wooden hollow core slab floor with crane in roof

Lightweight floors give the option to be removed or to be repositioned to create a new spatial configuration.

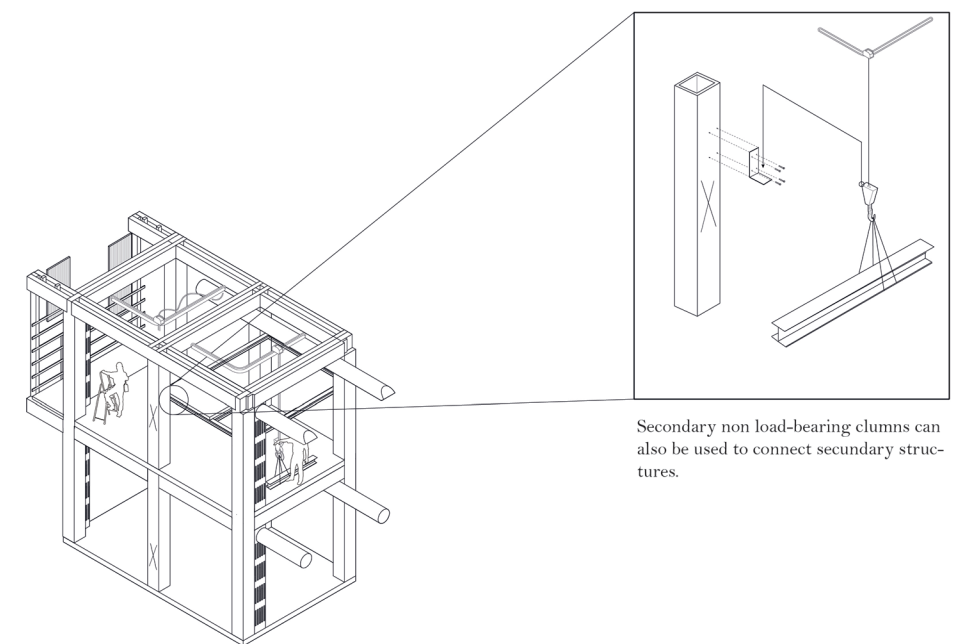
Build your own workshop



- 4 REMOVE A COLUMN  
Change your gridsystem from the secondary grid into the primary grid!



- 5 CONNECT EXTRA PIPELINES  
Connect big pipelines to your workshop with the skin facade, if necessary



- 6 ADD A SECONDARY STRUCTURE  
How to add a new floor and structure?

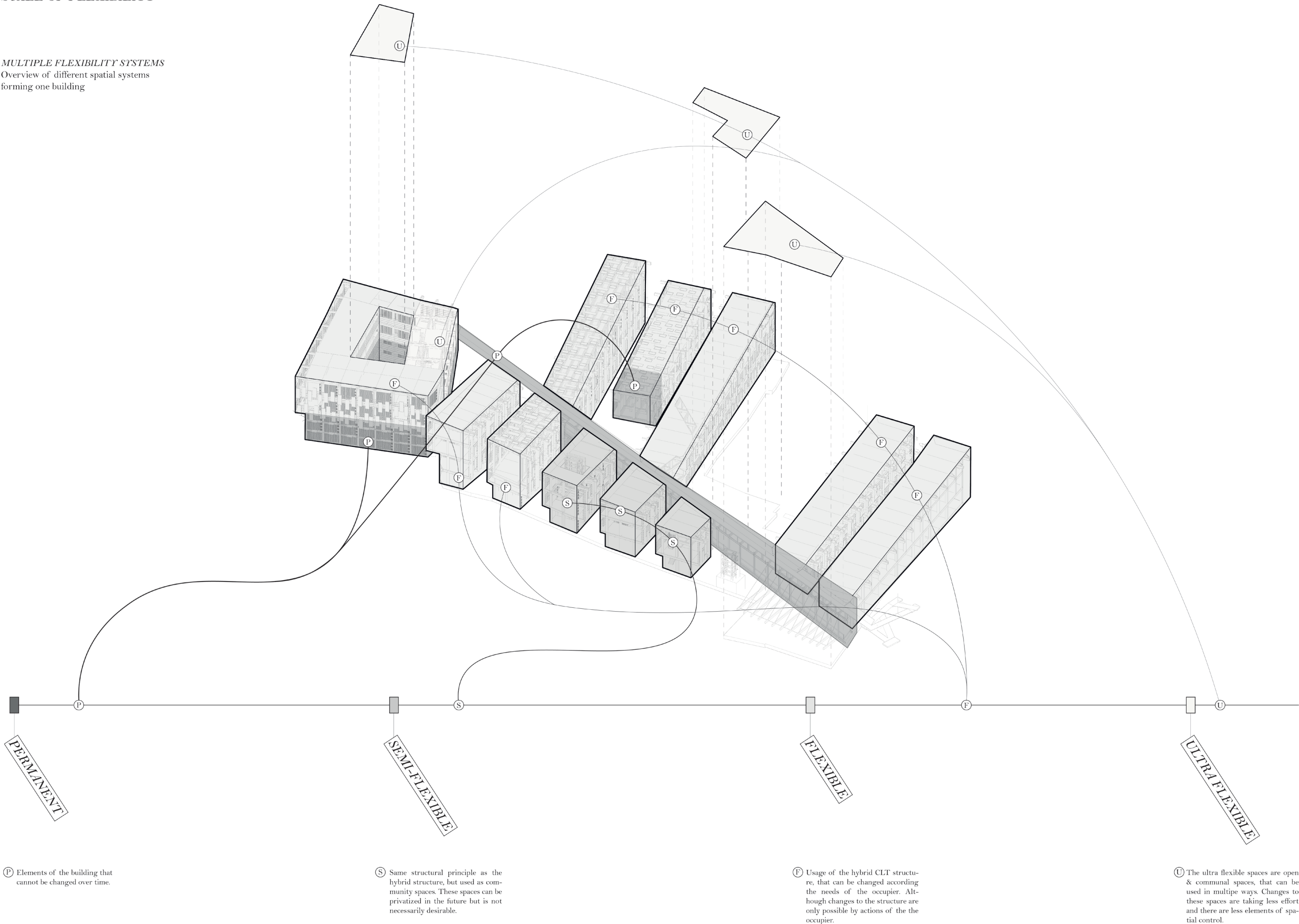
Build your own workshop



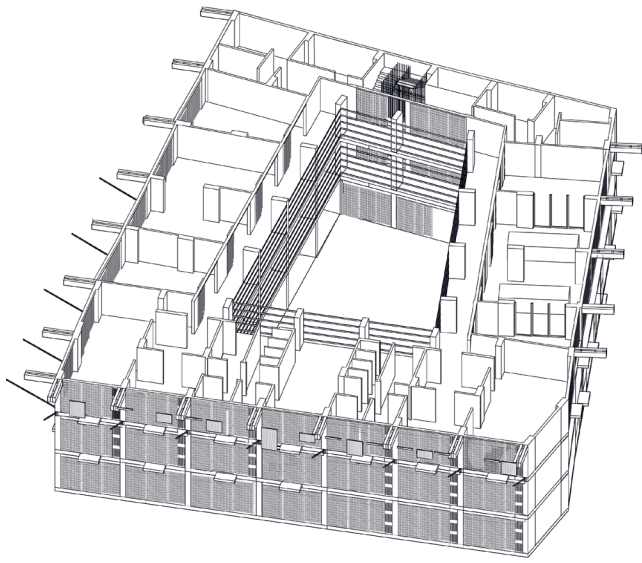
### **3.7 Scale of Flexibility**

SCALE OF FLEXIBILITY

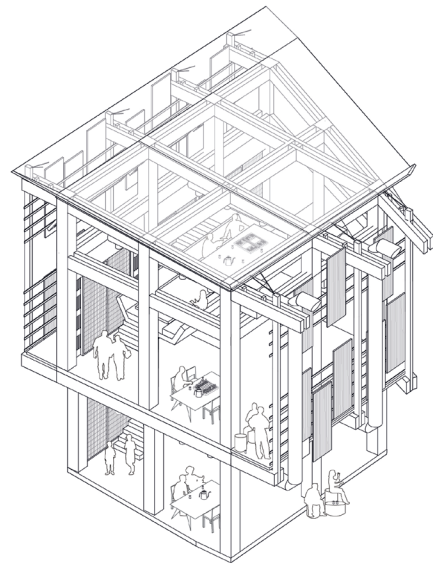
MULTIPLE FLEXIBILITY SYSTEMS  
Overview of different spatial systems  
forming one building



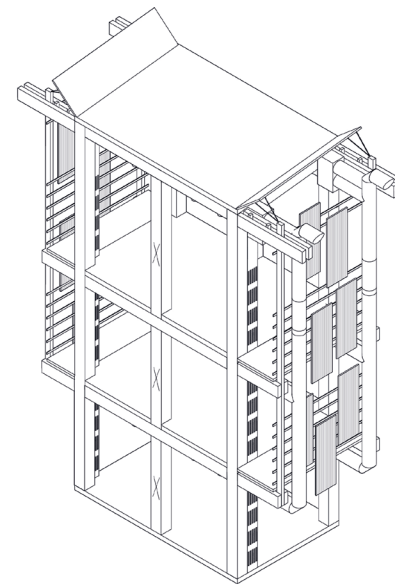
Scale of flexibility



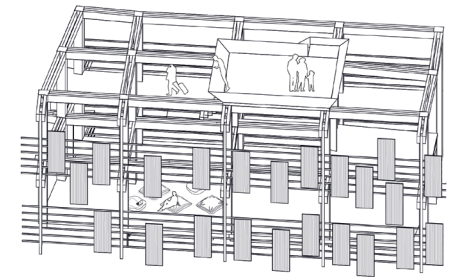
**1 RE-USED CONCRETE GENTRIFICATION STRUCTURE**  
The structure of the seasonal workers hotel is permanent, offering different type of rooms and communal spaces.



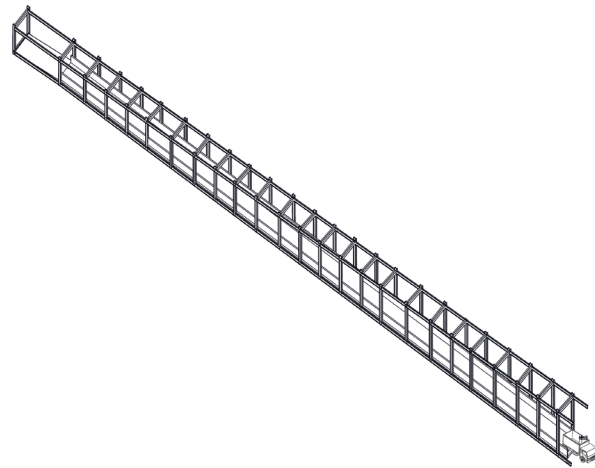
**1 COMMUNAL HYBRID STRUCTURE STRIPS**  
The structure and grids are the same in the communal strips, which gives the option to the strips to be privatized or changed in the future



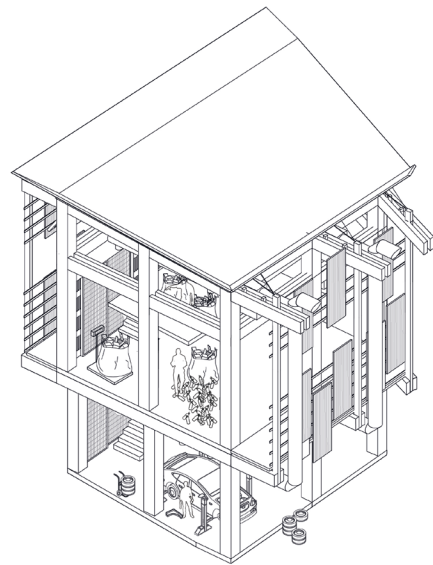
**1 THE HYBRID WORKSHOP STRUCTURE**  
The completed structure being occupied by the informal world



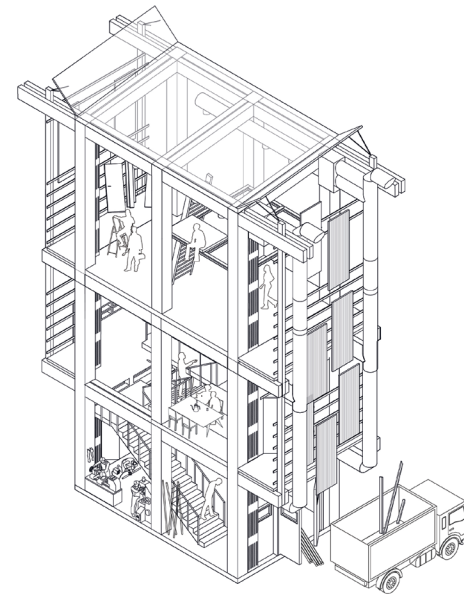
**1 PLACE OF COMMUNITY LIFE SEASONAL WORKERS HOTEL**  
This CLT hybrid structure on top of the seasonal workers hotel functions as a flexible space that can be changed due its activities. There are also platforms that can be transformed in for example a gardening platform.



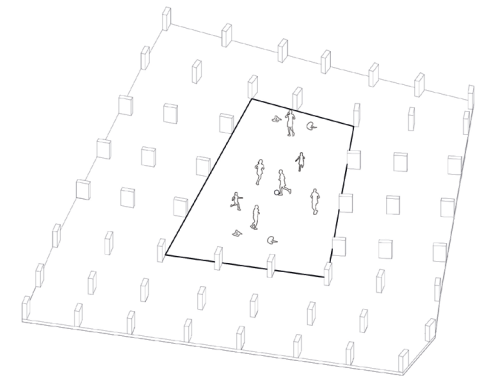
**2 THE LOGISTICAL VIERENDEELLIGGER**  
This steel vierendeelligger construction functions as an important internal routing system. Therefore it is permanent, also if for example small trucks will be displaced by more sustainable transport.



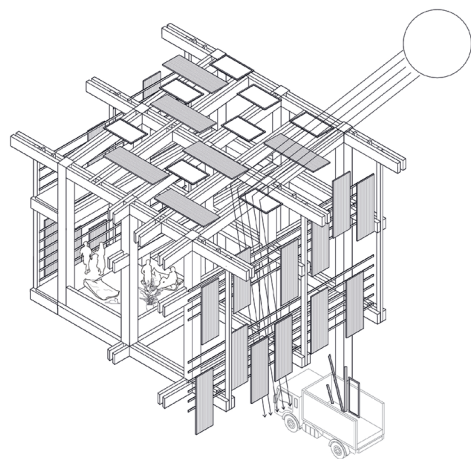
**2 SEASONAL WORKERSHOTEL ROOM**  
The sliding doors make it possible to change a small family room into a large family room (two rooms configurated into one) or to change it to one big hostel room (three rooms configurated into one big room).



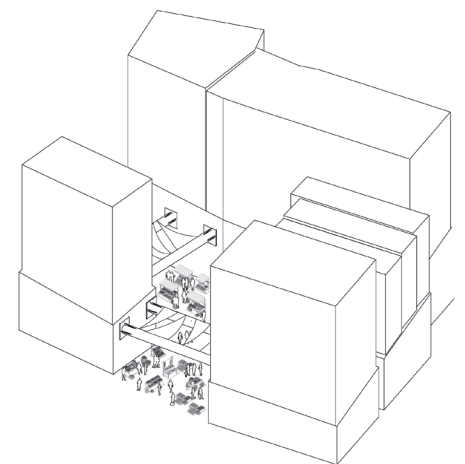
**2 PERMANENT WORKERS HOUSE**  
Half of this house is finished, with functions such as sanitary and kitchen facilities integrated. The unfinished part is also using the CLT hybrid structure and can be built by the occupier itself in the future.



**2 PLACE OF COMMUNITY LIFE SEASONAL WORKERS HOTEL**  
The square in the middle of the seasonal workers hotel functions as a meeting point. The courtyard can be transformed into all kinds of functions, such as a playground, sportfield, space for parties, etc.



**3 COMMUNAL PLATFORMS WITH OPEN STRUCTURE**  
This CLT structure is open with communal platforms inside. The open structure allows sunlight to enter the construction pit and offers communal platforms. The structure functions permanently like this



**3 MARKET SQUARE**  
The market square is an open central spot between the strips of the building, which functions as an trading spot. Different type of markets can take place here.

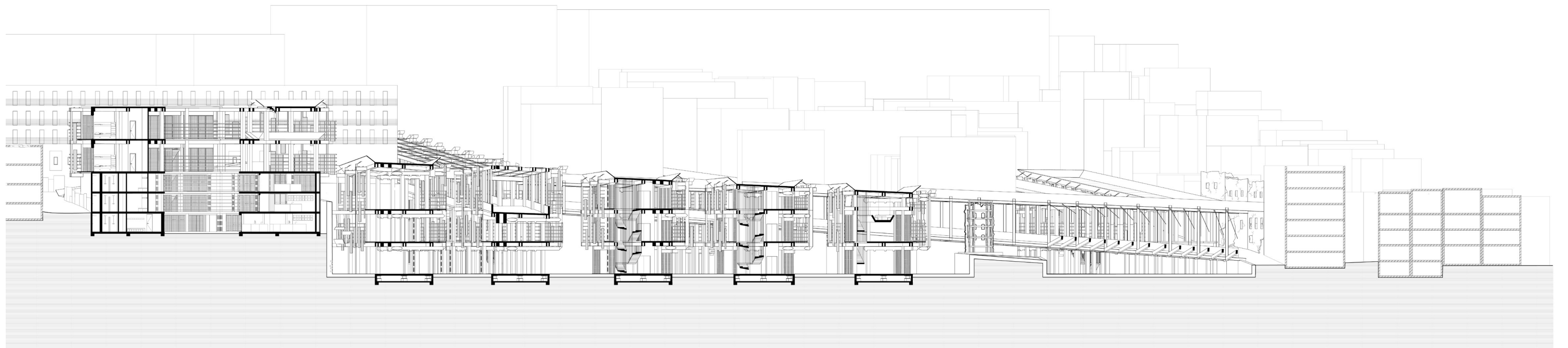


### **3.8 Completion - Occupation - Resilience**

The lost art of productively losing control:

*We (architects) need to stitch back creation and execution and start offering processes again, instead of offering objects.*

(Joshua Prince-Ramus)



COMPLETION  
SECTION - AA  
scale 1:200

Section AA - Completion





*INDEX*

1. Do You Dare Route
2. gentrified block
3. seasonal worker hotel

4. anonymous food wall
5. high ceiling informal module
6. two floors informal module

7. logistical ramp
8. small informal module
9. informal module with storage level

10. crane added informal structure
11. communal workshop spaces
12. communal workshopspaces

13. tea house
14. historical preserved facade
15. logistical square

16. waste picking & recycling roof
17. vierendeelliger with logistical axis
18. start Do You Dare Route (house of disruption)

19. place of community life
20. communal kitchen
21. communal bathroom

22. long stay seasonal workershotel room
23. gardening platform
24. observation point

*OCCUPATION*

*SECTION - AA*  
scale 1:200

Section AA - Occupation



COMPLETION  
SECTION - BB  
scale 1:200

Section BB - Completion



# INDEX

1. energy roof  
2. logistical ramp  
3. Do You Dare Route

4. internal logistical ramp  
5. two storey workshop space  
6. added storage level

7. small workshop module  
8. toilet module  
9. staircase

10. removed floor and column module  
11. 3 storey workshop  
12. logistical passage

13. horizontal expanded module  
14. high ceiling module  
15. existing construction pit beam

16. main logistical axis  
17. elevator  
18. dynamic seismic isolation system

# OCCUPATION

SECTION - BB  
scale 1:200

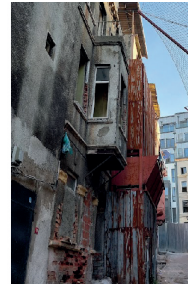
## Section BB - Occupation





open up structure & workspaces

*steel sliding doors with glass*



light & climate active  
act or resilience

*corrugated steel sheets, re-assembled  
from evicted houses*



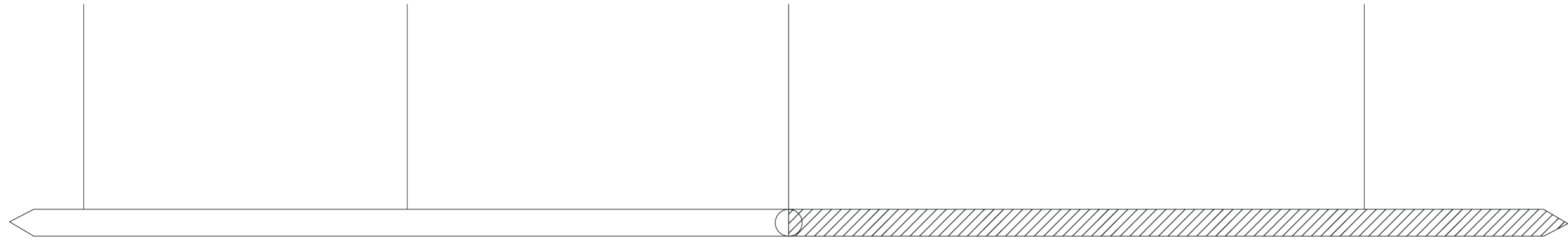
lightweight structure

*CLT*



process of waste picing & occupying  
the hybrid structure

*Re-used building materials &  
elements*



***COMMUNAL FACADE***

role of the architect

***SKIN***

role of the architect

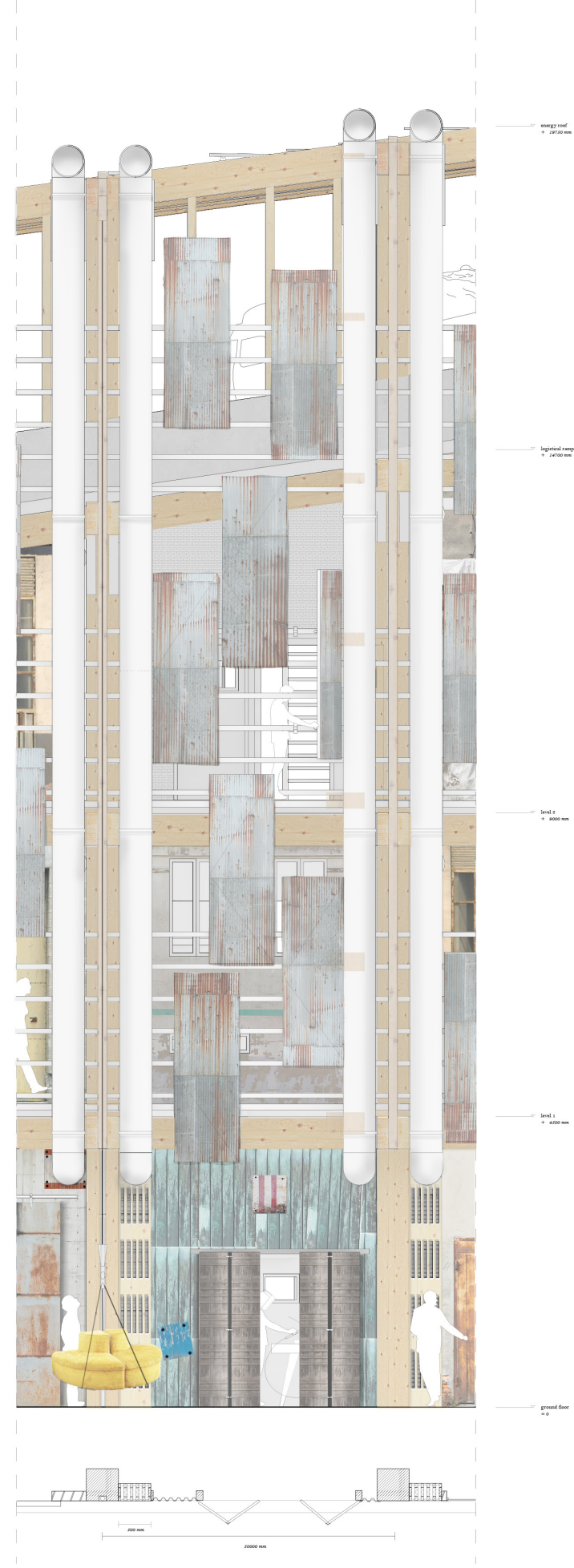
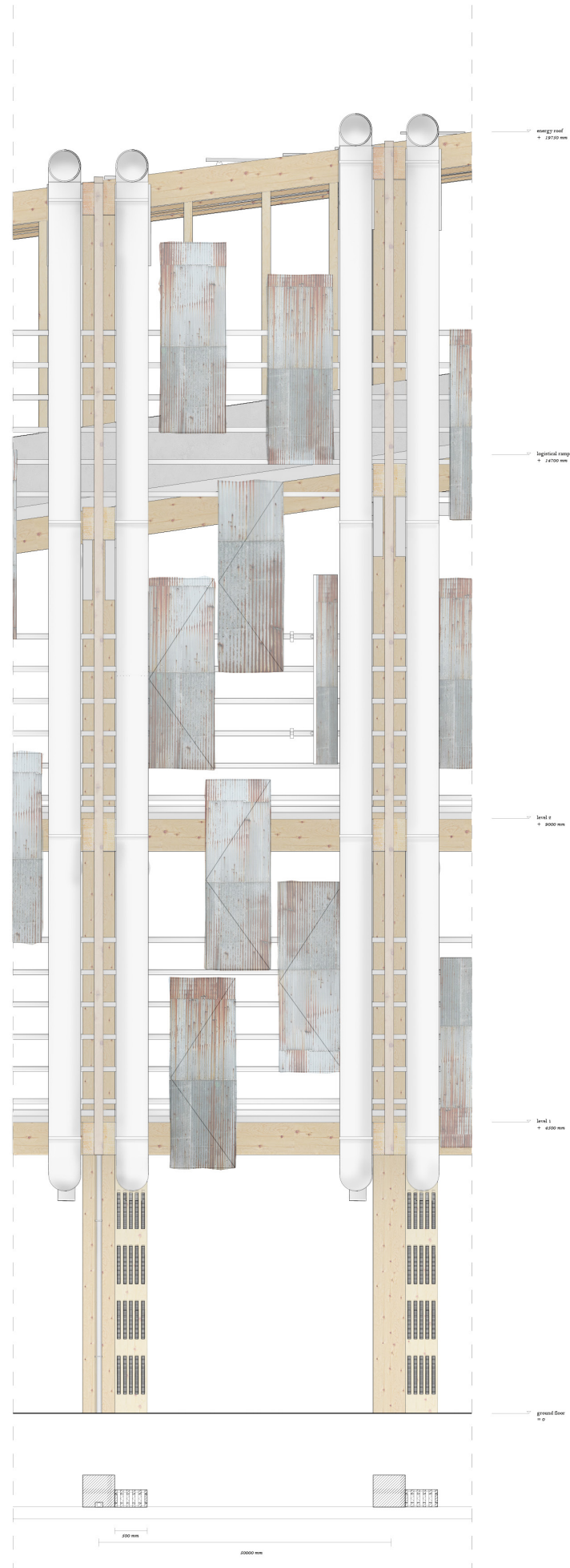
***STRUCTURE***

hybrid structure

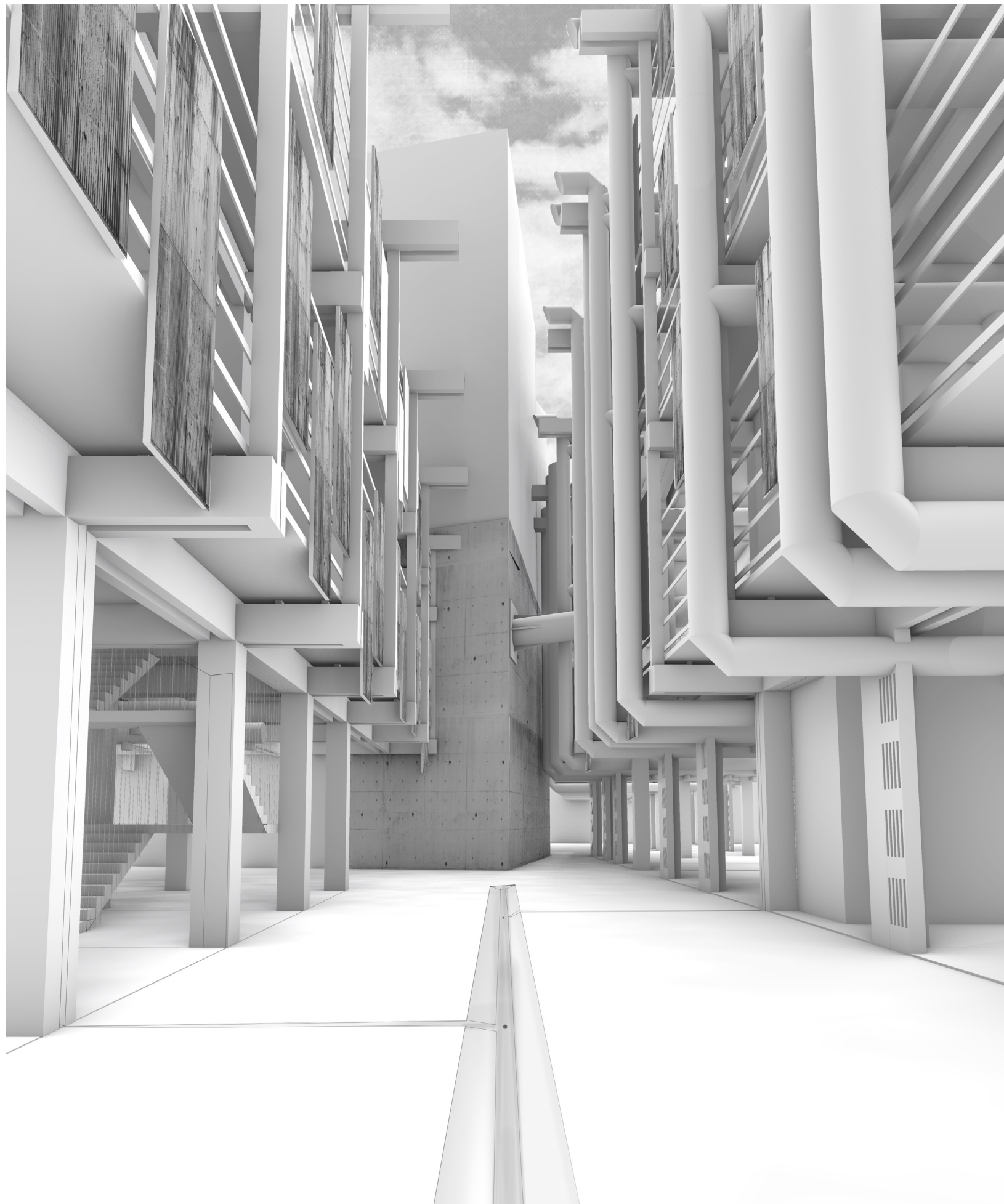
***FILL INS***

self regulation of informality

Material strategy



1:20 fragment - Completion & Occupation

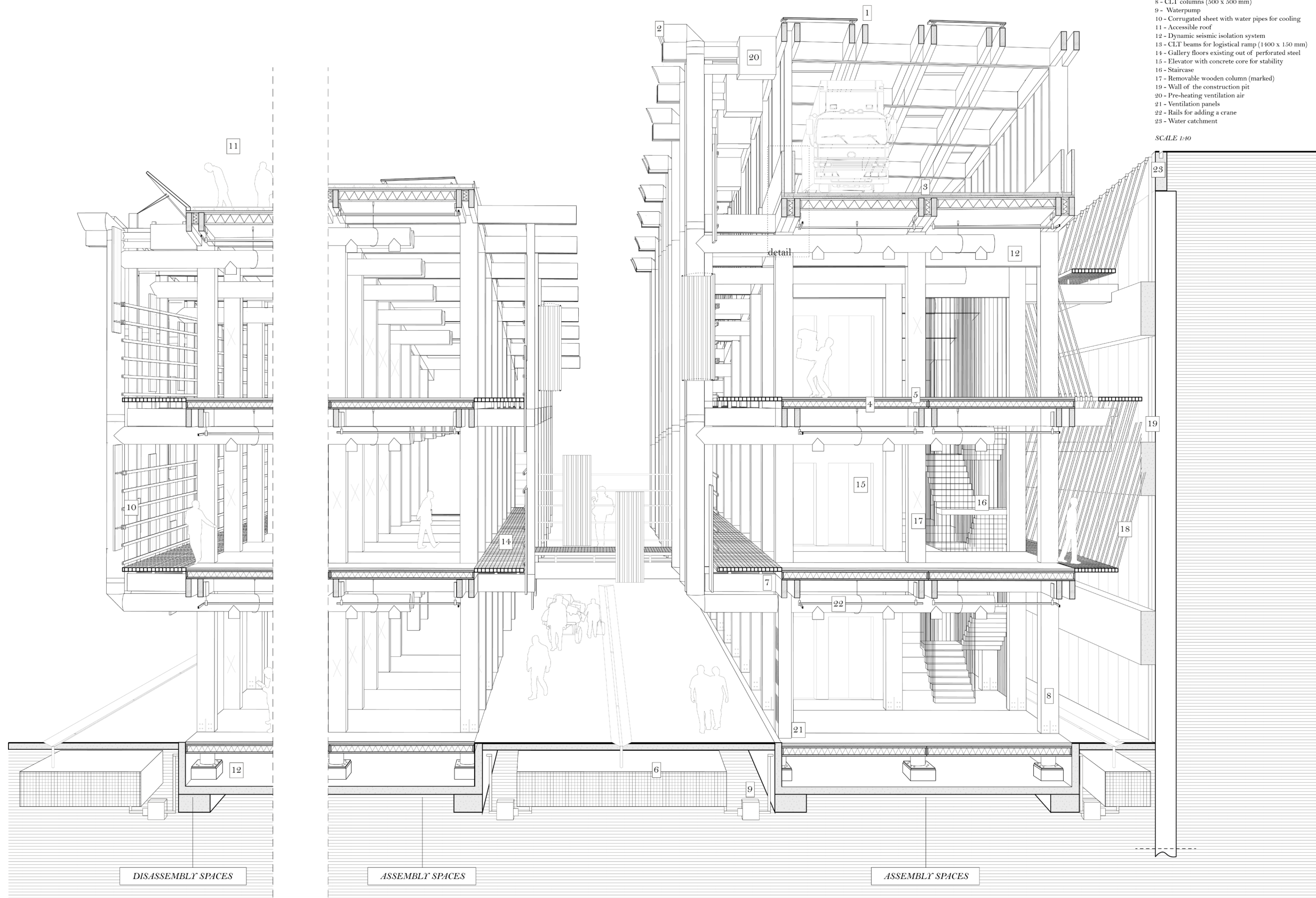


Completion



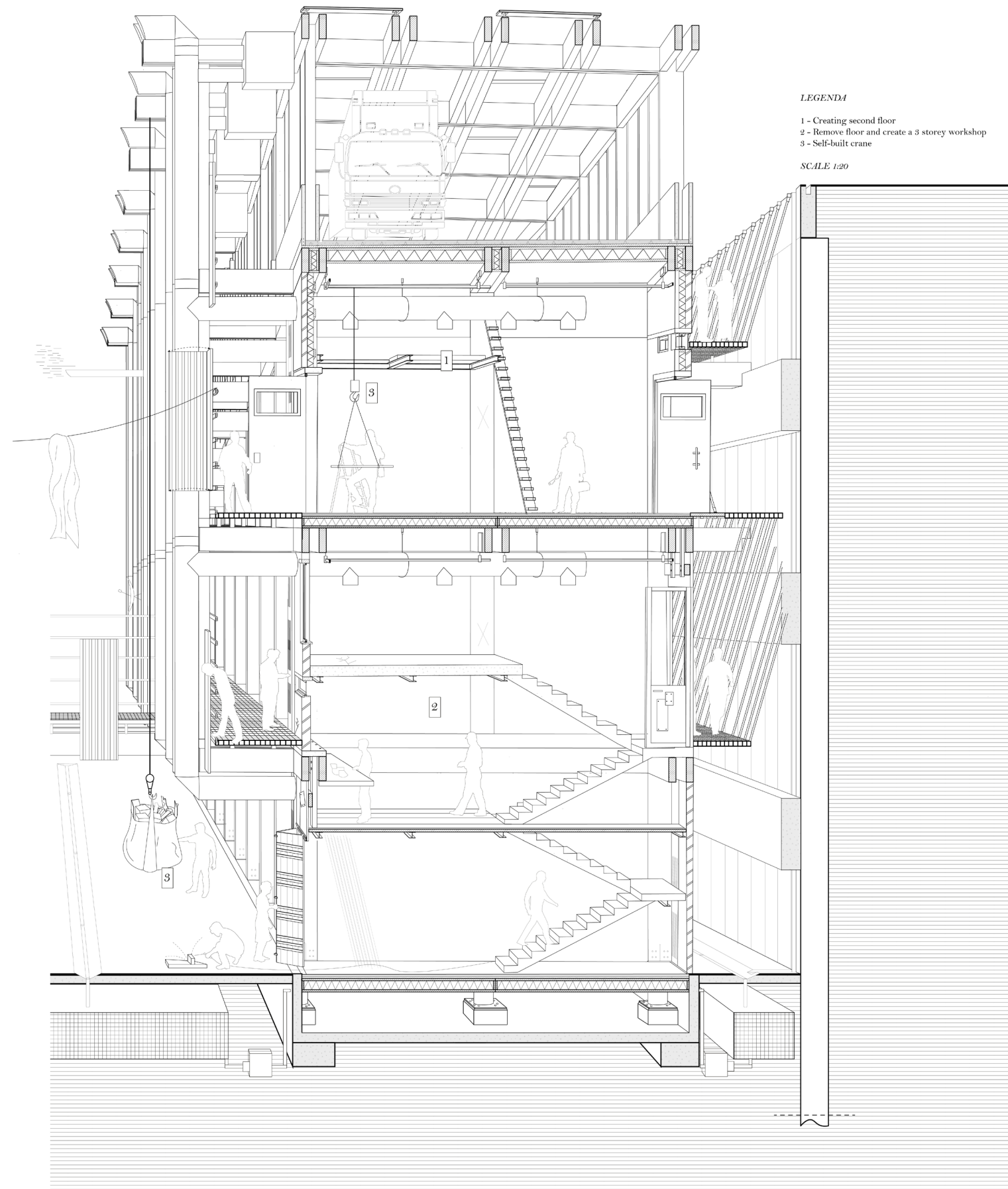


Occupation



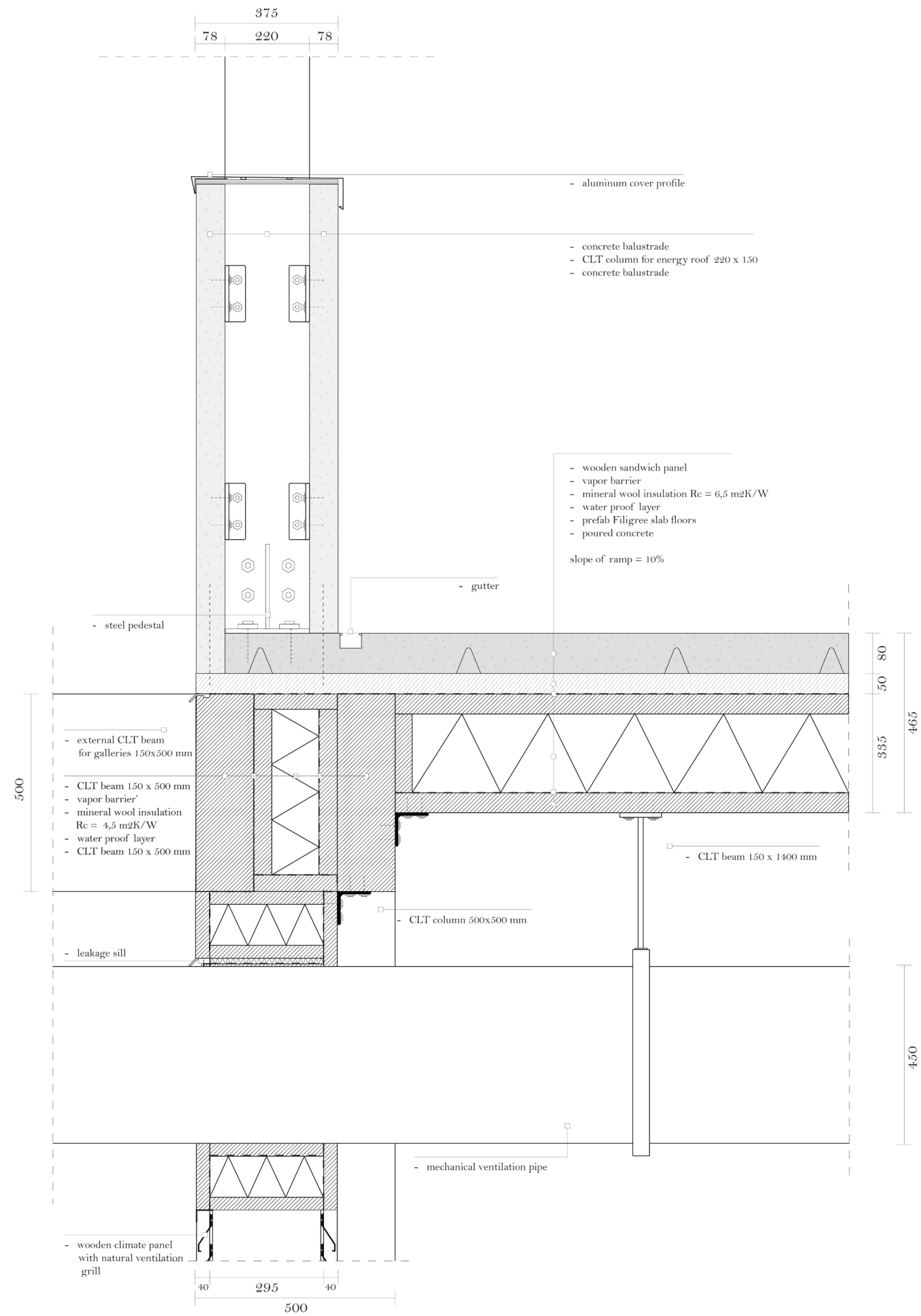
1:20 detail - Completion



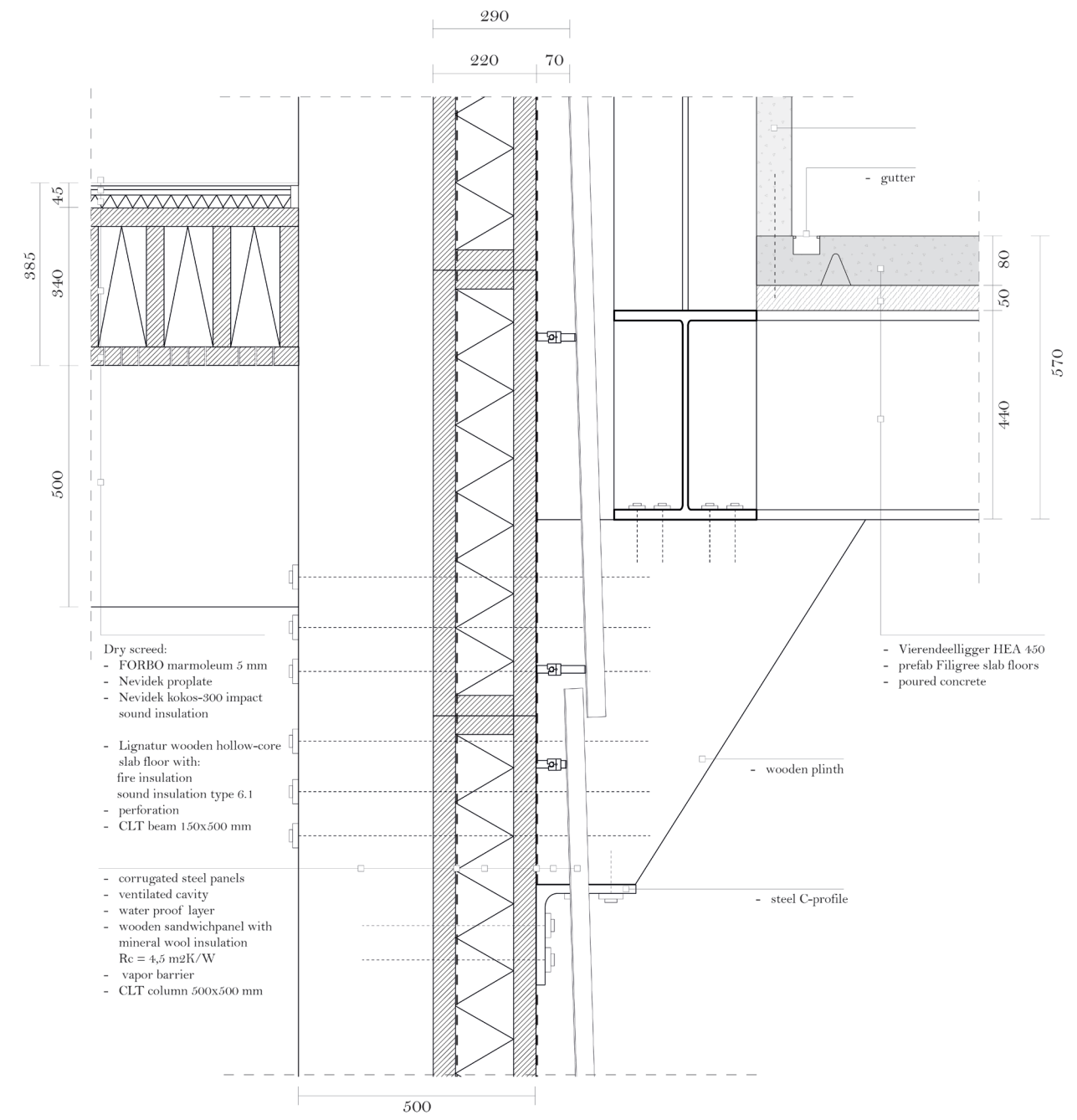


1:20 detail - Occupation





1:5 details - logistical ramp



1:5 details - connection logistical ramp vierendeelliger with strips







You cannot stop gentrification, but at least you can say: look what you are losing.  
All we can do is to give an image to an idea.

(Christopher Doyle)



Tarlabasi 1957

Thank you