

# COLLECTIVE FOR LIFE

*A SOCIO-  
ECONOMIC  
EXPLORATION  
OF FLEXIBLE  
COLLECTIVE  
HOUSING*

*bachelor booklet by*

*mikkel frisbæk, unit 2/3C*



*japanese bicycle community <fuji>*

*Semester booklet "Commune for life"*

*Unit 2/3C, AAA*

*Spring 2020*

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*125x250mm*

## *introduction*

*The task of this semester is to build co-housing units in Aarhus "latinerkvarteret" inspired by the subtle porosity, found in Japanese architecture. The project seeks to explore the urban courtyard as the place for condensing city dwelling – in a response to the growing population demand for housing in the city's midst.*

*The project is predominantly an attempt to explore and rethink socio-economic ways of living multiple user groups under one roof. By seeing the private and public, not as clear divisions, but rather as layered constellations of functions and social dynamics.*

*It might be possible to extend the sensation of "home" to the collective affiliation of common space, by inducing atmospheric knowledge, thin transitions and meticulously planned spaces. The Japanese building culture is here inspected, in search of deeper levels of complexity.*

*Domus Collective*

## CHALLENGES AND INTENTIONS

*This project tries to answer questions such as, how the building connects with the former infrastructure of the courtyard? How we alter our environments to support a new social fabric of shared economy? How can the pores Japanese building style be transferred to the Danish climate? And in doing so, how can the aesthetical and constructive appearance of the lightweight building be justified, in a context of masonry buildings?*

*When creating co-housing in an urban context, what should be the new “shared” – ideology, culture, exercise and/or production? And finally, how can the users of the space be provoked to consume less space for private and more for shared activities?*

*The overall philosophy of the “condensation” can applicably be described with the following:*

*Condensing the courtyards > more people in a collective environment/housing > more economical diversity > more diverse people in the courtyards > de-privatization of the courtyards > diversification of the city centre > the weaving of a dense qualitative city.*





*former courtyard of the site*



*arial perspective from the south*

## *context and mapping*

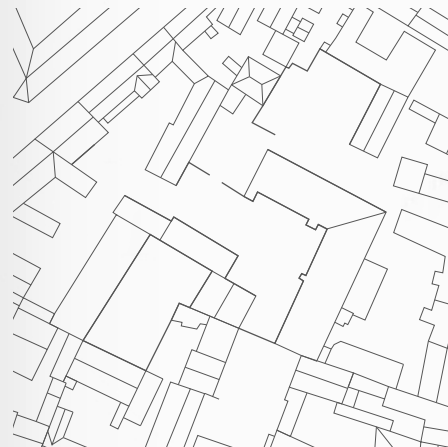
*Situated in the central “latinerkvarteret” the 3 building sites bare many historic traces of the courtyard’s former uses. There is a notable difference between the polished, street orientated side of the city blocks – where sales and formal activities took place, and the opposite courtside where production and recreation unfolded. Unlike the adjacent “Kaløgadekvarteret” where the courtyards are kept neat and clean – our site is more fragmented, messy and unplanned.*



*Facade elevations from site 1 (right), site 2 (middle), site 3 (left)*

## SITE ELEVATIONS

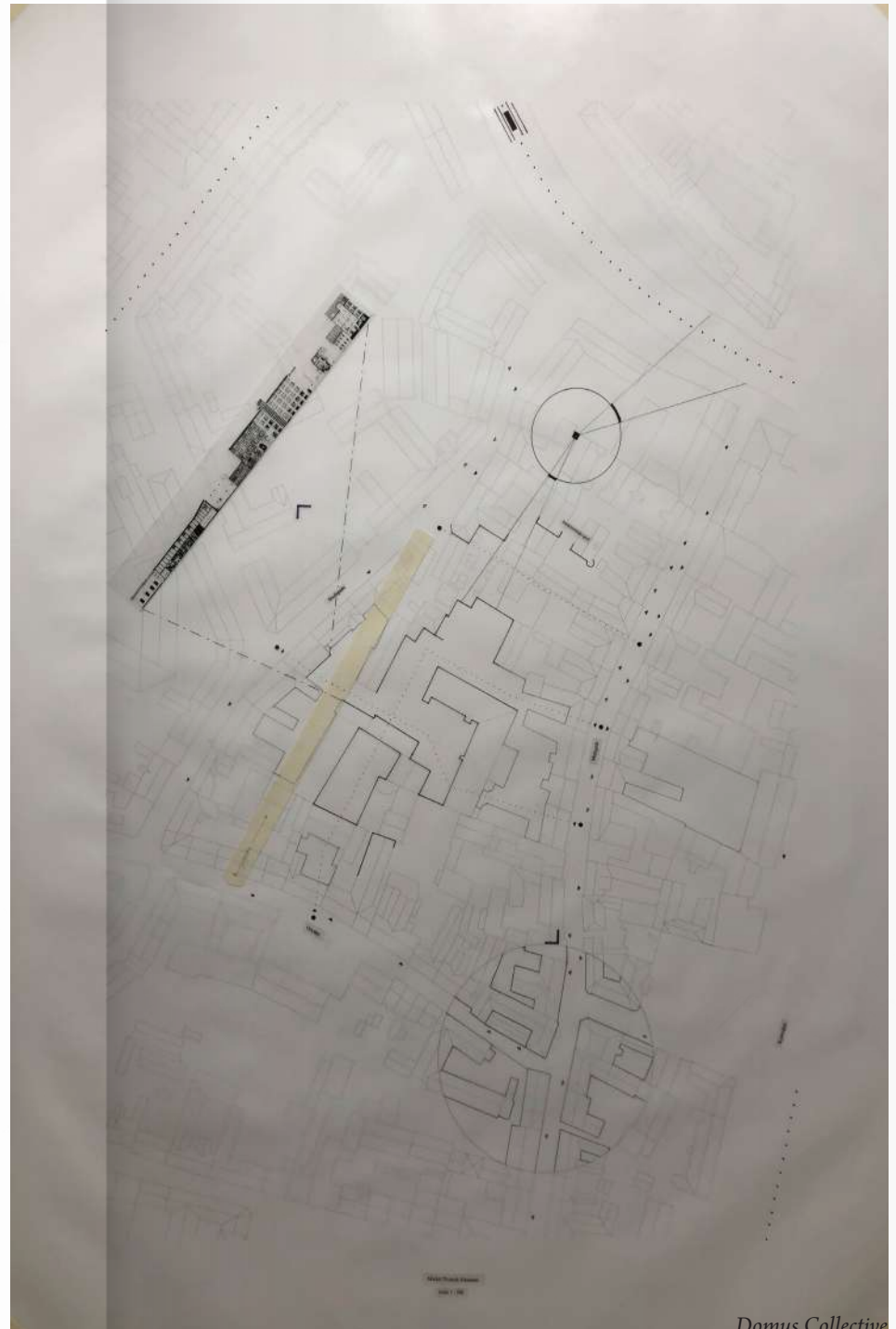
*When unrolling the facades in elevation view, we see strong contrasts in height, materiality and deterioration more clearly.*



*Facades in plan view, 1:1000*

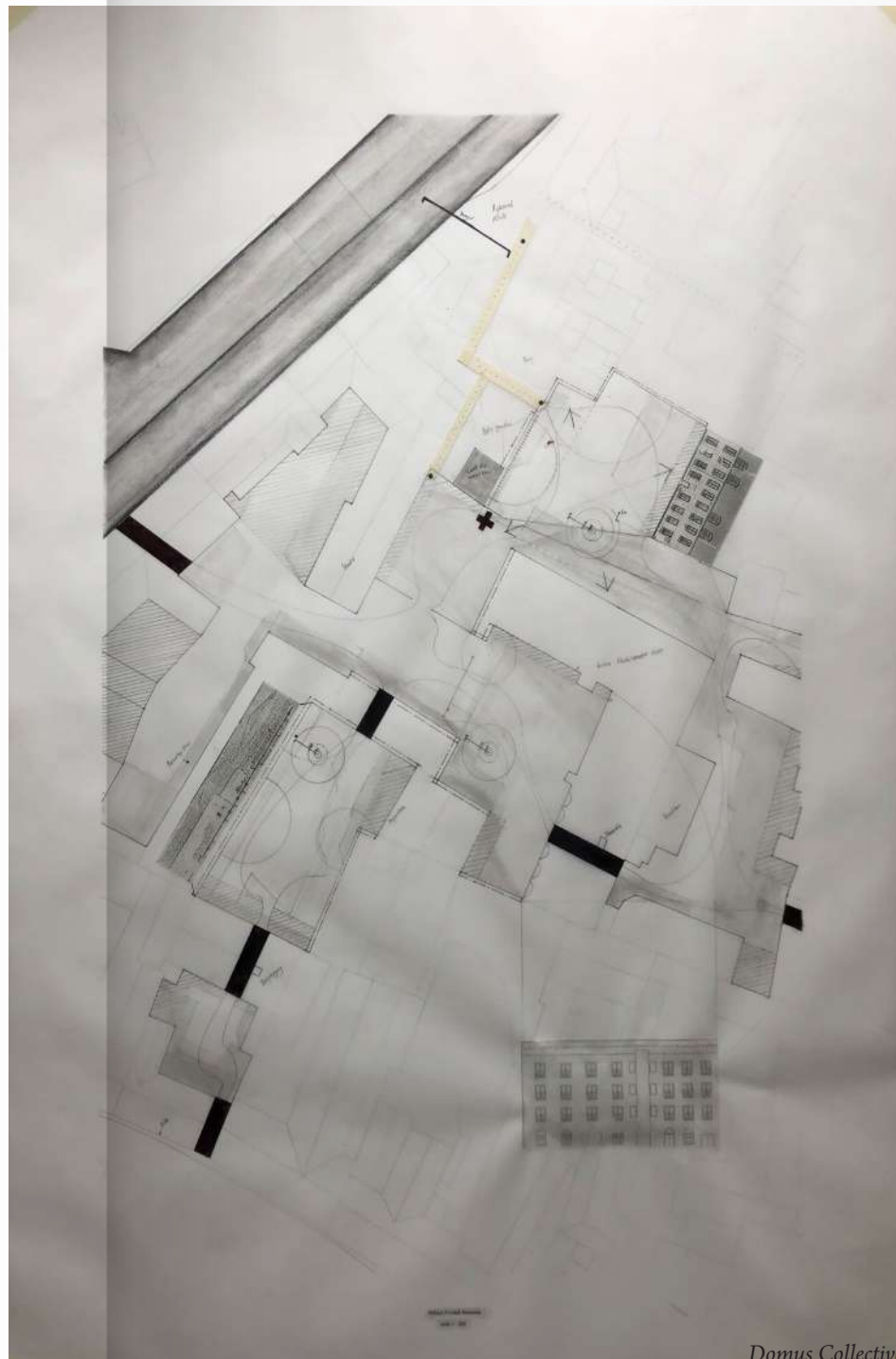
## CONTEXT MAPPING &lt;1:500&gt;

*Historic traces, local landmarks, pathways, public transport, characteristics between street and backyard, open/closed entries and gates, visible facades from the sites, 1:200 mapping marks.*



## CONTEXT MAPPING &lt;1:200&gt;

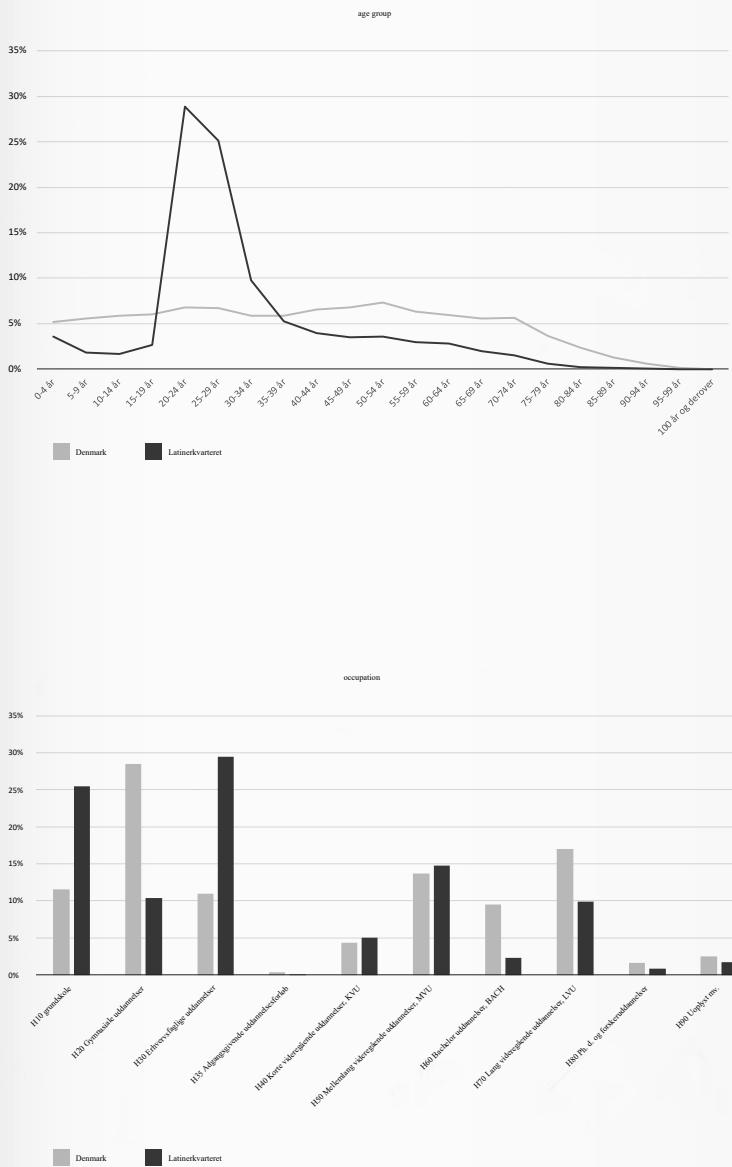
*Exposure/enclosure, digestible distances, connectable walls, historic traces, possible new paths, lines of traffic, hereness-thereness, occupied territory, tags, façade elevations.*



STATISTIC MAPPING

To expand the contextual knowledge the Danish national statistics provides an alternative perspective on the local fabric. Here we find that a general trend of more and longer well-educated people. On the contrary we find that there is only a third of the average amount of vocationally educated people. There is a large amount of the residences that are aged between 20 and 35. But not any significance difference in the ethnic composition compared to the national average.

context and mapping



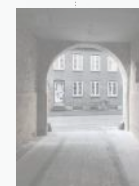
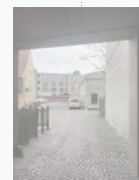
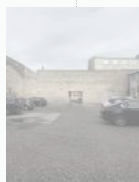
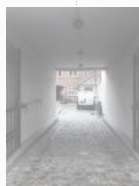


## SERIAL VISION

*Moving through the site, the rhythm and distances are constantly defined by the through holes in the building volumes.*



*Photographs in plan view, 1:1000*

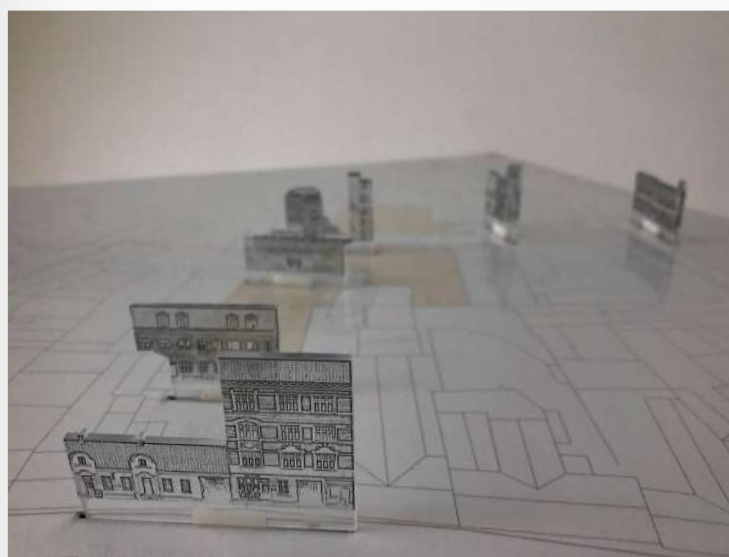
*context and mapping*

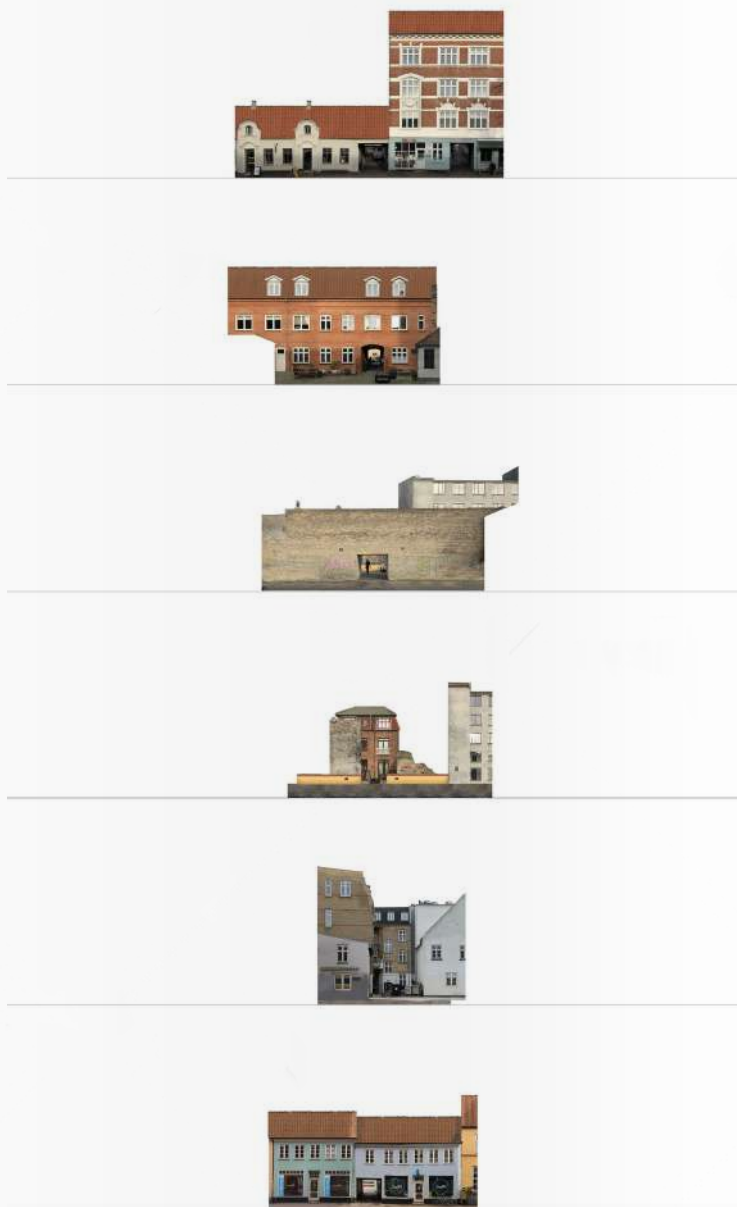


# SERIAL VISION MODEL

*Survey of a passageway through the site.*

*Original size 70x50cm, MDF, acrylic, paper, tape.*





## ATHMOSPHERIC ANALYSIS

When characterising the atmospheric context of “latinerkvarteret” we can look at Gernot Bohme’s concept and ideas for seeing the “atmosphere as an aesthetic concept”.<sup>1</sup> Here the atmosphere is described as meteorology. As a sensuous emission from the site, including sound, light, heat, smell, moisture, constellations and people. Pallasmaa described it, as a place which is always experienced through a filter of multi-sensory memories.<sup>2</sup> 7 to be exact. We notice these things when reflecting on the visit of the site.

When approaching the site, we experience the feeling of entering something new. A portal to another place, where the street’s sounds – previously so present, gets muffled as they hit the bare brick walls of the passageway. A calm sensation of an enclosed space separated from the previous sea breeze. The eardrums start relaxing and we now realize that this is not a tranquil space. A deep barely hearable rumbling from an A/C-unit sets the backdrop and occasionally seagulls “squeak” high in the skies. The passageways connect us to the streets whenever slow-moving cars pass by – **“we may not see it, but our ears carve out the shape of the corridors in our subconscious”**. On sunny mornings the sounds are mixed with small “chirping” birds in the leafy tree in the northern part of the site.

The oasis lies hidden behind steep facades. Before we could only perceive the building fa-

1 Atmosphere as an aesthetic concept, Gernot Bohme, Article.  
2 An architecture of the seven senses, Juhani Pallasmaa, page 40-49



*cedes at close distance, but now we see them from afar and realized that in this place, they have switched their compositions – Where the city streets are open to the public on the lower levels, we now have enclosed, blank and bare walls to face. The upper floors however were anonyms, strict and cold towards the public. But now here in the courtyard the bedrooms, living rooms and small balconies display the inhabited life for us. The only visible indicator, that we are not in a different world, is the tall old chimney visible from the centre of the site.*

*Contrary to the groomed streets outside, we here find an uneven surface which is punctured, fractured and coarse after many years of heavy usage. This heavy usage is still present today, in the morning and afternoons when workers and residences drive their car into the courtyard causing the dusty ground to merge with the air. Although on most days, the ground is miraculously always moist, even when the walls are dry – cured and settled long ago. It is the corroded metal pins, spikes and bolts along with the diminishing coloured wall paint – that gives us this idea that the place is old and eroding.*

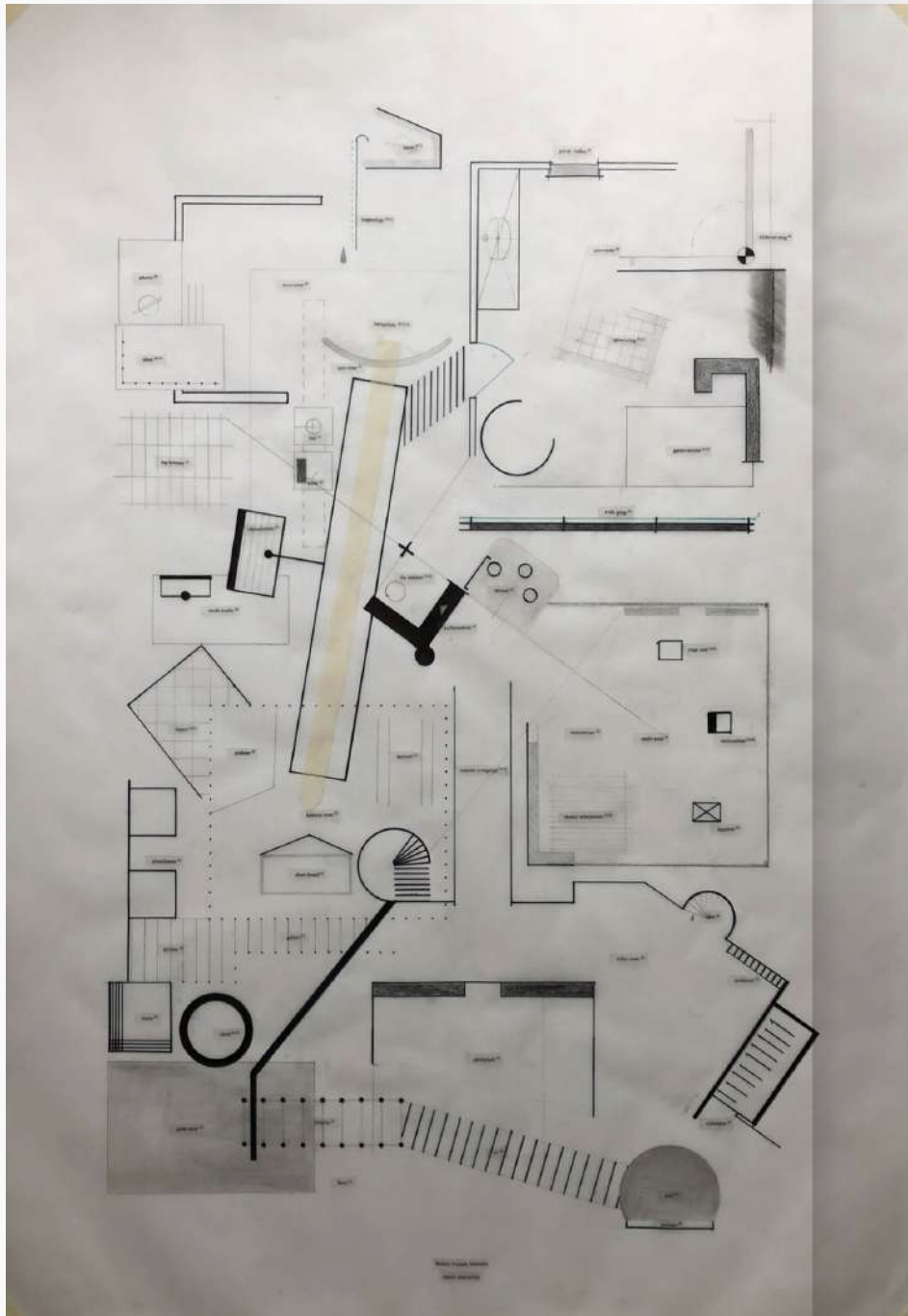
*Mossy planks and the footprints of where crawling vines that once covered the walls, has dried out in a summer drought and crippled away – leaving only its vignette on the hard surfaces. A tough place, where only the toughest survive, plants, as well as humans. The locally rooted in-*

*habitants, that resides in the prohibited zones, exists here in an everyday struggle against the hard surfaces. We see this whenever people in the know, pass us by. **They still look down on their feet when passing through the site.** Although they live here, I still don't think they know where "here" is. I overheard a discussion by two locals; they were arguing which way "Mejlgade" and the city centre was. This disorientation may happen because of the journey we took to get to here. First, the isolated noisy passageway blocking our hearing, the contrast between light and darkness when passing through the tunnel, then the absence of sea breeze on the skin, followed by a rapid obstruction in the visual continuum whenever we look down to avoid obstacles. And when we do look up again, the scenery of small courtyards and housing geometries has taken new form and we are disorientated in a new constellation – we have arrived at the new place!*

*A place characterized by expressive geometric surfaces, jagged rows of rooftiles and steep fences. There are many impenetrable walls to the courtyard, all sheltering off an unseen privatized space – lingering right there beyond, waiting to be explored. There are no penetrable divisions here. Although enclosed by habitation, we still receive sunlight scattering through a sea of clouds, produced by the sea – occasionally strong beams of light penetrate for a brief moment and it makes you long for a sunset horizon.*



## *generating forms*



*An abstraction on the phenomenological and spacious transitions between inhabited space. When rethinking co-housing the focus should be to define the collective amenities and how they interact. In an attempt, to cartograph levels of privacy sharing a scale from 0 (intimacy) to 4 (public) is introduced. The scale reveals functions that are multi-faceted and should be defined in co-housing.*



Site 1

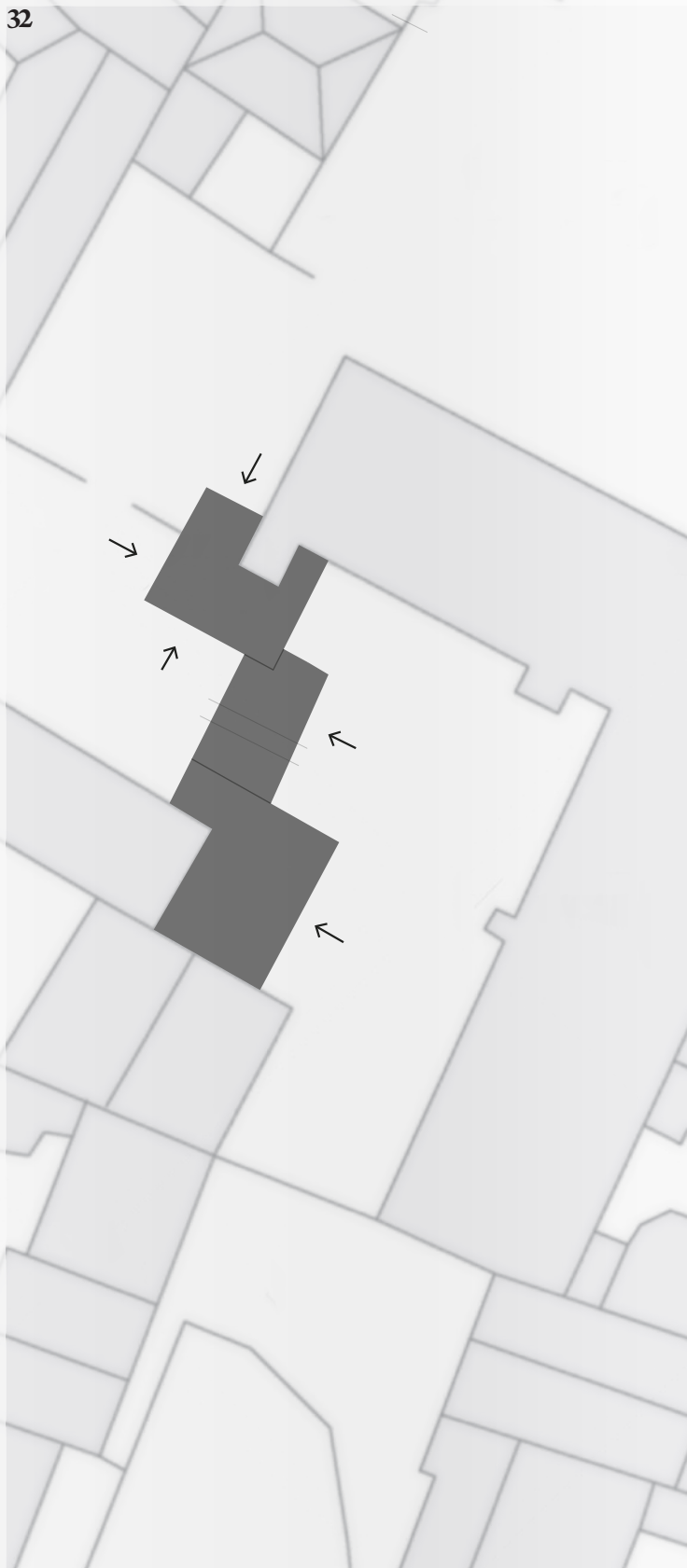


Site 2

## SKETCH MODELS

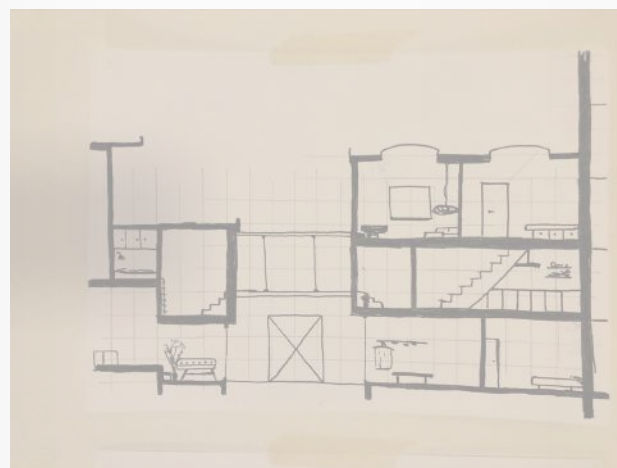


Site 3

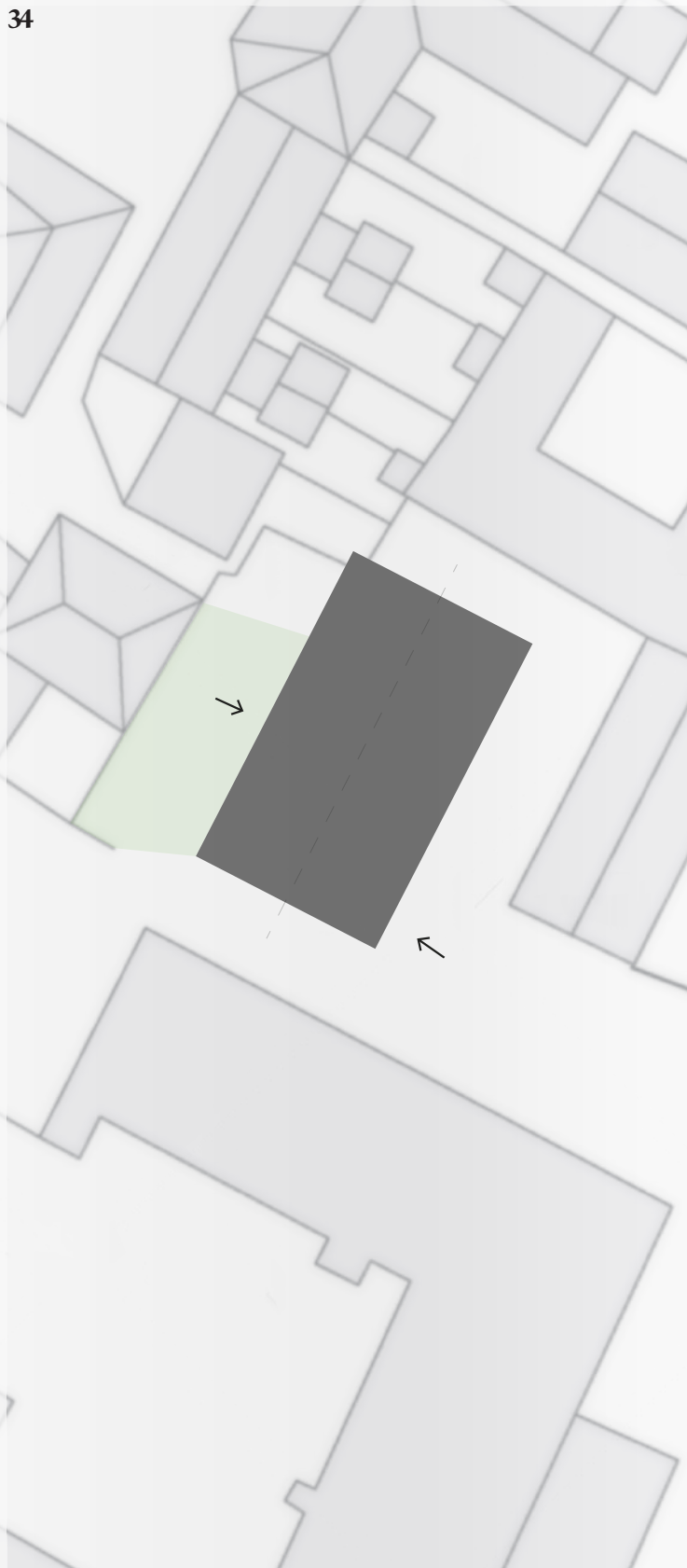


## FIRST PROPOSAL

*In this proposal we are situated on the second site, and the idea is to make a building that separates the elongated courtyard into 2 more typically sized spaces. This is done by attaching to the existing building on the north/south walls that are without punctuations already (windows/doors). The building becomes 2 enclaves – one addressing the courtyard towards the “VIA building” and the other become a significant presence in the courtyard with the local cross-passage. One introvert, one extrovert building. In the middle of the build there is carved a new passage, connecting the two and re-establishing the passage.*

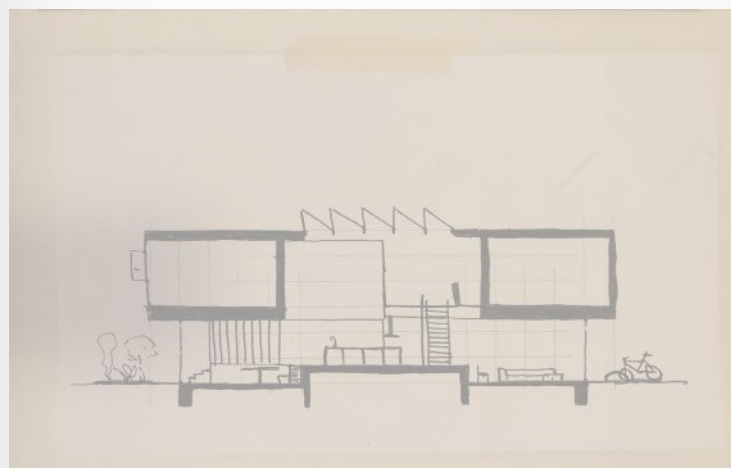


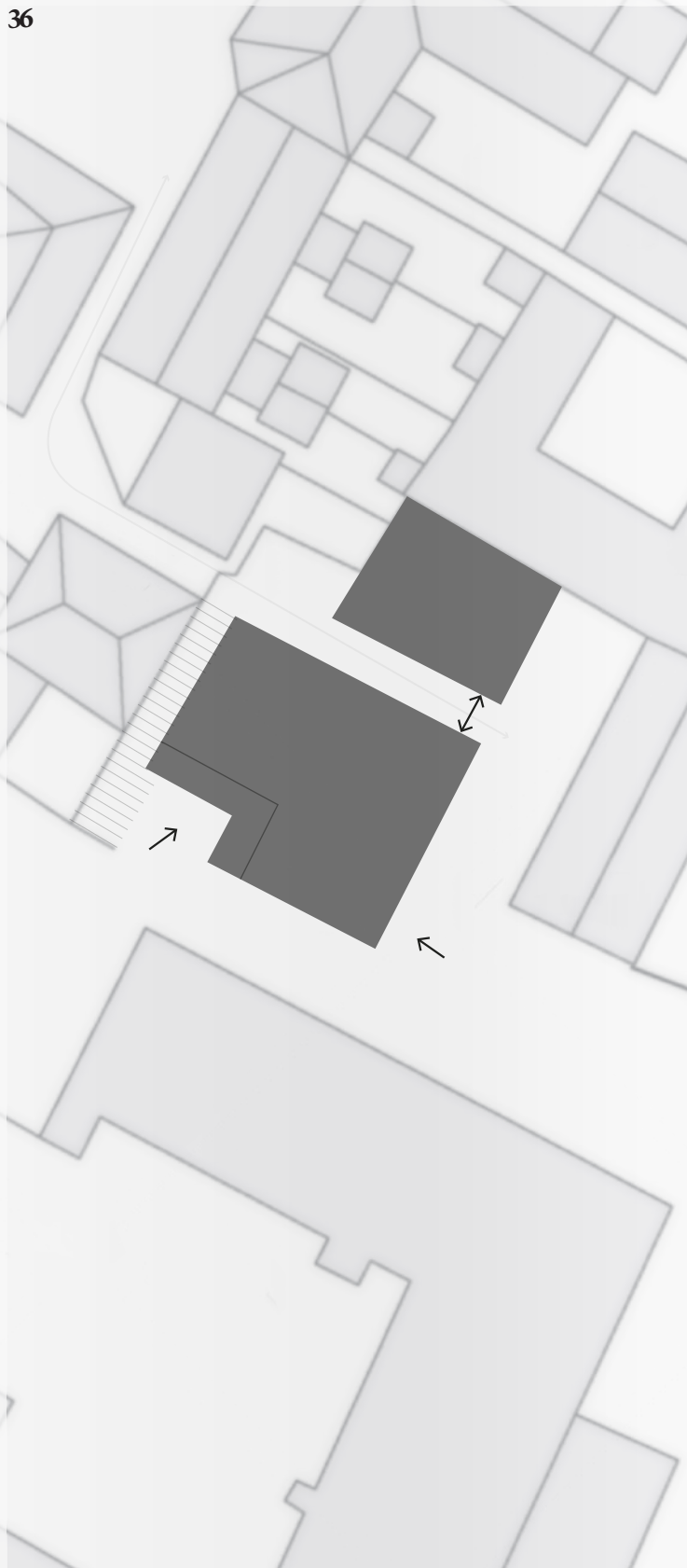




## SECOND PROPOSAL

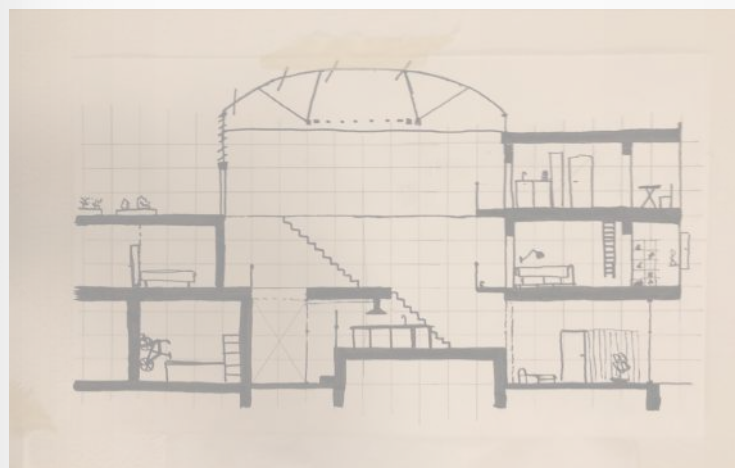
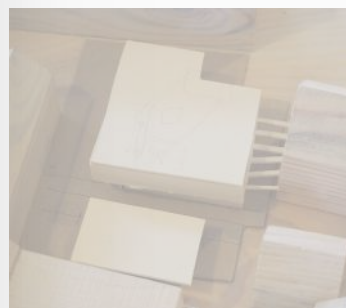
*Second proposal is an axonometric building places in the middle of site 3, defining new alleyways around it and condensing the courtyard to a digestible elongated size. The building pushes forward, squeezing the existing walkway and creates a breakpoint on the long stretch along the “VIA building”. The placement of the building makes the place becomes more privatized on the north/eastern side. The west side is also in risk of becoming privatized – but could be saved by opening the wall and allowing for a new passage from the site to “Rykind plads”.*

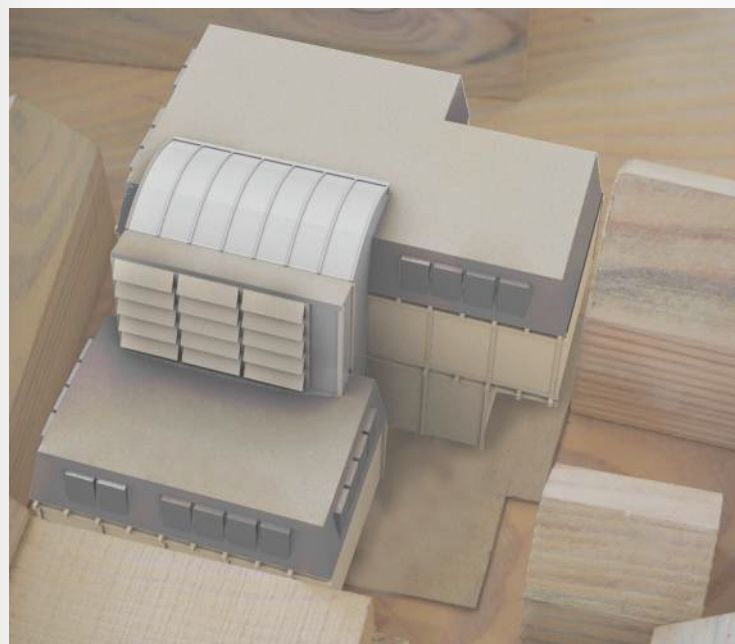
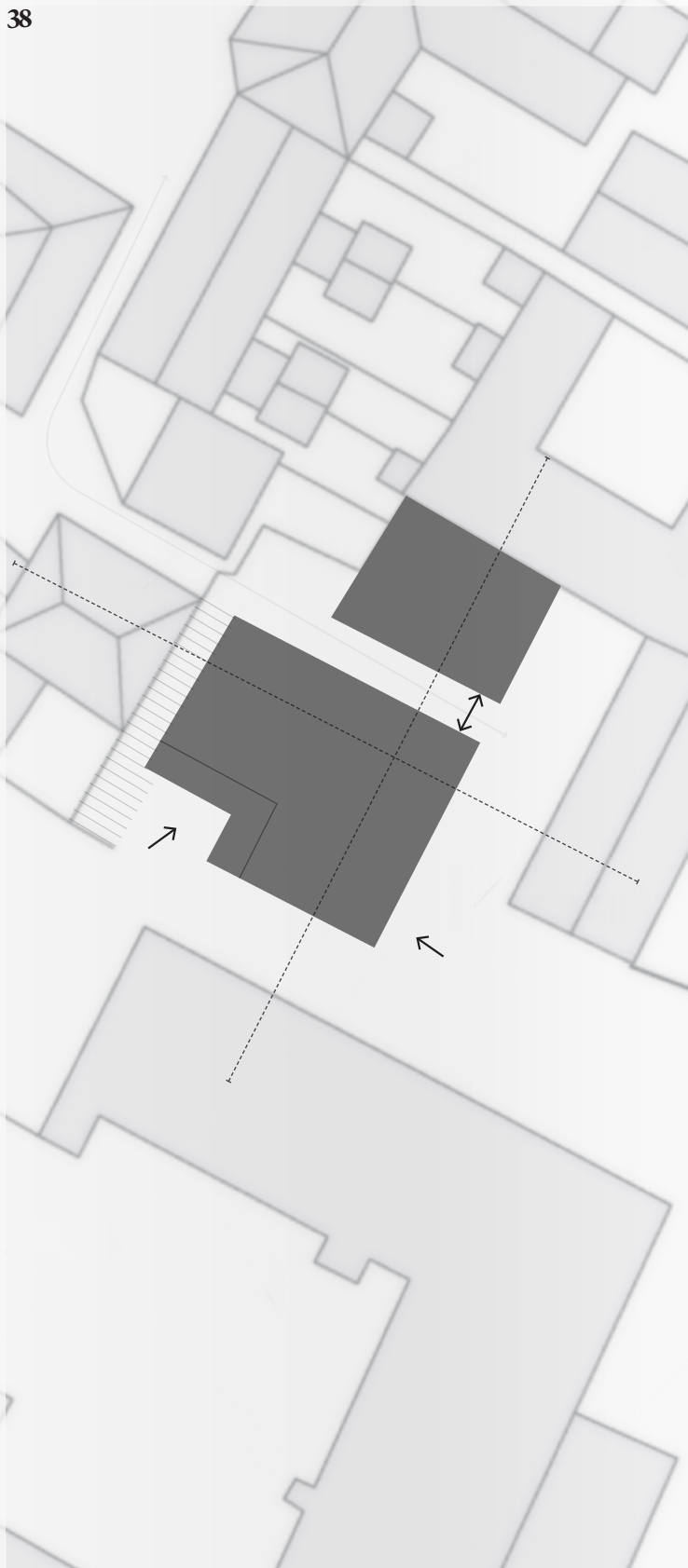




## THIRD PROPOSAL

*Third proposal is somewhat like the second. But here the courtyard is even more limited, and the main passage is circumvented through the building volumes. The passage to the west is still intact, but its privacy has changed. The building volumes defines multiple interior and exterior spaces and creates more relations between inside and outside and giving the opportunity for the building to become more pores. The building also connects more with the court wall but only where there are no functions already.*







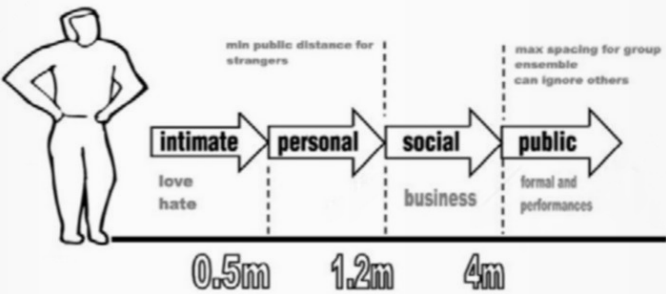
*case studies and references*

*The following is a series of case studies, experiments, and written reflections.*

*To expand the knowledge of housing; co-housing, Japanese porosity, interior organization, construction, adaptability is examined.*

*Providing inspiration on how to develop the 'schemas' for materialising the 'phantom' of the project.*

Bryan Lawson, The Language of Space, 2001



# 'HOME IN SPACE-TIME CONTINUUM' - ESSAY

*Humans are a territorial creature and "a safe territory is essential for the survival of the human species." At least that is how Edward Hall defined it in his "The Hidden Dimension", 1966.<sup>1</sup> Here he depicts our territorial nature, as protection against danger, of feeding, breeding and upbringing - as well as the protected space to evolve, communicate and evaluate. A known territory is needed in order to evaluate the world around us, and this was defined even earlier by Martin Heidegger in 1952. In his text, *Bauen, Wohnen, Denken*:<sup>2</sup> he points to the world as the concentric circle around our home, our bodies as this home. And it is from this central existing standpoint, that we face the world – therefore it is the midst of our existence. The home is the incubator in the creation of humanity.*

*We need our home to be human, but not necessarily the same home. Primarily we need our territories to relate to our sensory systems in order to assess stimuli, identity and security. It is in these assessments, that we evaluate spatial relations to others. Relations such as public, social, private and intimate distances - as Bryan Lawson defines it in his book: *The Language of Space*, 2001.<sup>3</sup> This empiric knowledge is kept and stored in our conscious and sub-conscious.*

<sup>1</sup> Edward Hall, *The Hidden Dimension*, 1966  
<sup>2</sup> Martin Heidegger, *Bauen, Wohnen, Denken*, 1952

*It becomes the concentric circle, from which we see the world. "The home needs to be a coherent familiarity of sound, touch and dimensions (all senses) for us to dwell and contemplate." Cause when we are away from home, our senses are on high alert in these new territories.*

*But this sensation of home is not generated instantaneously, in fact home can be seen, as the result of a gradual process where "housing" is attributed value and meaning.*

*"A home cannot be produced at once; it has its time dimension and continuum, and it is a gradual product of the dweller's adaption to the world" [Pallasmaa, 1995].*

*As Pallasmaa so brilliantly describes it, we as humans need to undergo a subjective intimate relation to the space in order to feel comfortable in it. And by selectively altering the space, it in turn becomes an extension of our reflected personality. But it takes time, and we as architects can't instantaneously fabricate "home". But (perhaps/ I do believe) we can create a territorial "framework", a housing with inherent qualities that makes us feel at home more easily in a new territory. A frame in which human home and society can evolve and thrive.*

<sup>3</sup> Bryan Lawson, *The Language of Space*, 2001  
<sup>4</sup> Juhani Pallasmaa, *The Eyes of The Skin*, 1995



### ‘MEHR ALS WOHNEN’ - CASE STUDY

*“A ‘cluster house’ designed by Duplex Architekten. This contemporary interpretation of a shared house allows people to live with varying degrees of privacy and autonomy.”<sup>1</sup>*

*When moving through the upper floors you gradually enter more private spaces. The lower floor is mainly communal but with the opportunity to occupy room privately for a short while.*

<sup>1</sup> Dansk Arkitekturcenter, Mehr Als Wohnen, Jennifer McMaster (web)



## ‘TOGETHER!’ - TEXT RESUME

*An economy of sharing is arising. You no longer need to own something to use it! A paradigm shift in social values can be seen in architecture solutions. A reinvention of collective housing has been triggered by two parallel but possibly related developments: changing demographics and the renaissance of the city as a hub for a new collectivity. There is a multitude of living constellations with people looking for alternative ways to satisfy their need to “belong”. By combining work, social, leisure, and open interface with the city fabric, collective living starts to function as a city within a city.*

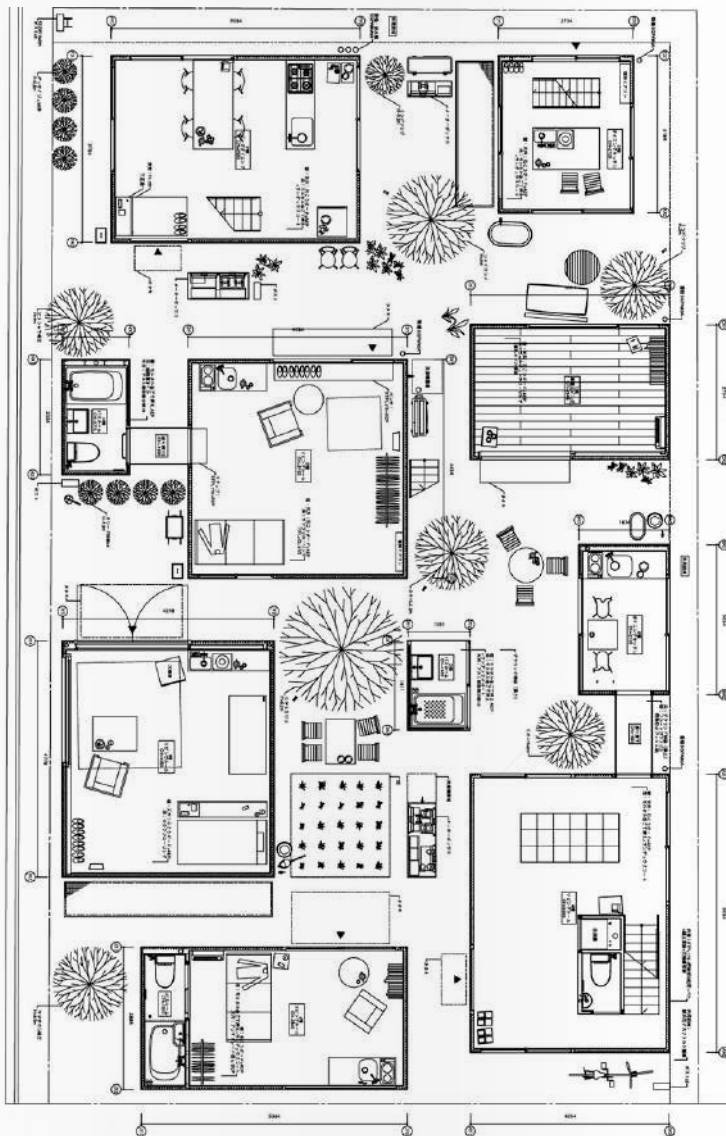
*Young urban professionals and senior citizens return to the city, thus bringing the threat of gentrification. A homogenous, left-wing, middle-class ghetto is forming.*

*An emergence of cluster apartments is appearing. Small studio apartments of about 20-35 sqm, each with a bedroom and a small kitchen and pantry, which are organised around a generously proportioned shared living area with a large kitchen. Enables singles to share part of their daily lives with other people while guaranteeing them a private space to which they can retreat.*

## ‘SPACE 10’ - STUDY SUMMARY

*Criteria for good co-housing:*

- \* *Main reason to co-live is to socialize*
- \* *Most would rather live in tight-knit communities of 4 to 10 people (except for couples with children, they prefer to be in a 10-25 people community).*
- \* *Most wants to live with a diverse group of people, preferably childless couples and single women.*
- \* *The biggest concern is the lack of privacy*
- \* *Most say that they would like to furnish their own room, and then have the common area done by an interior designer.*



### 'MARIYAMA HOUSE' - CASE STUDY

10 units in which mr. Moriyama inhabits 4 of them and subrents the remaining 6 to students. They try to live by the principles of "Wabi Sabi", Mr. moriyama taking it almost to the extreme and becoming an urban hermit.

Film: Moriyama-San, (63 min), Béka & Partners, 2017

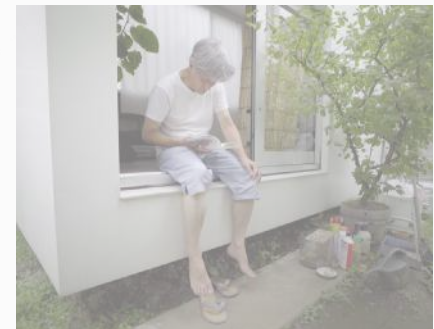
<He wanted a new house for him and his mother's dog.>

<He wrote a letter to an architect..>

<You don't need a house. - said the architect>

<You need a little village in the middle of a forest,>

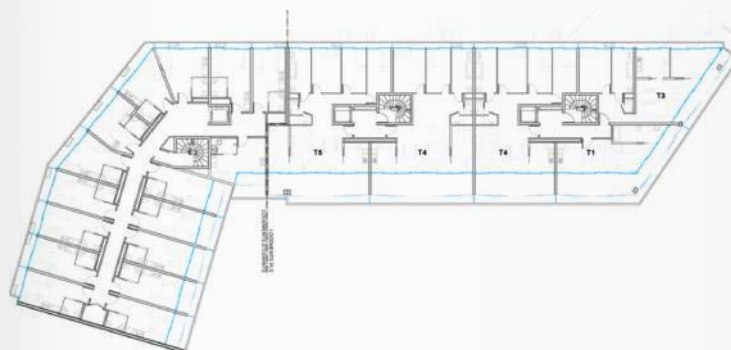
<but in the center of Tokyo>





**‘OURCQ-JAURÈS’ - CASE STUDY**

*All the social dwellings are either running through or double-oriented. The living rooms and kitchens of the units are on the garden side and open on to a 2,10m deep winter garden, south or south-east orientated, extending in a 1m deep balcony. The bedrooms and main bathrooms, well glazed, are on the north façade, and opens onto another continuous balcony. The student dwellings, from 19 to 23 sqm, opens onto a balcony by a large window, on the street side. On the garden side they also open towards a winter garden and then a balcony. Interestingly the balconies are all connected making it a social space for the entire building and the winter garden becomes a social space for the unit inhabitants. This not only a diffuse social zone, but also a diffuse temporal zone as the sun and general heating alters the climate inside.*



## ‘ZUKO HOTEL’ - CASE STUDY

24 sqm, hotel rooms, focusing on long time stays. User group is higher-middle class working nomads. A break with traditional hotel rooms, where the sleeping was the focus, followed by the service rooms. Here the living/ work room is centre stage. The dwelling is small but efficient - the walls are packed with functions and storage and even the bed has become part of the wall ornament. Tenants live here between 4 days to 3 weeks.







'tea room'  
06:07



'okoshie'  
10:39



'trabulant'  
29:14



'engawa'  
30:22

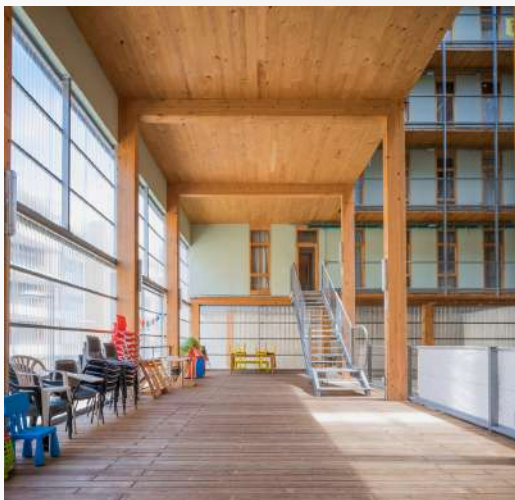
## 'KOCHUU' - DOCUMENTARY SUMMARY

The documentary "kochuu" explores Japanese architecture and how the holistic approach to architecture has influenced- and is influenced by the surrounding world. The word kochuu meaning "in a bowl" refers to the suggestion, that one can contemplate the universe from inside a very small tearoom.

"The architecture become the place where one can affirm one's existence in the world." – Tado Ando.

The shape of the house is not determinant by the exterior of the house, rather the interior expands and lends the house its shape. Hereby the building becomes more vibrant, irregular and asymmetrical. Generally Japanese architecture strives to be an extension into the surroundings and in this threshold, "engawa" we are neither inside, nor outside. Here the scenery can change with the seasons, guests or according to certain situations. **The rooms can change, just like a stage where objects are substituted for new once kept in storage.** An interesting space, with no predefined seating. A space with double scale – the human, and the "larger" scale.

"Kochuu" Documentary, Duration 52 minutes, Director: Jesper Wachmeister

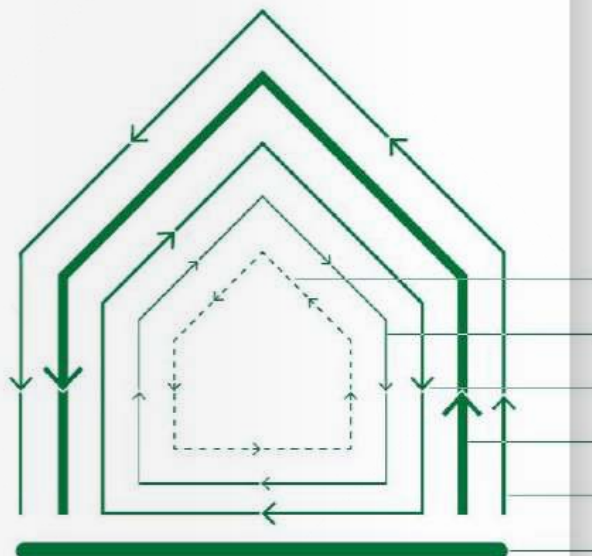
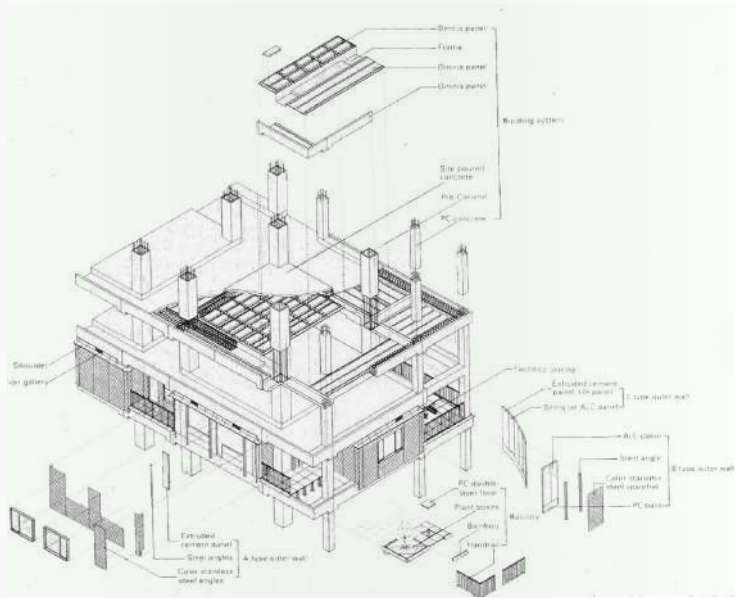


### 'LA BORDA' - CASE STUDY

*The ground floor connects with the surrounding city in a big open gallery. The interior courtyard becomes an 'atrium' that continues to the ceiling. The circulation is from ground floor, to common area on 1st-floor and then on walkways connecting to the residential apartments. Between the apartments are room modules that can shift ownership over time. The balconies are not separated, but rather open and shared with the other tenants on that level.*

Lacol, La Borda, Barcelona, 2016





## ‘NEXT 21’ - CASE STUDY

*An adaptable house with interchangeable components that are separable, so they can be change at different intervals. The different layers of the building have been separated into service and dwelling layers and partitions. This makes it possible to have a kitchen, bathroom etc. anywhere in the plan.*

*All joints are dry joints, which make it possible to dismantle and restructure the building if desired in the future.*

*It is an 'incomplete' building, which leaves space for the residents to build their own apartments according to their own preferences. This is also seen in the TILA project in Helsinki, where the architect creates the framework and the tenants design their own home within that given frame...*

*In layering it is important to **make long lasting building elements flexible**, so the short lasting elements can be easily changed. (Design for Disassembly)*

<i>layer:</i>	<i>expected lifetime</i>
<i>things</i>	<daily>
<i>partitions</i>	<3-30>
<i>systems</i>	<7-15>
<i>structure</i>	<30-300>
<i>facade</i>	<20>
<i>foundation</i>	<eternal>





Nails damage the material.



Fasteners can be found in all shapes and size.



Avoid glue and sealants.



Portland cement is impossible disassemble.



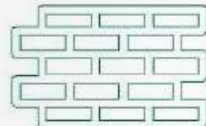
Use screws, pins, nut and bolts.



Use common and similar fasteners.



Use easy dissolvable binders



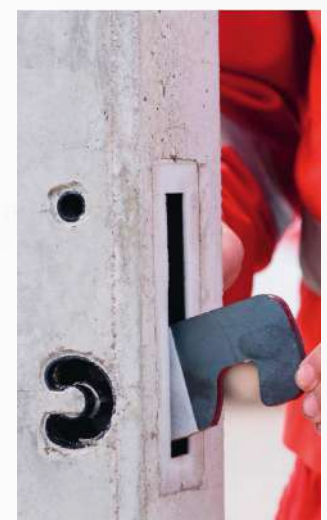
Use lime mortar instead.



## DESIGN FOR DISASSEMBLY

'Design for Disassembly' is a holistic design approach where the intention is to make any given product easy to disassemble into all its individual components. It is the cornerstone in circular economy as it fits into a **closed material cycle**, where components are reassembled and recycled to new products of similar or higher quality.

The connections must be reversible without damaging the components and easy to access - preferably even visible. Material quality has to be high in order for the components to endure being use and reused over and over. This way we start to see everything as a **material bank** where you save for the future. The underlaying new idea is that the building is not a permanet structure, but should be thought of as a temporary compliation of building materials.



## FLEXIBLE HOUSING - TEXT RESUME

*Flexibility can incorporate new technologies over time and adjust to changing demographics and building uses. This can be done as hard or soft systems.*

*Generic principles for flexible housing:*

- \* *Space: provide more space, but with lower specification. Flexible occupation is more important, than niceties of a fully fitted kitchen or a large decorated room.*
- \* *Construction: There is a correlation between construction techniques and flexible housing – make it simple and robust.*
- \* *Layers: It is important to identify different parts of the buildings: construction, structure, skin, services, internal partitions, finished and void spaces.*

*Flexibility is determined in two ways, the opportunity for different physical arrangements and secondly the in-built opportunity for housing different social groups (adaptability).*

*The case set against flexibility is opted in the Essay by Jia Beisi, "Adaptable housing or adaptable people." Where she argues that flexibility is but a gimmick and a sales word. But also, in the emotional rant of James Stirling who states that he is "sick and tired of boring, meaningless, non-committed, faceless, flexibility and open-endedness of present architecture."*

*This may be because the word flexibility is wrongfully used for its "rhetorical value" as a signal of progressive modernity.*

*"Flexible housing should provoke a feeling of temporal looseness and accommodates the vicissitude of everyday use over long time. Infact: interior flexibility should be limited to 2-3 pre-defined functions - not endless options.*

*courtyard typology*

*To cartograph 'elements of recognition' we examine the courtyard building as a typology. A typology which articulate the spatial demands of the past. But it is also a typology which has many commonalities with the japanese architecture in its treatment of materials, form and proportions...*



## ON THE TYPOLOGY OF ARCHITECTURE

*Typology is comparable to iconography in art and its presence is not always obvious.*

*- Symbolism cannot exist without type.*

*"Type does not present so much an image of something to be copied or imitated exactly, as the idea of an element which should itself serve as a rule for the model."*

*Type is more or less vague – and the model re-defines itself over time. It appears from a series of instances – prehistoric in fusion (having an obvious formal and functional analogy). You can either imitate a "perfect work of art" (or develop a new typology.*

*"type is a schema of spatial articulation – as a response to practical and/or ideological demands."*

*Types is understood as an additive series of particular characteristics in buildings and therefore, not understood as a certain structure, but as infinite variants. These variants may be:*

- \* *ideology*
- \* *structure*
- \* *decorative elements*



## GENIUS LOCI

*A survey of the characteristics of the courtyard buildings in "Latinerkvarteret" illuminates a variety of timber frame houses.*

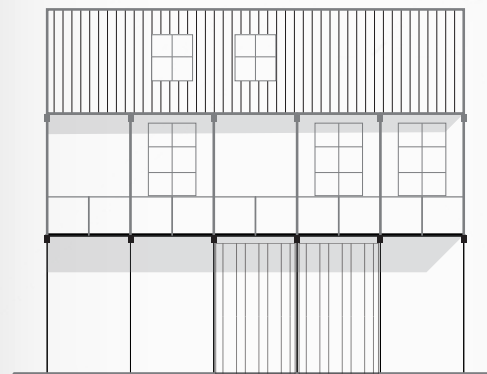
*There is also a variety of exterior spiral staircases, providing access to the upper floors of the building. (next page)*







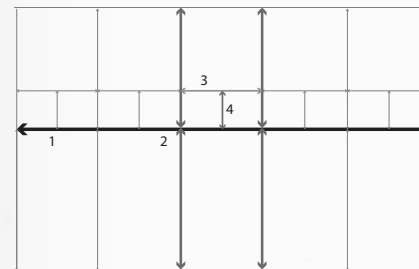
## courtyard typology



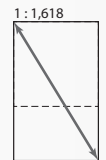
Ground walls are often plain or with shut garage ports divided vertically, first floor is subdivided both vertically and horizontally. First floor section is extended forward



The cross lateral beams in the floor section extends past the building (10-20cm)



The structure is visible on the outside façade, with a hierarchy from 1 to 4



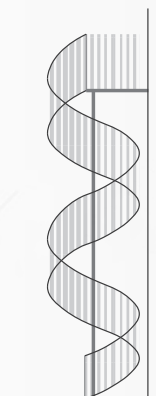
The wall segments are proportioned to the golden ratio ( $\phi$ )



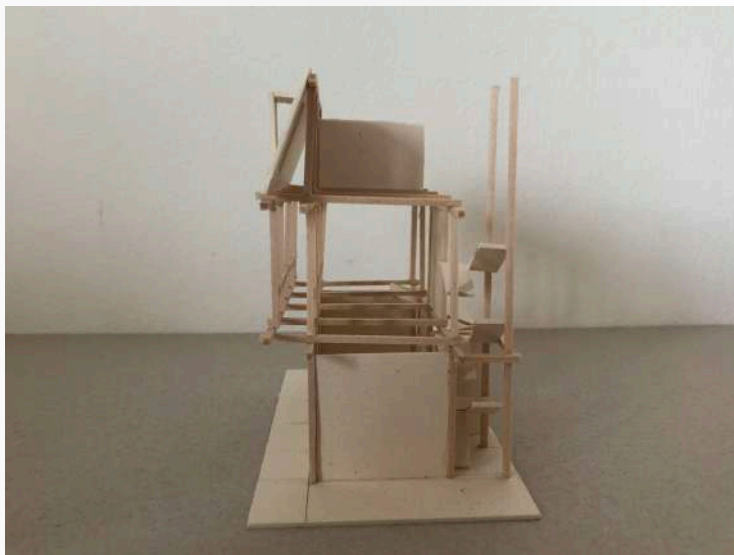
The high pitch roof has extruded window sections



Suspended walkways connect the upper floors, like a lifted "engawa"

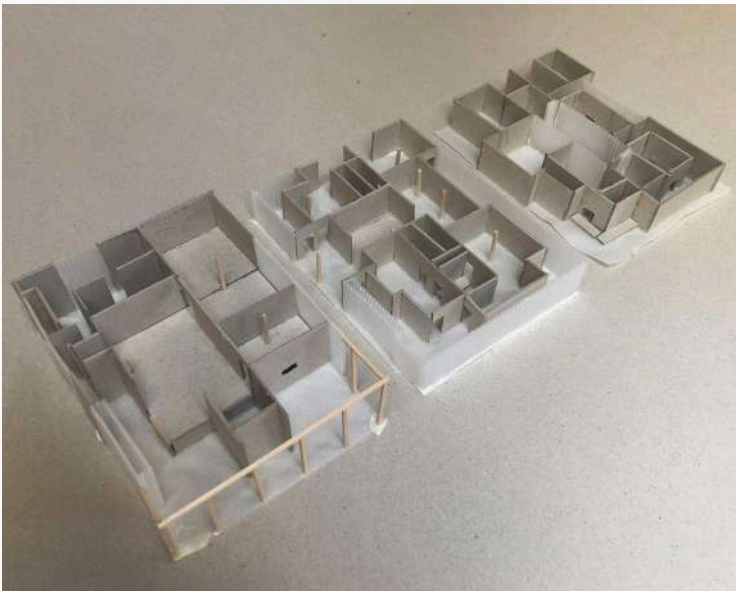


Spiral staircase connects upper floors



## CONTEXT STUDY MODEL





Elevations 1:100  
north (top, left), west (top, right), east (lower, left), south (lower, right)



*concept development*

PLAN STUDIES

*Model study on porosity between the floorplans and how the loadbearing is transferred down through the construction, 1:100.*

Ground and first floor transition, 1:100.

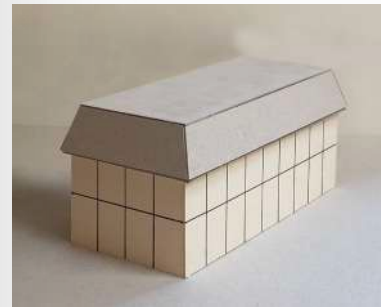




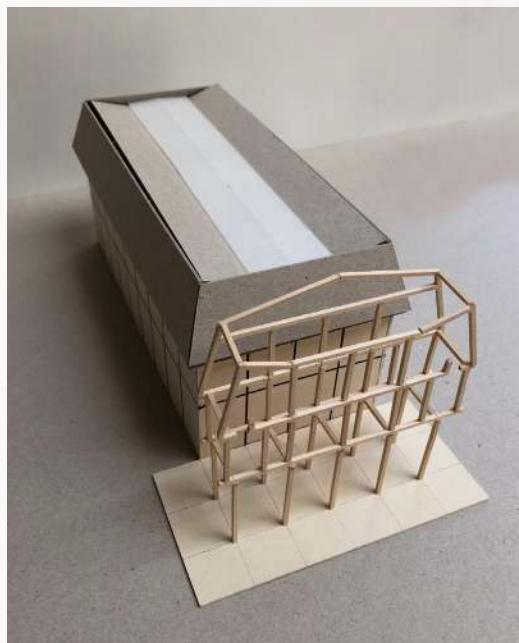
*concept development*

## ROOF STUDY

*Model study of roof constallations, 1:100.*

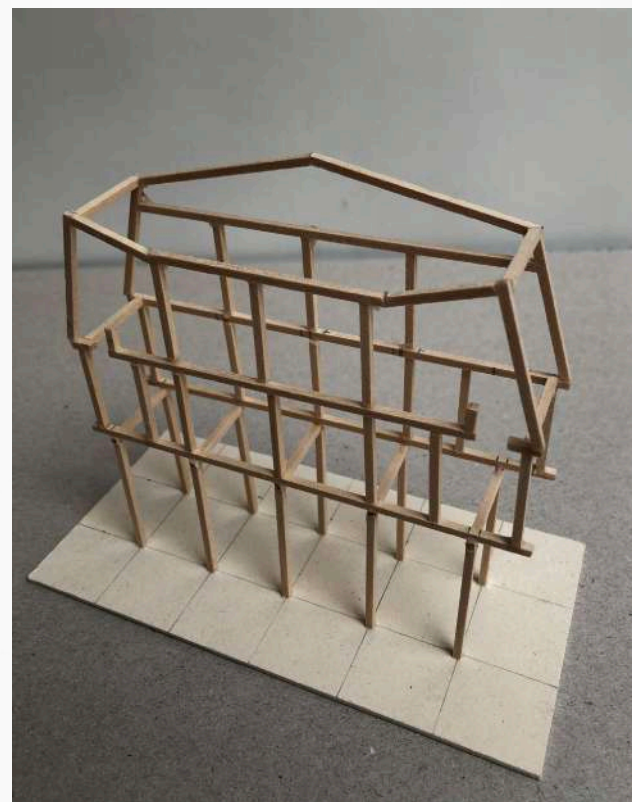






## CONSTRUCTION MODELLING

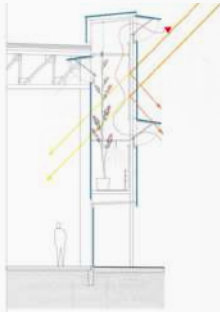
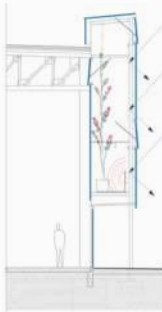
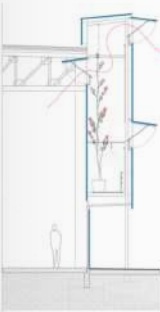
*Model study of different construction compositions and how they interact with the roof composition, 1:100.*



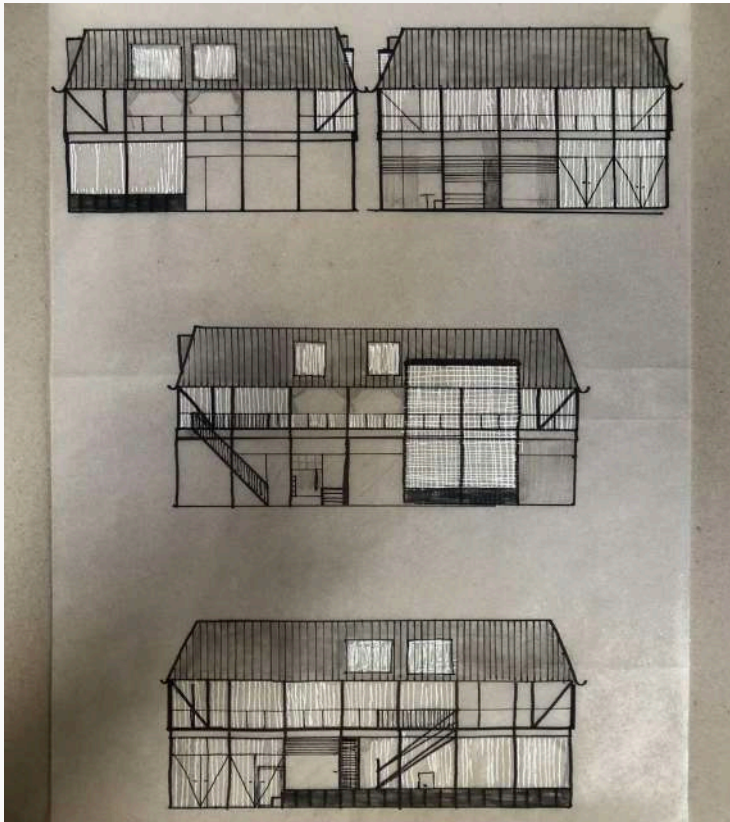


‘WINTERGARDEN’ - SURVEY

Paris Nord Villepinte, Fair & Exhibition Hall, Paris, France, 2007







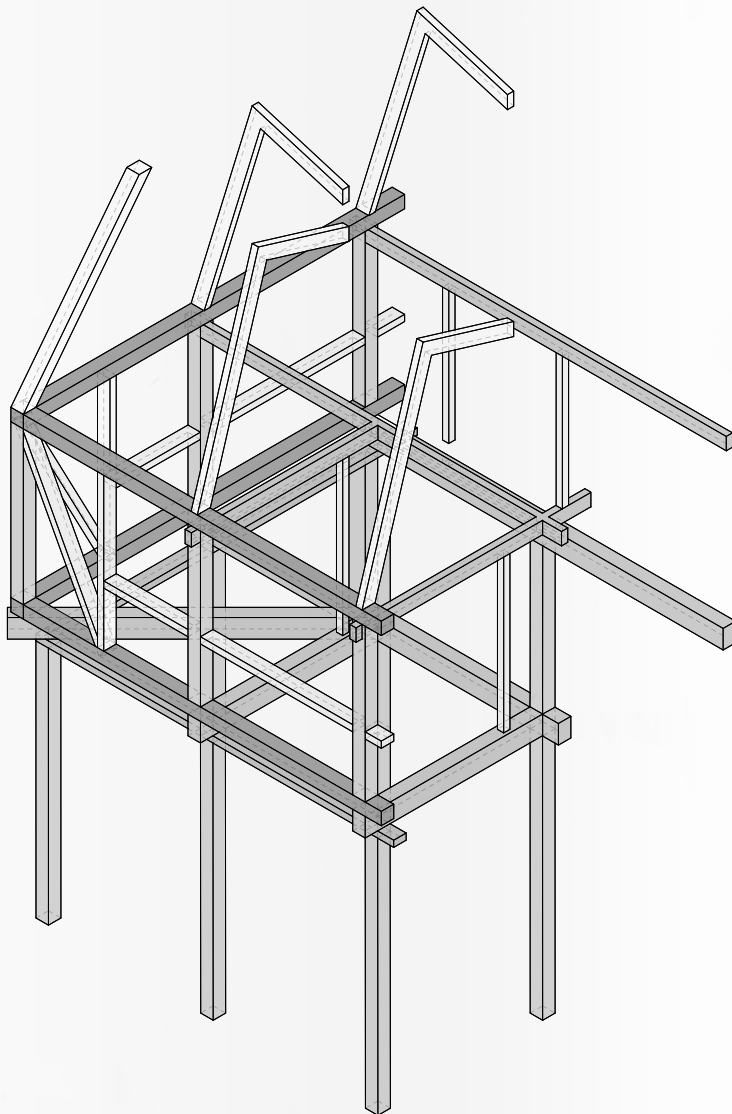
## FACADE POROSITY

*Porosity can be achieved both in the materials used, but also in the facade composition. Generally, it is desirable to have more than one depth to a facade, cantilever, roofs, door and window frames all subdivide the distance between public and private.*



*Niels Bohrs sommerhus*



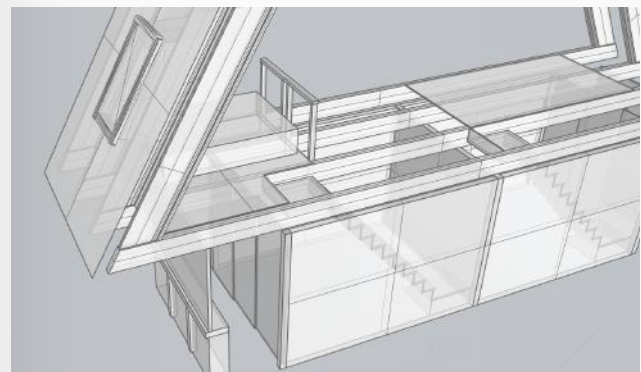


## CONSTRUCTION MEASUREMENTS

*In and around Tokyo the tatami mats are generally 0,88x1,76m - the 'Edoma' size. The tatami is 1 by ½ 'ken' (1,76m) or 6 by 3 'shaku' (0,293m).*

*If the buildings columns are placed CC/2,64m it will be equal 9 'shaku' or 1½ 'ken', thus fitting into the modular Japanese building system.*

*The timber roof beams are subsequently placed CC/0,88m (½ 'ken'), to allow for stairs to pass through, while being close enough to support a slim floor.*



## *project program*

*With the gathered knowledge we can start to comprise the 'phantoms', 'schemas' and spatial program for the project.*

### USER GROUPS

**Young adult** 19-34 years of age, studying or working. Little need for space, much for socialization.

**Couples** 19-34 years of age, studying or working. Need for a larger private space, still interested in socialization.



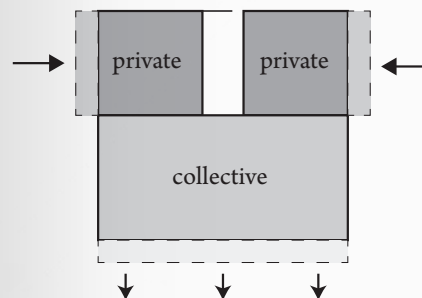
## 'PHANTOM'

- \* To counteract the emerging gentrification of the "Latinerkvarteret" this housing will focus on **social inclusion** by providing housing for young, low-income households.<sup>1</sup>
- \* The idea is to provide tiny housing that works as a facilitator for moving from a life on a student budget, to a stable budget in the tough 4 years after graduation, where apartment deposits are usually difficult to accumulate.<sup>2</sup>
- \* Hereby the housing become more of a **collective house for multiple stage of life** and with the possibility to evolve over time. Which is the missing link co-housing has needed to sustain!<sup>3</sup>
- \* The prospect is for groups of people to live here for cycles of 10 years, evolving from young student to adult. (study years + 5 years after).
- \* The tenants are childless couples and singles, 19-34 years of age.
- \* The collective dream is to share the workload of the household, cooking, and reduce environmental impact, by minimising consumption and partake in a social environment.

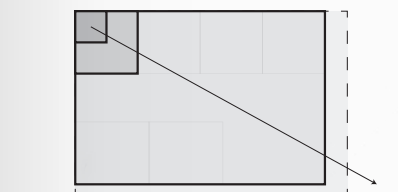
1 Article, Ekspert: Boligpriser vil udskifte byens befolkning, Jyllandspostendk (web)  
 2 Article, Boliger for singler – hvilke økonomiske muligheder har du?, Boliusdk (web)  
 3 Interview, Den gamle by, Hvorfor bo i kollektiv?, 720 min

## project program

## 'SCHEMATA'

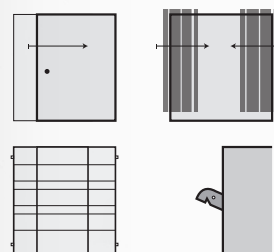


minimize private,  
maximize social  
reducing individual space, grants more space to  
the collective



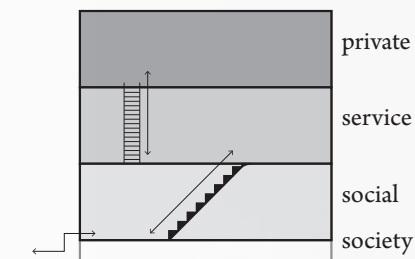
composition synthesis

from private to public we gradually increase size  
and reduce privacy



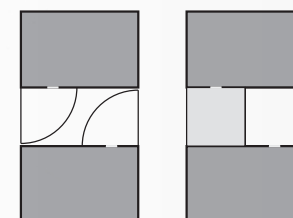
transformative elements

elements are used to alter a rooms privacy, size  
and function for short periods



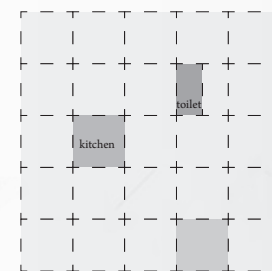
gradual transition  
through layers

building is composed in three horizontal  
divisions



transformative rooms  
borrowed rooms

inbetween rooms can be occupied, borrowed or  
used collectively in longer periods



social spaces  
(fixed vs fluid)

events and functions can happen in the common  
area, but some are fixed



When one or more tenants seizes a space, it can be done by various translucencies – dependent on the activity.

The kitchen and dining area are the central social elements of the building.

The ground floor is separated by steps, on which you ascend and leave your shoes behind.<sup>2</sup>

The ground floor houses the common facilities which includes a kitchen, gym, guestroom, toilets, a bathroom, library, dining room, living room, a podium, an entrance lobby, post boxes, a gallery, garden, sauna, greenhouse and a pergola/engawa.

The apartments consist of 2 floors - the bed is in the attic or pushed away<sup>3</sup>

Every unit is accessible through an exterior staircase and has shared toilets and baths.

Every unit has in-between-rooms which can switch tenants, ownership and function

over time – hereby the apartments can be extended and contracted.<sup>4</sup>

It is up to the user to define the use of these room, but they are not allowed to be social spaces.

Common bathroom, toilet, sauna/fireplace and kitchen are the only fixed elements on the ground floor.

In the remaining space there are no predefined functions – “the scenery change with season, guests, situations. Like a stage where objects are substituted with those in storage.”<sup>5</sup>

The interior furniture must be robust and flexible in use, while still being foldable/stackable enough to store.

### Construction

Construction is made as a frame structure – “as it provides the greatest flexibility” (Mies van de Rohe)<sup>6</sup>

Construction consist of standardized elements; “in buildings it is only significant if you

do not standardize - but that you use standardized things.”<sup>7</sup>

Walls thickness and door types changes as needed to indicate and separate the social and climatic gradients.

The building is mechanically changeable and follows ‘Designed for Disassembly’, allowing the different layers of the building to be swapped over time.<sup>8</sup>

Materials are solid, simple, robust and “cheap”.

### Site

Create a passage through to “Rykind plads”

A small privatized garden is located behind the building and is connected to the common spaces – transit zone here is inspired by the Japanese “Engawa”. A ‘Tokonoma’ and a ‘chashitsu’ creates a ceremony-room out back.<sup>9</sup>

Otherwise the ground floor is a pores space connecting to the outside.<sup>10</sup>

Domus Collective

1 Flexible housing: Means to an end, Tatjana Schneider and Jeremy Till, page 290

2 Kochuu, Documentary, Duration 52 minutes, Director: Jesper Wachtmeister

3 Zoku Hotel, Amsterdam

4 Lacol, La Borda, Barcelona, 2016

5 Kochuu, Documentary, Duration 52 minutes, Director: Jesper Wachtmeister

6 Flexible housing: opportunities and limits, Tatjana Schneider and Jeremy Till, page 159

7 Flexible housing: opportunities and limits, Tatjana Schneider and Jeremy Till, page 162

8 Building a Circular Future, Danish Environmental Protection Agency, 2016

9 Kochuu, Documentary, Duration 52 minutes, Director: Jesper Wachtmeister

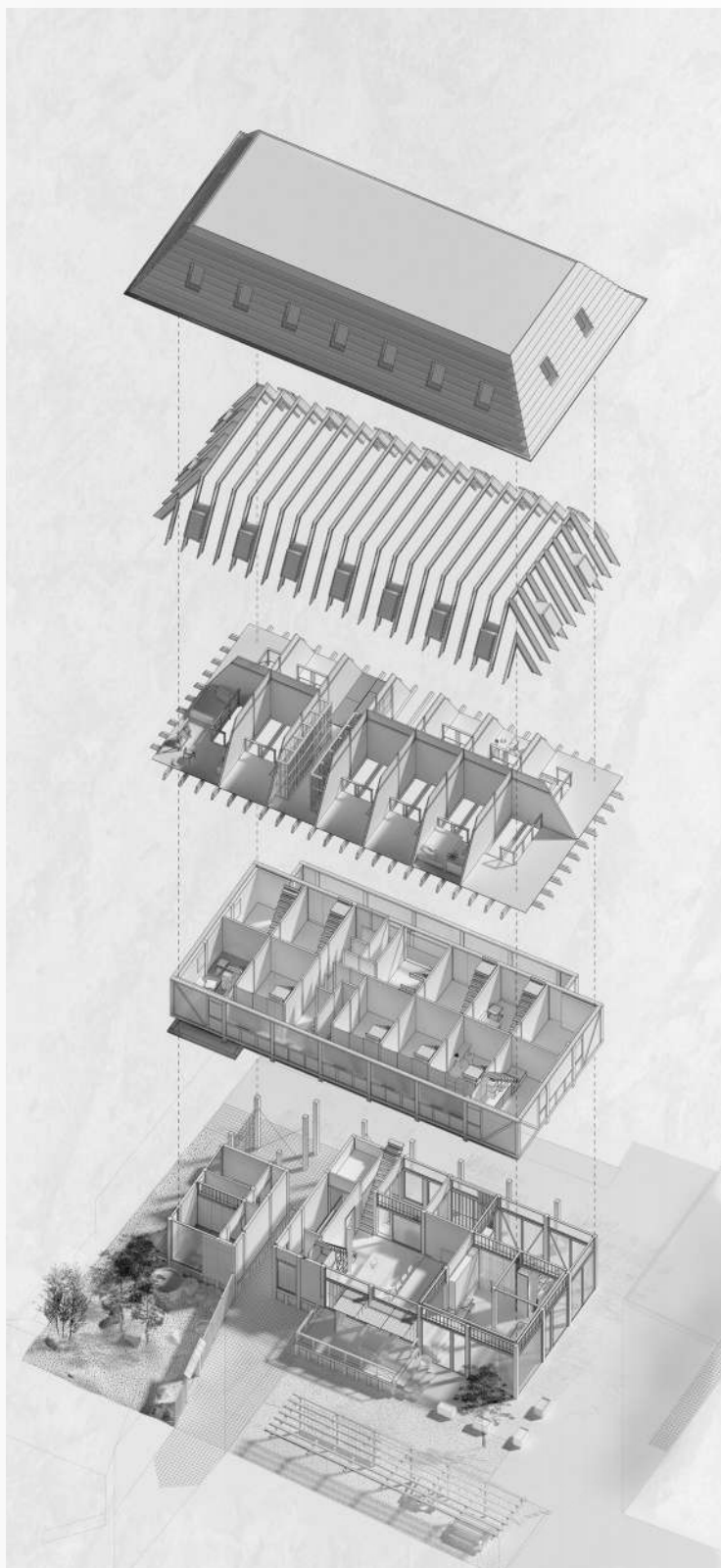
10 Mathias Muller, Daniel Niggi, Ilka Ruby, Andreas Ruby, Together! On the renaissance of the collective in contemporary urban architecture

### Composition

The building complex has 11-15 residences and consists of 11 static apartments divided into 3 clusters (units).

Vertical composition, grading from social on the ground floor to private on the top floor.

Some common rooms can be temporarily occupied by the tenants, thus privatizing for a short while.



## SPATIAL PROGRAM

<i>Grund floor</i>	130 m <sup>2</sup>
<i>first floor</i>	171 m <sup>2</sup>
<i>secound floor</i>	105 m <sup>2</sup>
<b>TOTAL:</b>	<b>406 m<sup>2</sup> (gross)</b>

*Project data:*

3 x Type A	15,32 m <sup>2</sup>
4 x Type B	12,99 m <sup>2</sup>
2 x Type C	24,81 m <sup>2</sup>
2 x Type D	20,02 m <sup>2</sup> (net)

*site area* 490 m<sup>2</sup>

*site efficiency* 82,8%

*area pr. inhabitant* 27-37 m<sup>2</sup>

