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# SECOND CHANCES

DWELLINGS  
SOCIAL AND MATERIAL  
REINTEGRATION

GRADUATION BOOKLET  
Midas Zacharias Hoezen  
4493719



“ If cities remain key to solving the challenges of an ever-growing world population, then architects need a holistic understanding of dwelling as a social practice and of the city as an **ecology**.”

*Ecology of Inclusion Studio Brief*

P. 7 RESEARCH REPORT

P. 72 DESIGN PROPOSAL

Big Thanks to:

My parents

My tutors

Bas Nijenhuis

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## **SECOND CHANCES**

Dwellings: Social and Material Reintegration

Author, editor & anything else:

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### **Graduation Report**

TU Delft

Msc Architecture

Advanced Dwelling

Ecology of Inclusion

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Images are own work unless specified



# RESEARCH REPORT

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## Preface

This text before you should be considered a report rather than a thesis, essay or academic paper. It documents a journey through different research fields and disciplines. The scope is widened due to the combination of pragmatic and theoretic research methods, as well as the translation of research into pragmatic and applicable design principles.

However, due to this breadth of scope, the level of dizzying philosophical inquiry with which I often struggle as well as the time constraint in producing this report, it became a kind of exploration of possibilities. A flight over fields that imply a certain connectedness, begging for further investigation. A method of inquiry that involves mixing and matching all kinds of insights that complement each other, akin to cooking a meal out of individual ingredients. A bricolage, to throw in a contemporary term, of what could be.

## THEORY ECOLOGY

"Here we are talking about a reconstruction of social and individual practices which I shall classify under three complementary headings, all of which come under the ethico-aesthetic aegis of an ecosophy: social ecology, mental ecology and environmental ecology."

Félix Guattari, *Three Ecologies*, p.41

### t.1 Guattari's three ecological registers

The concept of ecology as explained by philosopher and psychoanalyst Félix Guattari is central to the theme of the research and design project. Ecology in a broader sense than traditionally used to describe the mechanisms of the natural world. To also include human culture and its mental and social mechanisms implies an ecosystem that does not make a distinction between natural and cultural systems. When dealing with a changing world as an architect, where design interventions make a considerable impact on the ecology of a place, it is pertinent to discern how various environmental, social and mental processes flow, as described in Guattari's essay "Three Ecologies" <sup>1</sup>.

I focus the analyses of the project with the use of these three registers: mental, social and environmental as a baseline for the various analyses presented in the research report. Guattari's essay builds upon his work with Deleuze through a more direct application of the rhizomatic ontology that they developed. Especially the mental register of the ecologies argue for the importance of innovative practices, or, from the perspective of Thousand Plateaus<sup>2</sup>, the crossing of lines of flight from concepts establishing new knots of interaction and possibilities. Guattari emphasizes the importance of the 'transversal' coherence between the three ecologies; they should not be seen as separate but as three interconnected parts of one ecosystem, a multiplicity if you will.

Furthermore, Guattari's work in the psychoanalytical field is valuable. His involvement at a psychiatric institute called 'La Borde' and his collaboration with researchers and practitioners of others fields, including architects, in the *Centre d'études, de recherches, et de formation institutionnelles* (CERFI) has been researched by Caló and Pereira<sup>3</sup> who concluded that this group argues for a heterogeneity of spaces and discuss the role of collective equipment in the urban milieu, critiquing the principles of modernist architecture and urban planning.

A case study of a theoretical project proposed by architect Helene Sonolet "Centre de Santé Mentale" published in psychoanalytical magazine "Recherches"<sup>4</sup> shows the idea and practical proposal of integrating mental patients into an urban environment, allowing them to be part of society rather than being isolated.

1. Guattari, *Three Ecologies*, 27-69.

2. Deleuze & Guattari, *Thousand Plateaus*

3. Caló & Pereira, *From the Hospital to the City*

4. Sonolet, *Un centre de santé mentale urbain*

5. Foucault, *Of other places, Utopias and Heterotopias*

Foucault's notion of heterotopias, or 'other places', touch upon this subject as well<sup>5</sup>. Heterotopias of deviation such as prisons, retirement homes or homeless shelters are institutions where behaviour that deviates from the societal norm are situated and isolated from the normative social sphere. He later identified 'idleness' as a form of deviation, which is an undesirable activity from a neo-liberal standpoint seen as wasted potential, and the people that practice it are isolated from the rest of the population. Through these institutions social spaces are provided for the devious inmates, elderly, homeless and disabled. The question becomes how to integrate these heterotopias in the urban environment in an inclusive manner and consequently appreciate the social value that the devious can offer to the normative society in a dialectic manner.

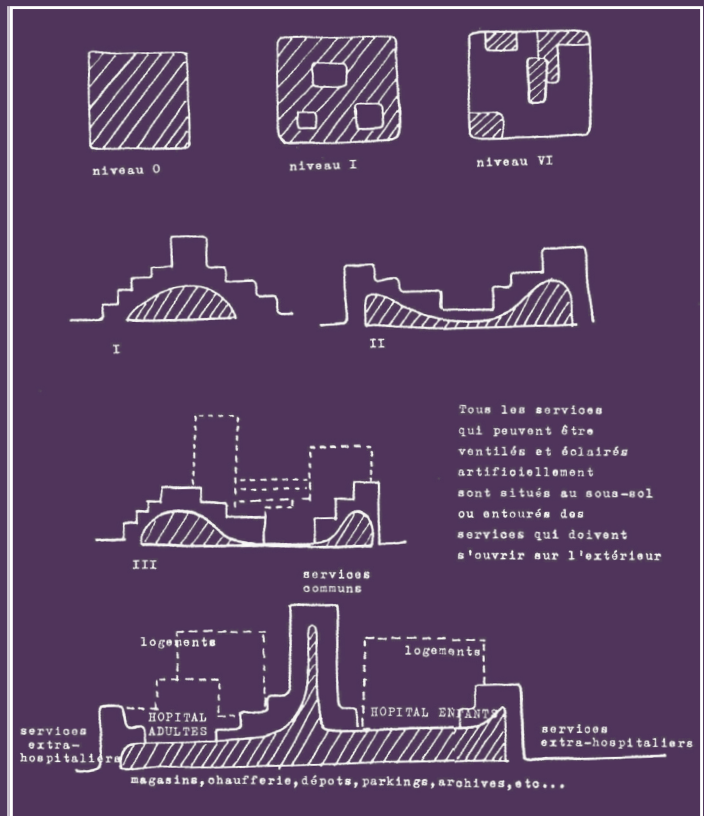


image 1. Diagrammatic design by Sonolet, *Un centre de santé mentale urbain*

## t.2 Architecture as an ecological tool

This reconstruction of practices is the main focus of this search. To think transversally or rhizomatically and make new connections, explore new possibilities of living in and around the built environment. This is the perspective of architecture that this research explores, specifically the design of dwellings and their impact on the local ecology; architecture not as the design of a static building but as the design of interaction, an on-going process. A building has a function, which in the case of dwellings is to house, to shelter, to protect, to provide privacy, etc., but architecture is rather about interpretation and association of that function within its ecological context.

Architecture is subjective in every sense of the word and works as a frame, either emphasizing or diminishing connections between the interior and exterior, mentally, socially and environmentally. Bernard Tschumi<sup>6</sup> call this the violence of architecture. A building is there and has an unavoidable impact on its surroundings and the people that come into contact with it and vice-versa, a body or crowd will alter the character of a space.

6. Tschumi, *Violence of Architecture*

Popular architecture places a lot of emphasis and importance on either aesthetics or cost-efficiency. While the looks of a design undeniably has a considerable impact on the urban environment, it neglects the mostly social, but also the mental and environmental workings of an architectural design. An oversized shoe-box can be aesthetically impressive but that does not mean it is either sustainable or beneficial for the environment, artificial or natural. Therefore a shift from the top-down aesthetic subjectification of an architectural design to the ethico-aesthetic appropriation of the user with regard to the situated context is necessary.

In extension it is important for an architect to be able to work economically. Especially when designing for people who are financially less well-off, to be able to design dwellings that are affordable yet qualitative. This is an aspect which, in my experience, is often overlooked in architectural education, but, when confronted with architecture in practice, becomes one of the most important aspects of a design. In this regard, it is the job of an architect to safeguard the quality of a design while finding creative solutions to minimize the costs of material and labour.

Including the concept of the three ecologies aids in acquiring the responsibility that an architectural design calls for. The inherent longevity of a building as well as the often rigid and static structure make its particular influence last for decades, requiring careful and deliberate planning. Having an ecological mindset enables the designer to take into account this influence in and between the mental, social and environmental registers of a design.

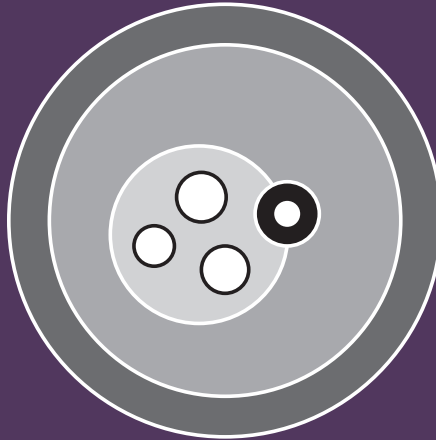


image 2. **How one relates to oneself (mental), the others (social) and the environment.** own work

# CHAPTER 1

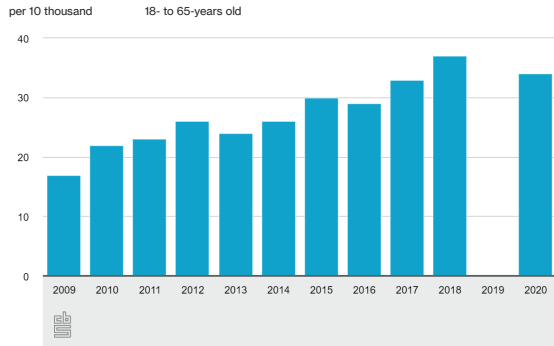
## INTRODUCTION

image 3. **CBS statistic, rise of homelessness in the Netherlands.** from <https://www.cbs.nl/nl-nl/nieuws/2021/13/stijging-van-het-aantal-daklozen-tot-stilstand-gekomen>

note: The article from the CBS (Central Bureau of Statistics) claims that the rise in homelessness has come to a halt. However it is clear to see that over the past 10 years homelessness has almost doubled.

Deviants of society, the homeless, former offenders, the psychotic, the addicts, the depressed and the handicapped are being considered a problematic group of people that takes up valuable space and resources. Marginalized by their bad behavior they are often written off as useless. They are helped through the state's welfare programs to often denigrating jobs and small, unfit apartments.

### HOMELESSNESS



### 1.1 Motivation

My cousin has had this experience first-hand. He made some bad decisions in his life and got around with criminally inclined people. After a violent incident, he decided to try and abandon that environment. He had developed a habit of drug abuse and suffers from psychosis, but with help from his aunt, brother, mother and responsibility required to care for his daughter is able to deal with it, even though he will carry this experience with him for the rest of his life. What the municipality offered him was a job in the parks department, which he said he liked doing, and a social housing apartment on the ground floor of a busy street, which occasionally triggers his psychosis. Especially the spatial implication that the positioning of his dwelling has in relation to the effect on mental health is of interest to me.

If it wasn't for his family and the personal attention they gave him, things might have developed differently. However, a lot of people in similar situations have lost their familial or personal relations and cannot fall back on their help. Especially these people need help, however difficult they are.

I argue that because of their experiences they can share their insight on the shortcomings of society. They have more to offer than just physical labour, if the issue is not only approached from a merely profit point of view, but also from social one.

What if we can see these devious people not as a problem to be solved, but as a window into the shadow side of our society? They have experienced their share of negative consequences of various exclusionary systems, from the speculative housing market to the biased labour industry. No matter how well your intentions are, if you have a haunting past then you have a disadvantage over people who have been more fortunate in their choices and social background.

## 1.2 Situation

Rotterdam is a city of tough labour and tough love. The industrial harbor is part of the identity of Rotterdam and of its people. There is a culture of equal exchange (voor wat, hoort wat, voor niets gaat de zon op, etc.) and it is generally looked down upon to live off of state benefits. It is historically a city with a large and poor working class, although this has recently began to change. The city is now attracting middle to high income groups, which the municipality and the market is further incentivizing by building housing primarily for these middle and high income people, often to the detriment of low income social housing which are being pushed out of the center, for example in the neighbourhoods Crooswijk<sup>7</sup> and Tweebosbuurt.

7. Pieters, *Crème de la Crooswijk*

	social housing corporations	private rent	institutional investors & retirement funds	private ownership	other & unknown
2015	47%	18,4%	2,2%	31,9%	,6%
2016	46,3%	19,1%	2,2%	31,3%	1,1%
2017	45,4%	19,2%	2,1%	32,2%	1,1%
2018	45,1%	19,3%	2,2%	32,3%	1,1%
2019	44,9%	19,9%	2,1%	32,1%	1%
2020	44,5%	21%	2,1%	31,8%	,7%
2021	44,1%	21,3%	2,2%	31,3%	1,1%

### Labour opportunities

Reintegration programs in the Netherlands works through a social program called the Participation act implemented in 2015 with the aim of decentralizing the previous welfare system so that municipalities have more control over how to manage financial distribution and organization<sup>8</sup>. Rotterdam takes a tough stance and asks of anyone that wants to receive financial aid a compensation in the form of 'voluntary' labour, which often comes down to picking up trash from the street under supervision. Not only does this cost the municipality a lot, as the pickers are checked by a couple of clerks who have a regular salary, but it is also a denigrating experience as the pickers are clearly visible in orange vests for the general public passing by to see. The documentary "De Tegenprestatie" (tr. "The Compensation")<sup>9</sup> shows the grating experience that people have to go through in order to be able to receive

image 4. **Housing stock by ownership in Rotterdam**

from BAG data, edited by OBI (municipality Rotterdam) <https://onderzoek010.nl/dashboard/onderzoek010/ruimtelijke-ordering--wonen-en-verkeer/>

8. SCP, *Eindevaluatie van de Participatiewet*

9. Lesterhuis & Raes, *De Tegenprestatie*

state benefits.

These are the kinds of systems that socially devious people also have to deal with. Being told that you if you live off of benefits, that you essentially leach from “regular” working people, sending out hundreds of job applications only to get rejected, while dealing with the housing crisis feeling there is no place for you in the city. These are factors that can push anyone into destructive behaviour, aggression, criminality, substance abuse and extremism.

#### Housing development

Housing development is currently dealing with a shortage of housing stock and prices that have more than doubled since 2013. The waiting list for social housing in Rotterdam has climbed to unprecedented heights, to get a chance for a social dwelling you have to be in the waiting list for at least 10 years. There is a trend of younger people establishing themselves in Rotterdam as the city can provide relatively good job opportunities in the educated sector. On top of that, Rotterdam is a university city and attracts students for whom the housing shortage is a barrier in their choice of education. Lastly, the population of the Netherlands and also Rotterdam is facing a period where an increased part of the population is elderly. New and existing buildings need to be accommodating for these groups of people and provide a qualitative and inclusive living environment.

Starters, students and elderly are all part of a cultural development where people tend to live increasingly more solo. Better welfare, emancipation, improved mobility and digital connectedness not only make living solo less problematic, but desirable<sup>7</sup>. The problem lies in forming personal connections and even communities in the direct environment. This is especially the case for the primary user group in this research who are also solo dwellers: the socially devious.

The existing housing stock is often inadequate or not fit to the needs and wants of the aforementioned social groups. New housing is usually developed for families that are too big for solo dwellers. Especially post-war housing is hard to adapt to today's norms due to their mass produced, prefabricated structure.

#### User groups

There are two groups of users that the research examines. The primary group are people who are socially disadvantaged by a troubled past. The demographics of this group are widely variable, although a relatively large part consists of young adult males.

The other users who are included are people operating in the normative, liberal economy and are able to sustain themselves autonomously, but may have needs elsewhere, such as the social domain. These are the starters, students and elderly described in the previous paragraph.



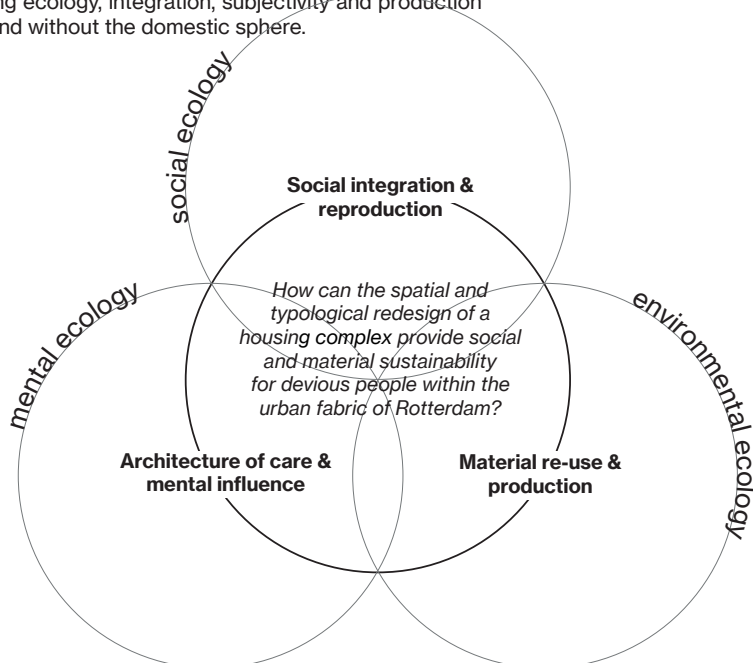
Both groups can be placed under the term 'solo dwellers'. In terms of space requirements they are more or less similar due to the size of the household, but differ in their social desires and rhythms of use. Important to take into account is the level of mistrust or prejudice normative dwellers can have towards the primary user group. On the other hand, both groups have a lot to offer to each other as well.

### 1.3 Research structure & Method

The goal is to research the housing of socially devious people, how to re-use existing buildings and in a wider sense how residential architecture interacts with care, production and social relations. The research is framed by the spatial, social and juridical practices and initiatives of the municipality and the people of Rotterdam, which is the place where the dwelling design studio Ecology of Inclusion is situated.

This research casts its net over a wide range of topics, that are seemingly unconnected, but prove some surprising insights. In line with Guattari's call for transversality, I look for hidden connections, innovations that are already there but just need to be consolidated. This wide scope however means a diminished precision. If I would dive into detail for each theoretical theme, this paper would become a book that requires years of research on a level which is beyond my experience.

In its theoretical part this research looks towards ideas regarding ecology, integration, subjectivity and production within and without the domestic sphere.

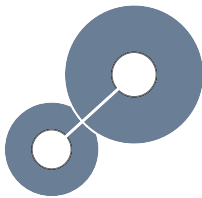




## **INTEGRATION**

As mentioned, three registers are distinguished, according to the ecosophic principles of Guattari. These registers are the mental, the social and the environmental or material and they are used to analyze the practices and case studies according to the same principles. These registers are used to derive the three theoretical themes, integration, subjectivity and production, that throughout the whole research report interject as a kind of theoretical intermezzo. These theoretical parts explore theories that are related to the frames and pose the subquestions that are the starting points for the chapters that follow. Avoiding generalizing statements, these questions are the architectural conclusions of each theoretical part.

Chapter 2 dives into the concept and principles of 'Housing First', a praxeologic study into the idea that every person has an unconditional right to a house. It looks at the interplay and evolution of the organizational, institutional and structural implementation of Housing First in the Netherlands with the experience, agency and personal involvement of the clients or residents who take part in the program.

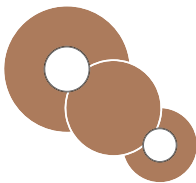


## **SUBJECTIFICATION**

Chapter 3, 4 and 5 are typo-morphologic inquiries into case studies that have a social and typological surplus quality. As of yet, no useful precedents exist that include the housing of socially devious people and the same goes for the combination of industrial workspaces and residential dwellings.

Chapter 6 and 7 include Rotterdam and innovative productive practices in the research, as well as the analysis of the neighbourhood and site of the design project.

The architectural aspect comes in the question how to provide both the regular residents as well as the devious residents to have the right amount of privacy - engagement balance through spatial and material interventions. How to design within a residential complex the common spaces, the dwellings and the traffic routes so that a sense of community can be promoted. I will also look at the inclusion of workspaces and their interaction with the complex.



## **PRODUCTION**

The findings will be summarized into a set of design principles accompanied by a graphic novel. The subquestions posed by the theoretical intermezzos can be uniquely answered for each individual design in nature and are pragmatically based on the praxeological, typological and morphological analyses. The accompaniment of the graphic novel aids in the imagination of the problems and practices. While fictional as a whole, its events are based on interviews and personal experiences.

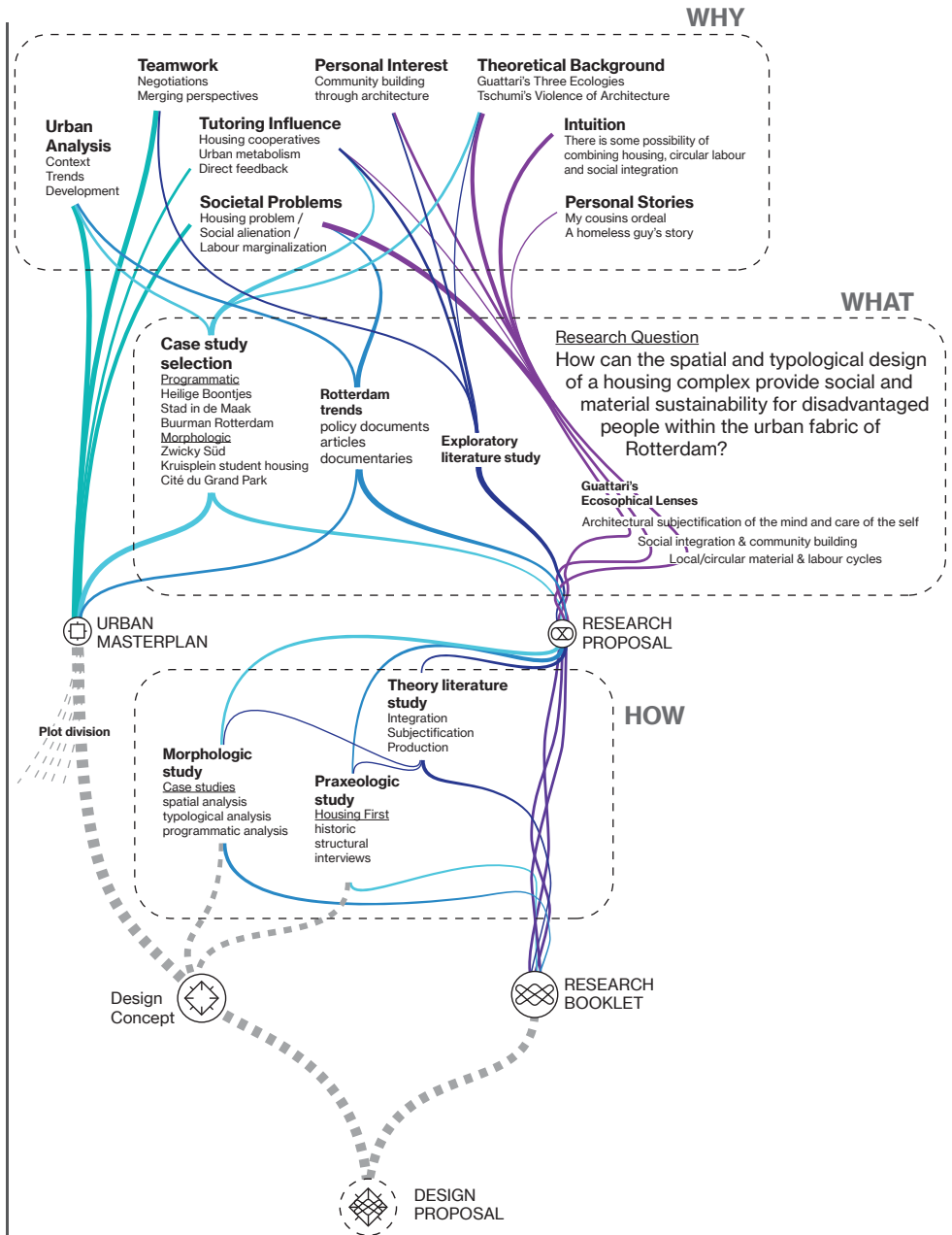


image 5. Research process  
own work

## THEORY INTEGRATION

*"[Reconstruction of social mechanisms] will not come about through centralized reform, through laws, decrees and bureaucratic programmes, but rather through the promotion of innovative practices, the expansion of alternative experiences centred around a respect for singularity, [...]."*

Félix Guattari, 1980,  
Three Ecologies, p. 59

### t.3 Social reproduction

The feminist-marxist notion of reproductive labour is to this day still undervalued in relation to waged labour and commodity production. The type of care that socially devious people often lack: receiving personal attention, being listened to, but also being able to counter-offer informal help, is created by this type of reproductive labour.

In Gibson's<sup>11</sup> example of a bamboo bridge that is being replaced by a concrete structure shows the whole ecology of labour and social relations that the maintenance of such a bridge brings. The concrete replacement, while more efficient in almost every way, makes a whole ecology of specialized labour and social relations obsolete. This is indicative of the neo-liberal attitude towards the production of housing as well. The efficiency of a gallery housing block makes economical and spatial sense, but loses the surplus social value that, for example, a courtyard type block offers.

11. Gibson, *Speculations on Architecting Care Beyond the Anthropocene*, 108-113

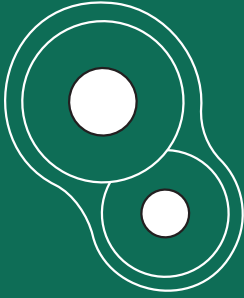
Production and maintenance of supportive societal structures is provided by the members of the lower to middle income classes. The teachers, nurses, shopkeepers, car mechanics, daycare workers, provide services that the entire functioning of society depends on, yet are undervalued in capitalist systems of commodification and growth.

Social reproduction could be given a more prominent place in everyday life. Rather than confining reproductive labour to periphery of large hospitals, elderly care homes, mechanical maintenance halls or shopping malls, these functions can be beneficial to the ecology of the urban environment if integrated in an inclusive fashion. Following the argument of Guattari to place institutions and residences in proximity provides architects with a concept for new constellations of work and dwellings. In relation to re-integration of the socially devious, inclusion into the urban milieu provides opportunities of social reproduction with neighbours. Socially excluded people often form their own community that sustains itself and enforces their behaviour, a negative example of social reproduction. Should a person want to leave such an environment, then it is necessary to leave this circle of reproduction behind and form new and stable relationships. Access to a dwelling and the possibility to retreat is necessary in such a situation.

### t.4 Re-use

Re-use and adaptive transformation of dwellings is not a new practice. Combining small workers apartments into a family dwelling or dividing a townhouse into smaller apartment rooms are examples of dwelling adaptations that has been applied for centuries, making residences possibly one of the more stable factors in an urban environment. This is the argument that Nycolaas makes in her essay<sup>12</sup>, using Habraken and his book "De dragers en de mensen" to show that post-war mass housing is preventing this kind of slow and steady adaptation due to its type of ownership as well as the uniformity of the building and urban plan.

12. Nycolaas, *Unplanned Adaptation as a Development Strategy*, 5-13



13. Kockelkorn & Schindler,  
*Cooperative Conditions*

These two types of development can be characterized in a Lefebvrian sense. The traditional adaptation of dwellings would be social space, construed over generations and by many different people, whereas mass housing development would be abstract space organized top-down from the state.

In terms of ownership, both forms of individual and corporate forms of ownership pose problems to adaptation of mass housing. Corporations, be they private or social, will usually only invest in the building as a whole, limiting the creative freedom of their tenants to strive for aesthetic uniformity or efficiency. Individual owners, while able to change anything in their private domain, have little agency over the rest of the building. Combining or splitting dwellings becomes a difficult endeavor, it is easier to find a new home. From a social sustainability point of view however, it would be beneficial if people would be able to stay in the same place for a long time, even if their housing needs change. Cooperatives<sup>13</sup>, a form of tenure organization where a collective of residents own the building which they occupy, can provide a solution to this kind of adaptation. The cooperative can decide collectively that an adaptation in the building should be made to accommodate for current and future dwellers.

14. Lepratto, *Housing  
Bricolage*, 14-31

Every project developer, policy maker and architect can make a new building. It is relatively easy, fast and cheap to appoint an empty plot or demolish a building and build something new that follows all the contemporary expectations, using standardized plans and construction methods, requiring almost no creative solutions. It is much more difficult to redesign an existing building to fit modern standards in both energetic aspects as well as social aspects. Transformation does however provide more opportunities to create a more sustainable environment, both materially and socially<sup>14</sup>

- Reduces the need for new material production
- Residents can remain in the building
- Urban identity & recognition stays in tact

This all calls for an attitude towards housing development that moves beyond modernism, not in a post-modernist 'anything goes' sense, but in a combination of traditional building adaptation practices with modern dwelling densification.

### Pragmatic implications

*What organizational methods can be used to include deviant people into a new social environment and how does it take into account the user's needs?*

*How can existing post-war building structures be re-used in a socially differentiated and material sustainable way?*

## CHAPTER 2

### PRAXEOLOGIC STUDY:

#### Housing First

#### Social inclusion

### 2.1 Housing First concept

The problem of homelessness has been a big problem in the US for decades. Due to the lack of governmental systems to provide some form of aid towards the problem, dr. Sam Tsemberis, a community-clinical psychologist, active at the UCLA Department of Psychiatry and Biobehavioral Science, developed the organization of Pathways to Housing in the city of New York in 1992. It works on the idea that every human has a basic right to a dwelling, no matter their issues or their background. As homelessness often coincides with addictions and psychic problems that form a barrier to maintain a home, Tsemberis insisted that the right to a home is unconditional and should be the first step in helping socially and mentally devious people. After having the security and stability of a place of residence, they can be helped further with psychological and/or financial guidance.

From this basis, the model of Housing First was developed, operating on 5 principles.



image 6. **Housing First principles** source: <https://www.pathwayshousingfirst.org/>



Ronald Reagan, *Good Morning America*, 1984

The development of the concept was a reaction to lack of social policies of even regressive decisions by the state. In the U.S., homelessness was seen as a mental health problem. President Reagan even said that *"One galling problem we have, are the people sleeping on the grates, the homeless who are homeless by choice"*, framing that the problem of homelessness is the problem of the individual, all the while reducing housing subsidies by 75%. This mindset has been the dominant mindset of neo-liberal societies.

### 2.2 Institution

In 2005, Rokus Loopik, a Dutch political activist/initiator, brought the concept of Housing First to Amsterdam from New York. From his staunch belief in this principle he tried to convince the municipality to start a pilot program. A year later the organization Discus, called after the Discusstraat

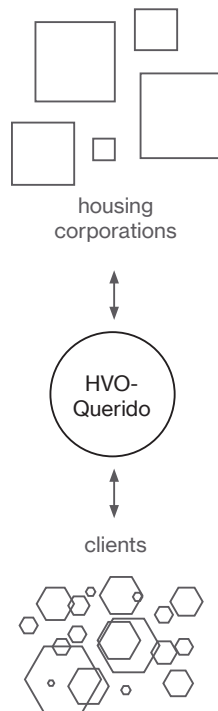
where their office was located, started with 26 clients. A study of the Radboud University showed the potential that the program has, with regards to the old “laddermodel” of housing integration that required their clients to first prove themselves through a series of increasingly strict requirements like abstinence, punctuality and proper behaviour before they were provided a dwelling. Where the old model has a succes rate of around 60%, meaning that 60% of their clients was able to keep their home for at least a year, 97% of the clients of Discus managed to maintain a stable living in their new dwelling. Starting out with 6 employees, Discus has grown to 110 employees, having housed more than a 1000 clients and since 2016 the municipality has decided that Housing First became the primary local model.

Since then Discus has been incorporated into HVO-Querido, an organization that offers more than just housing. They work as an intermediate between their clients and various institutions such as social housing corporations and healthcare facilities. Discus rents apartments from social housing corporations and in turn rents them to their clients. The clients are still responsible for any transgressions they make, but it is Discus who decides whether to kick them out, not the housing corporation.

### 2.3 Residents' experience

Valerie Boogaard, teammanager of the expertise center of HVO-Querido with 13 years of experience working with homelessness, emphasized during the interview again and again the importance of personal attention. Marginalization and isolation are among the heaviest of factors on the mental health of their clients. She and her team developed an alternative version of Housing First called 'Anders kan het ook' (tr. 'Alternatives are possible')<sup>15</sup>, where the emphasis lies on the wide and differentiated range of problems their clients have and where a generalizing institutional methods would fail to be able to truly help them. Instead creative solutions and personal connections are encouraged.

“It takes a village to save a life”  
 - Rokus Loopik <https://www.rokusloopik.com/>



15. Boogaard, *Anders kan het ook*

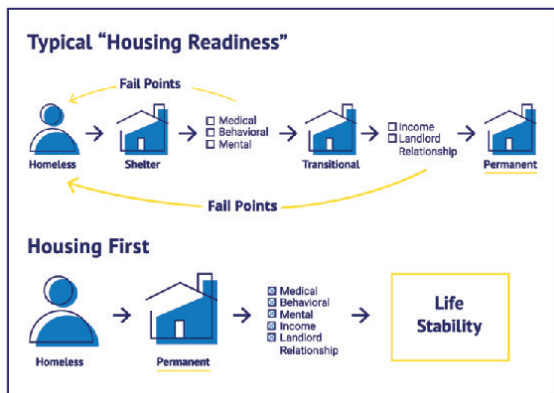


image 6. **Housing First process** source: <https://www.abodeservices.org/housing-first>

For example, she showed that when a client receives a dwelling from the organization, it is presented as a surprise. The client is asked to meet in a place nearby the dwelling with some excuse, not knowing that they are going to receive the keys for their new house. The surprise and personal attention makes it into a momentous occasion, an unforgettable and important event in their life, making them feel validated. With a minimal budget they are then able to choose simple and affordable furniture, or as Valerie put it: “what color their curtains are”, to help appropriate their dwelling according to their needs and taste.

Every client that I spoke to is grateful for the dwelling they received. The three people that were interviewed, while having diverse interests, had no serious complaints regarding the way HVO-Querido operates.

The most complaints came from the urban environment their dwelling was situated in. One resident commented that the neighbourhood she lives in, Venserpolder Amsterdam, becomes an absolute island after 10 in the evening where nobody can be found on the street “and you can’t even go out and buy a simple sandwich”. Even though she appreciates the quietness, boredom can become a big problem. Temptations of substance abuse often resurface during boredom, requiring a strong mental fortitude or social discouragement from their Housing First attendant or even better close social contacts in the neighbourhood.

On the flip side, too much stimulation can become a problem too, especially for people dealing with anxious or psychotic tendencies. Another client, who lives in a ground floor dwelling, avoids the room located at the street side of the dwelling. The busyness of people passing by, cyclists and cars has a negative influence on his mental stability. The reason he is still satisfied with his home is the availability of a garden.

Not an architectural element, but still noteworthy is the fact that there were multiple accounts of how important an animal companion is to the clients. The person with the ground floor dwelling is so glad he has a garden mostly so that his cat can go outside. The woman living in the Venserpolder, whose dwelling is a studio on the 4th floor of a portico building, had to bring her two cats to her partner because they would not have enough room. Animal companionship has a positive influence on the homeless, providing a sense of responsibility and affection between the animal and their owner.<sup>16</sup> The image of a vagabond with his trusty dog by his side a strong and stereotypical image for a reason. Accommodation of pets within and around the dwelling is an element that could be considered in a

16. Cleary et al., *The Homeless and Their Animal Companions*, 47-59

image 7. **The vagabond and his animal companion.** <https://www.qni.org.uk/wp-content/uploads/2019/04/Homeless-man-and-dog-nick-fewings-1155069-unsplash.jpg>





design.

Evidently, there is not one optimal dwelling or situation that can satisfy all socially devious persons. They are just like every other individual in their variety of need and wants, temptations and triggers. What is common however is their benefit from social contact and social reproduction with their direct neighbours. Not only can they provide help in situations of crisis but also provide them with a sense of feeling accepted, of not being marginalized by society at large.

## 2.4 Expansion

Housing First has proven itself to be a successful model of reintegration, yet is limited to homeless that also have mental or social problems. Could the premise that housing is an unconditional right be expanded?

Up until a few years ago, HVO-Querido would provide the service of Housing First only to “two-factor problematics”, meaning people who are dealing with two or more insecurities such as homelessness and social, medical or mental issues, to give priority to those people who need help the most. Since a few years, the municipality of Amsterdam is looking to expand this premise to people who experience housing insecurity in a more general way. Various new organizations have been set up that mediate between social housing providers and the users that need it. The experience center of HVO-Querido provides the knowledge necessary to deal with the problems that can be encountered. Valerie plays an essential role by combining the practical know-how of dealing with clients as well as the organizational skills to communicate this knowledge and teach others how to approach the situation.

## 2.5 Conclusion

Integration calls for personal attention, a different social environment than that they were in and the possibility to creative opportunities. At the moment, housing corporations allocate certain parts of their housing stock to house the devious. While this model is successful and adapted to the limits of social housing corporations, the question rests how to design a new complex with regards to integration and inclusion of temporary and longterm housing.

A careful balance of privacy and interaction with the neighbourhood needs to be achieved. On the level of the dwelling this means the provision of different spaces that allow the resident to retreat, but also sometimes create connections with the rest of the buildings. The ability to appropriate is important to make a house a home, extended into the public sphere. In later chapters the inclusion of workspaces into the dwelling complex is investigated to also provide the possibility to labour and the development of professional skills.

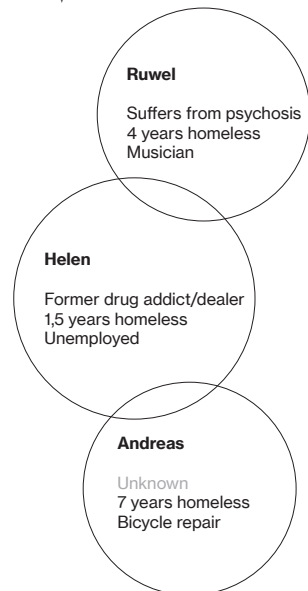
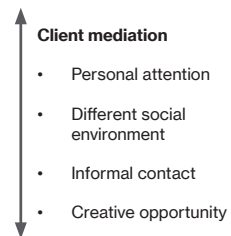


**Valerie Boogaard**

Personal contact clients

Coordinator Expertise Center

“Anders kan het ook” approach  
(tr. “There are alternatives”)



## CHAPTER 3

### CASE STUDY:

#### Klarenstraat

#### Mass-housing renovation



17. Klijn, *DASH: from dwelling to dwelling*, 149

18. Te Velde, *Anyone can build new house*, 39-43



image 8, 9. **The building in the 1960' and 2016.** 8: Stadsarchief Amsterdam (no. 5293FO015914) / 9: Rufus de Vries

### 3.1 Historic and urban context

This project consists of the transformation of a traditional post-war mass produced portico building with a single dwelling typology into a differentiated building where the residents could decide their own spatial needs. In 2015 it won the Amsterdam Architecture award that described it as follows: "Klarenstraat represents a contemporary project (...) an example for the disposition of residents, architects, corporations and financiers."<sup>17</sup> Through participation with the future residents, the architect transformed this limiting housing block into a differentiated dwelling complex.

### 3.2 Morphology and typology

The 40 identical single family dwellings of 75m<sup>2</sup> were turned into 30 new dwellings ranging between 40m<sup>2</sup> and 190m<sup>2</sup>, of which none are the same. Vanschagen architects used the existing structure to make a framework consisting of 45m<sup>2</sup> blocks that the residents were able to link together based on their spatial desires in a participatory process. The structure is considered collective, while the infills that the residents themselves contributed to are considered private.

The facades, entries, insulation, acoustic floor with integrated heating as well as constructive alterations within the dwellings were designed by the architect while the rest was left up to the residents. In practice however this division was not so clear cut. An example they gave was that the floating floor is important for the collective as sounds insulation and in order to save the minimal floor height, heating would be included.<sup>18</sup> This meant that the interior had to be known beforehand, as floor heating cannot be placed under certain appliances like a refrigerator.

### 3.3 Conclusion

A translation of this particular way of dwelling appropriation could be applicable to the integration of deviant people as posed by the Housing First principle. Does the right to a house extend to the right to build a house? They could be given the option that the residents of the Klarenstraat have had, namely, an empty shell which they then have to build up with finishings and interior walls and furniture to make it their own. Not only would they be able to create their home environment to their own needs, but also in a mental way get a feeling of having earned their home, through the effort and work they put into it.

There are some obvious difficulties of course, such as (lack of) work expertise and supervision, safety and labour laws, organization and cooperation between the often problematic user group and the designers/constructors. What amount of freedom in the planning and designing can be given away?

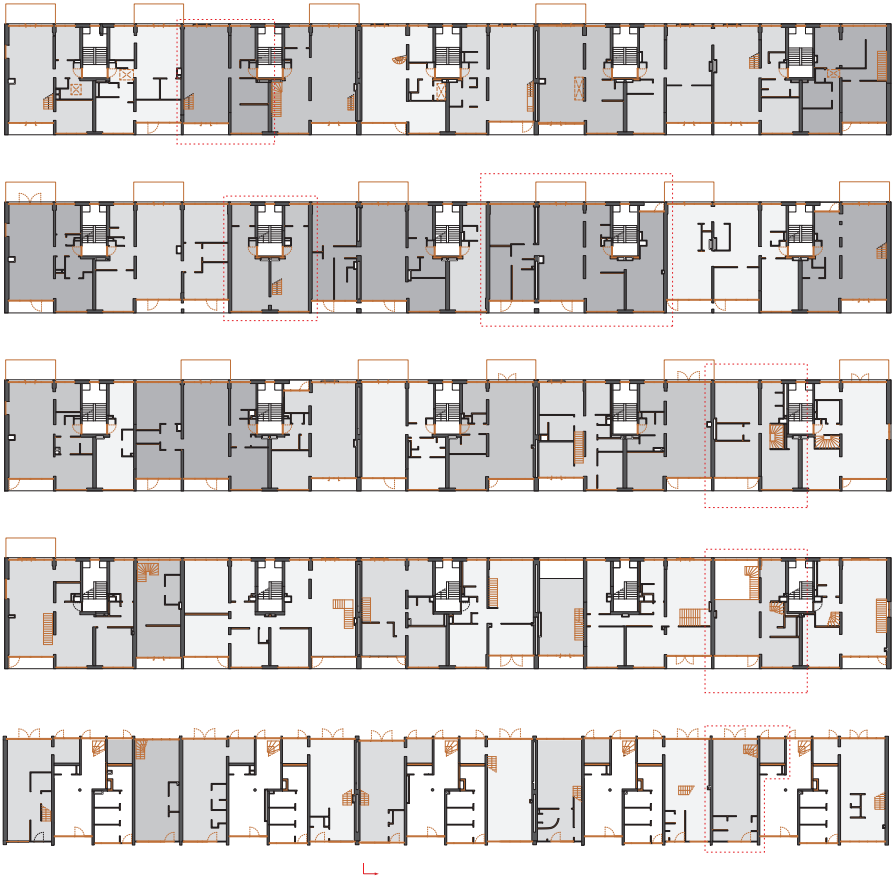
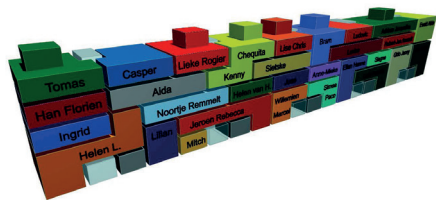
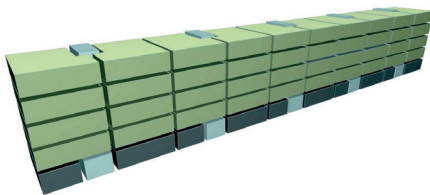


image 10. **Unique floorplans.** illustration from DASH: from dwelling to dwelling, 153

image 11. **Change in typologic division.** diagram by Vanschagen architecten



# THEORY

## SUBJECTIFICATION

*Rather than speak of the "subject", we should perhaps speak of components of subjectification, each working more or less on its own. This would lead us, necessarily, to re-examine the relation between concepts of the individual and subjectivity, and, above all, to make a clear distinction between the two.*  
 Guattari, 2000, p. 24–25

### t.5 Spatial subjectivity

Shifting our focus from the "subject" to "subjectification" means to think in terms of relations and interactions between people and their environment rather than treating people as end-products of a one-way society. Calling people subjects, or more contemporarily "target audience", might be fit for a despotic king or oligarch, but becomes derogatory in a society based on participation, as it takes away

Koch<sup>19</sup> investigates modes of subjectivity using Lefebvre's theory of social and abstract space and Guattari's Three Ecologies, specifically: "how the formation of subjectivities includes ways of relating to oneself, others, and the world, a set of relations that take on different, specific forms in different subjects." He argues that the processes of the neo-liberal economy is reliant on consuming-experiencing modes of subjectivity where, for a large part of the population, every situation is engaged with as a consumer, enforced by the exclusion of processes of production from the lived environment. A reconfiguration of architectural space can offer active, creative-productive (as opposed to consuming-experiencing) opportunities and answers on the open-ended question: "What should I do now?".

19. Koch, *On Architectural Space and Modes of Subjectivity*, 70-82

In relation to residential environments, the inclusion of amenities, production and other functions that have a public function such as schools or medical centers create relations between dwellers and the rest of the neighbourhood and the city at large.

Privacy and the ability to retreat, or the opposite, social control and unexpected encounters are influenced by spatial elements as well.

Take for example Bourdieu's analysis of the Kabyle house, a traditional Algerian rural farmhouse, where he shows how the organization of such a simple dwelling reflects the social dynamics of an Algerian household and the division of daily task between husband and wife.<sup>20</sup> The analysis shows the relations of the individual family members with themselves, each other and their direct environment.

20. Silverstein, *Of rooting and uprooting*, 553-578

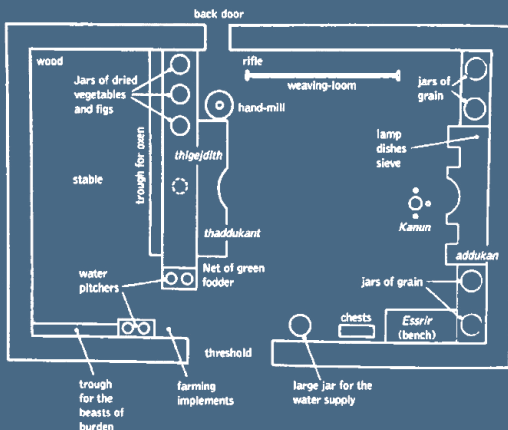
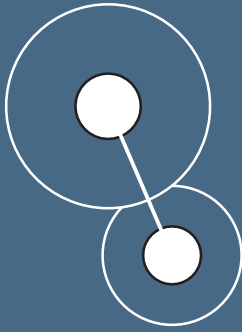


image 12. The Kabyle house. by Bourdieu



21. Krasny, *Architecture and Care*

## t.6 Architecture and care

Modernistically, the idea of architecture has been linked to autonomy and independancy, think of Corbusier's 'Machines à habiter', instead of connectedness, social reproduction and care.<sup>21</sup> Placing care at the center of architecture will contribute to shifting the role of architecture from creating valuable commodities to creating social environments. Taking social mix as a means to find common ground between the aforementioned group and people who are socially more able but might have needs elsewhere, like elderly who have a hard time doing household tasks or starters working 50 hours a week who have no time to cook or clean.

22. Klinenberg, *Going Solo*

As solo dwellers are increasing as a household type, so does the question of the importance of a local community become more and more pressing.<sup>22</sup> As an architect the issue becomes how to design a housing building or complex in such a way that it can facilitate the social needs of solo dwellers, especially those who need help.

23. Dias & Márcia, *Integration of Housing schemes*

Spatial configuration, according to Dias and Marcia<sup>23</sup>, has the biggest impact on social interaction between residents within a housing scheme, where accessibility to the city is the most important factor in systems of segregation. The location posed by the studio, Walenburghof in the neighbourhood of Blijdorp, is an ideal location for the implementation of a housing scheme focused on social interaction, reproduction and inclusion. Situated in the middle of the city with direct connections to the central station diminishes the need for cars. Combined with the possibility for local labour and employment possibilities, the site offers the opportunity to develop a housing complex that provides social sustainability on communal scale as well as on urban scale.

*"The principle specific to social ecology concerns the development of affective and pragmatic [investment] in human groups of differing sizes, [corresponding] to a specifically qualitative reorganization of primary subjectivity as it relates to mental ecology."*

Félix Guattari, *Three Ecologies*, p. 60

### Pragmatic implications

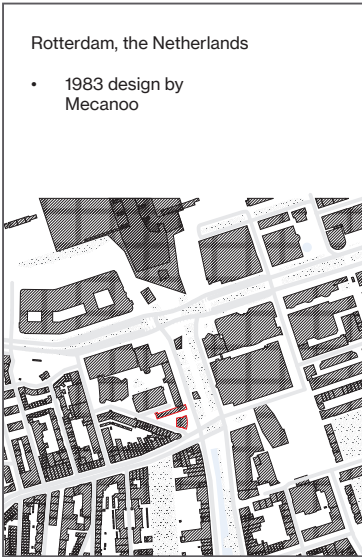
*How can productive functions be integrated into a residential environment to provide creative-productive opportunities?*

*Which public communal and public functions can aid in social reproduction and how can they be included in a residential complex?*

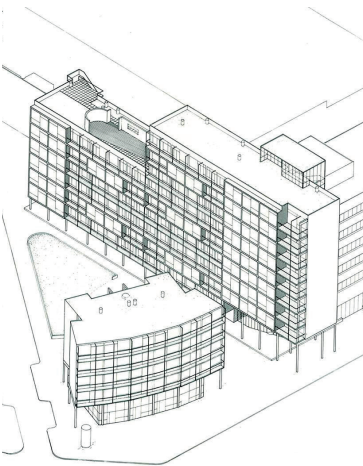
## CHAPTER 4

### CASE STUDY:

#### Kruisplein alternative housing



24. Döll, *Woningbouw Kruisplein*



### 4.1 Historic and urban context

Kruisplein lies in between the urban center of Rotterdam and one of the oldest neighbourhoods of the city. A couple hundred meters further lies the central train station. It is an exceptional location to build low-cost housing, but after a period where no housing at all was built in the center, a renewed interest in creating mixed work-living areas came as a reaction to the cold business-only inner city that would be deserted after 6pm.

At the same time there was the issue that housing was being designed mostly for families, an issue that still remains to this day. Already in the '80 in the Netherlands the problem was being raised that there are not enough dwellings for people living solo. As a response the municipality of Rotterdam started a design competition to encourage experimentation in the design of dwellings for solo dwellers, specifically students and starters. The brief was a housing complex meant for younger people with a difference in typologies based on preference of the residents in their willingness to share space. At first three categories were discerned by the jury:

- (X) purely solo living
- (Y) having their own living area, but willing to share dwelling services
- (Z) willing to share the living area as well

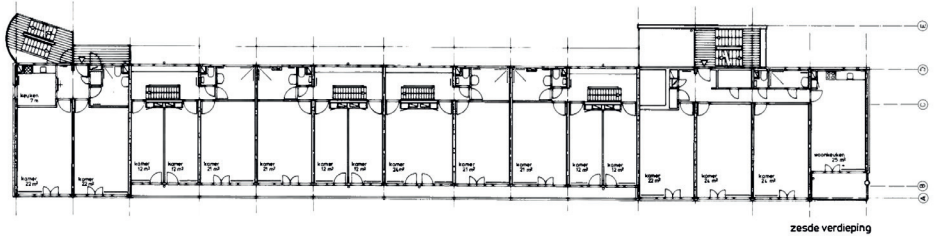
Additionally, the dwellings were to be adaptable in two ways: X, Y and Z should be convertible into each other and smaller and bigger dwellings should be combinable/dividable. In the second round of the competition, the requirements were adjusted and made more precise and financial feasibility became important. Type X got removed, leaving only the shared types.<sup>24</sup>

### 4.2 Morphology and typology

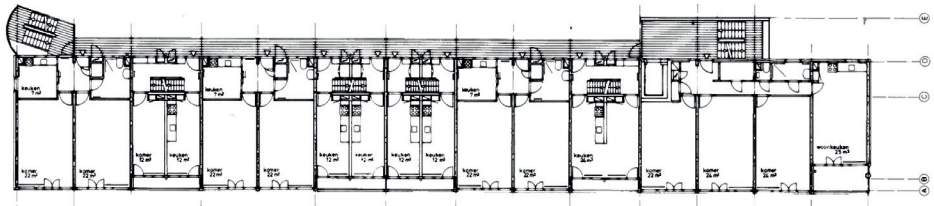
The team consisting of Henk Döll, Francine Houben and Roelf Steenhuis, who would later form Mecanoo, envisioned a design that consists of a slab-type building of ten stories oriented towards the south and a freestanding block of five stories, separating a small residential square from the busy Kruisplein square. In total the program adds 54 dwellings as well as 327m<sup>2</sup> of business space in the plinth of the freestanding block.

Its most prominent aspect is the reduced gallery access. Through internal stair the some of the dwellings span multiple floors, so that a gallery only has to access every two floors. Dwellings or the corners of the slab are accessible every floor as they have a direct connection to the stairwells, but are able to be combined also through adding an internal stair.

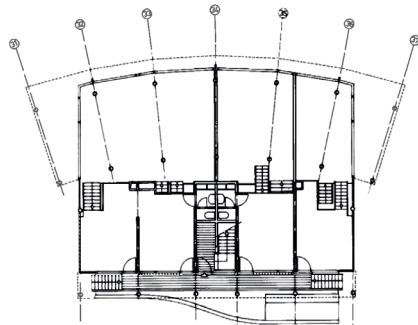
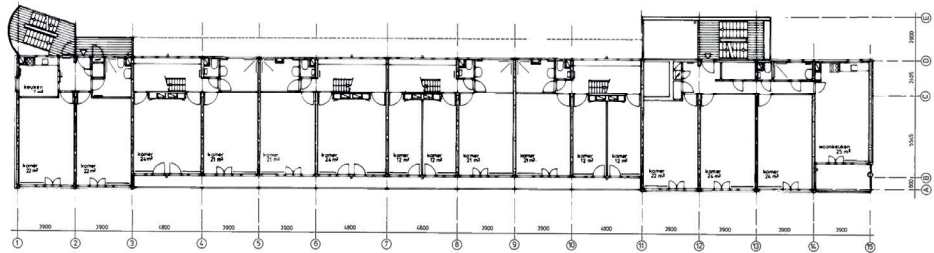
In the design phase, emphasis was put on the flexibility of the dwellings. Most apartments can be either divided or combined through the addition of an interior stair or



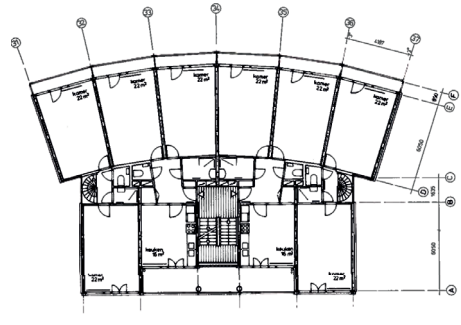
zesde verdieping



vijfde verdieping



entresol



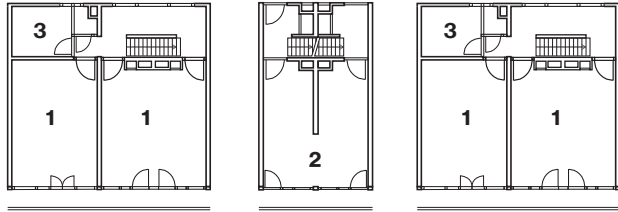
tweede, vierde verdieping

image 13. Dwelling typologies.

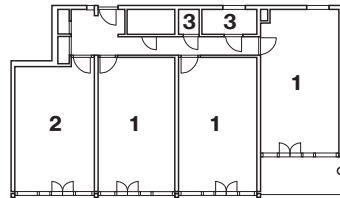
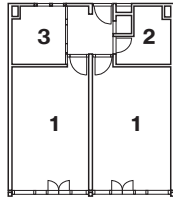
by group OZOO, edited

room: 1  
kitchen: 2  
bathroom: 3

**Type Z4 / 2xY2 (high-rise)**  
168 m<sup>2</sup>  
4-rooms

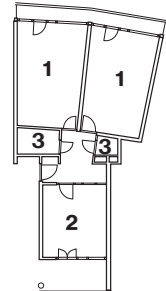
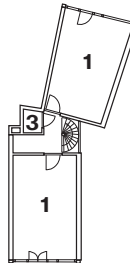
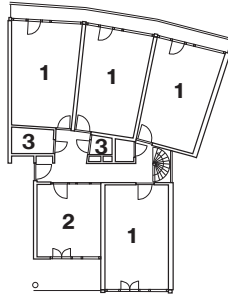


**left: Type Y2' (high-rise)**  
60 m<sup>2</sup>  
2-rooms





**right: Type Z3/Y6 (high-rise)**  
115 m<sup>2</sup>  
3-rooms

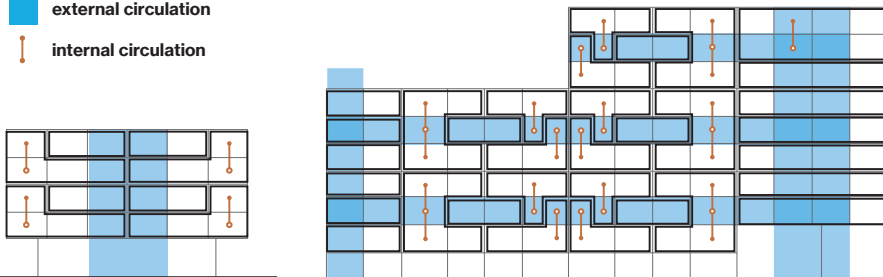
**left: Type Y6 (low-rise)**  
190 m<sup>2</sup>  
6-rooms



**right: Type Y2 (low-rise)**  
83 m<sup>2</sup>  
2-rooms

image 14. Circulation.  
own work

 external circulation  
 internal circulation





breaking through an allocated hole in the cast concrete walls.

The materiality of the complex is sober and cost-effective. Colored stucco accentuates the division in typologies and expresses where the galleries are situated at the opposite side of the building. The steel balustrades of the balconies has a different rhythm than the concrete structure of the dwellings, creating a dynamic that separates the continuous balconies from the facade. Combined with the addition of furniture, plants and other individual stuff by the residents

### 4.3 Spatial subjectivity

The reduced gallery space makes it so that there are more front doors to a single gallery, increasing the chance of an encounter with the neighbours.

The orientation of the slab block is faced towards the residential square, with the bathrooms, kitchen, entry hall and internal stairs placed at the side of the gallery. The portico block has a strong bi-directional character, with most of the rooms facing the busy Kruisplein and the shared kitchens and balcony facing the residential square.

Originally, the square was designed as a small public green space to create a more secluded space to be appropriated by the residents<sup>25</sup> of the new complex as well as the residents of the neighbourhood, but over time got incorporated by the business space as a terrace for the restaurant, making it more public. This invites the rest of the city into the complex, subjecting the residents to public life.

Dutch rules and regulations were limiting as they were aimed at traditional family type housing. Departments that checked the design on these regulations such as the fire department or the utility companies had no reference to make a verifiable decision. This obstacle is telling for the primary difficulties regarding flexible housing. Dutch social housing relies on regulations from the government, requiring specific typologic arrangements from dwellings based on tested, existing typologies, which are typologies for families and elderly. Experimentation and alteration in plans are held back by the strict subjectification to the government.

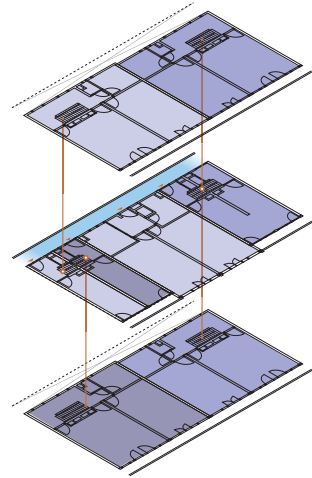


image 15. **Typologic configuration of Z4, Y2, Y2'**  
own work

25. Döll, Houben, & Steenhuis, *Plan Ozoo*.  
*Jongerenhuisvesting*, 38–45



image 16. **High-rise facade**  
own photo

26. Patijn, *Woningbouw*  
*Kruisplein, 3*

#### 4.4 Conclusion

Wytze Patijn, previously Dutch state architect and dean of the architecture faculty of Delft university of technology, stated in with regard to flexibility in housing that it is a means that specifically addresses diversity in the needs of the residents in relation to their household situation. "Simple adaptability with a minimum of constructive means is important for both ease of use as well as initial investments and following adaptation costs."<sup>26</sup>

In relation to the user group of the socially devious, who are widely different in their needs and social relations, this form of adaptability and collected living can prove a solution to effectively provide qualitative yet affordable housing. Having the choice between different levels of shared space will ensure that every person can be satisfied in their own needs for privacy, while reducing construction and rental cost through reducing the space required per person.

image 16. **Kruisplein-side facade**  
own photo

image 17. **Residential square.**  
own photo

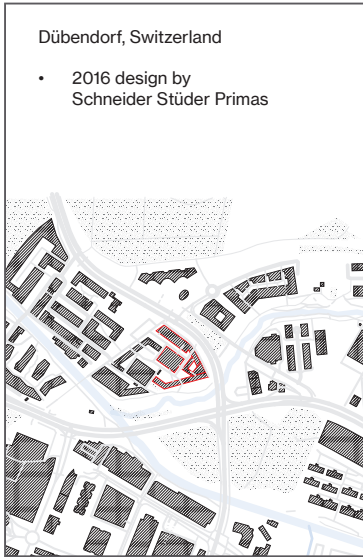




## CHAPTER 5

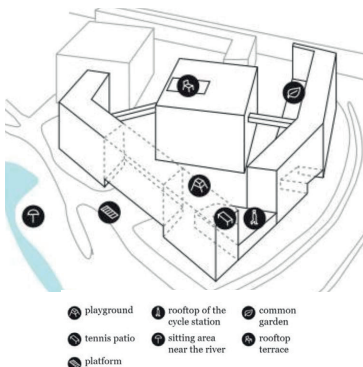
### CASE STUDY:

#### Zwicky Süd cooperative housing



27. Turturk, *Collective Form and Space*

fig. **Ground floor functions.**  
from: Siedlungsprojekt Zwicky Süd, Kraftwerk1 [https://www.kraftwerk1.ch/assets/downloads/publikationen/siedlungen/zwicky\\_arena/siedlungen/zwicky\\_arena/KWE784\\_Zwicky\\_Sued\\_03.pdf](https://www.kraftwerk1.ch/assets/downloads/publikationen/siedlungen/zwicky_arena/siedlungen/zwicky_arena/KWE784_Zwicky_Sued_03.pdf)



### 5.1 Historic and urban context

The dwelling complex of Zwicky Süd in Dübendorf, a satellite town near Zürich, is a recently built mixed residential area partly developed by the cooperative of Kraftwerk1, an organization that has high residential social and ecological standards and since their first project in 2001 has completed several other projects with these standards. The other parts of the complex is developed by two other parties with condominiums and affordable student housing. For these three parties the architects Schneider Stüder Primas design the complex of Zwicky Süd.

The plot is located between two busy roads and a railway. Consequently, the slab buildings function to isolate the noise generated by these heavy traffic arteries from the inner yard, resulting in 7 story high apartment buildings. Two large block volumes populate the inner area, filled with studio and cluster-type dwellings. The ground floor is mostly opened up to public and collective functions like a café, a hotel, the neighbourhood association as well as offices, further improving the collective social aspect of the complex.

### 5.2 Morphology and typology

The complex of Zwicky Süd belongs to the Siedlung typologies that were developed by modernists in Germany in the 1920s, based on the concept of the garden city by Ebenezer Howard.<sup>27</sup> The idea behind the Sienlungen was to promote a sense of collectivity through form and typology in the urban context, while ensuring a qualitative living environment. Famous examples are the Hufeisensiedlung and the Weißenstadt in Berlin.

Through a uniformity in the morphology and materiality of the Zwicky Siedlung, the architects tried to bring a sense of collectivity in the complex. However, different than the original idea of uniformity also in typologies, Kraftwerk1 decided that, in order to promote a social diversity, Zwicky Süd should host a variety of dwelling typologies as well. The freedom from developing for profit is that the cooperative can experiment with alternative residential concepts.

The slab building to the north contain mostly the 3.5 and 4.5 apartments, as well as a part of a big cluster apartment connected to the middle block by a bridge. Internal stairwells comprise the main circulation, which on the ground floor are connected to the commercial and collective spaces. The southern slab houses mostly the 2.5 room apartments, connected on two sides by a gallery on the outer face of the complex and a continuous balcony on the inner face, with stairwells also connected to the yard as well as collective interiors. The slabs buildings are a mere 8 meters wide, allowing plenty of sunlight into the dwellings, which is made advantage of by always opening the living rooms to two

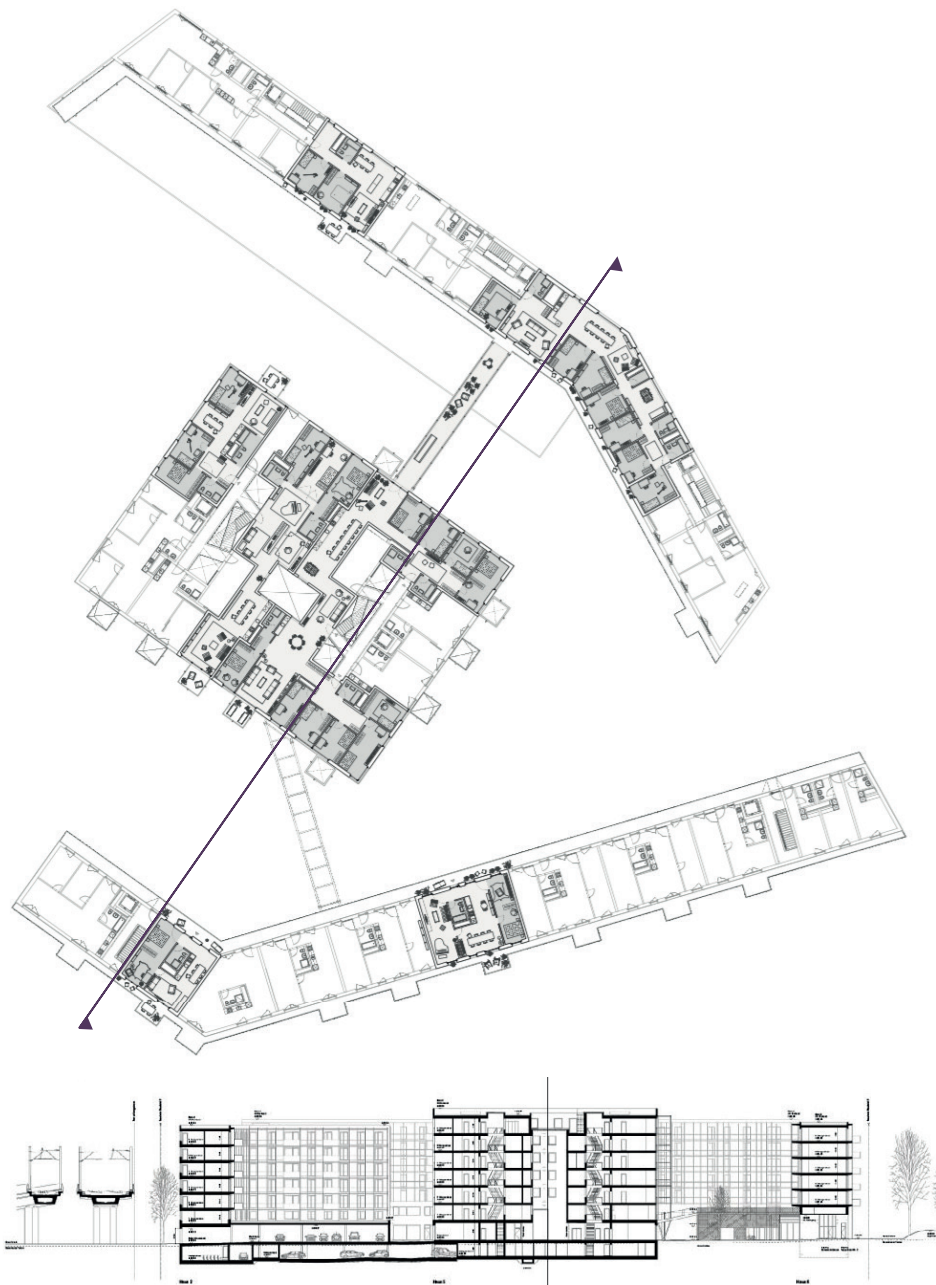
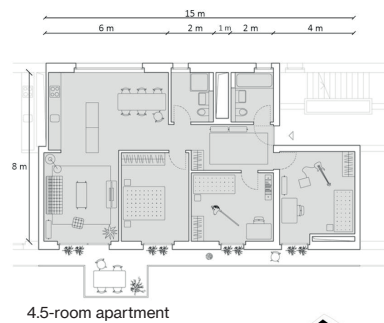
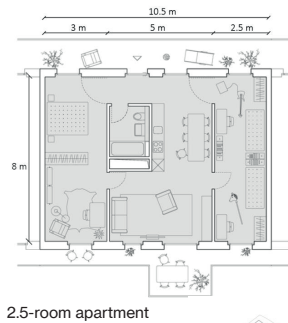
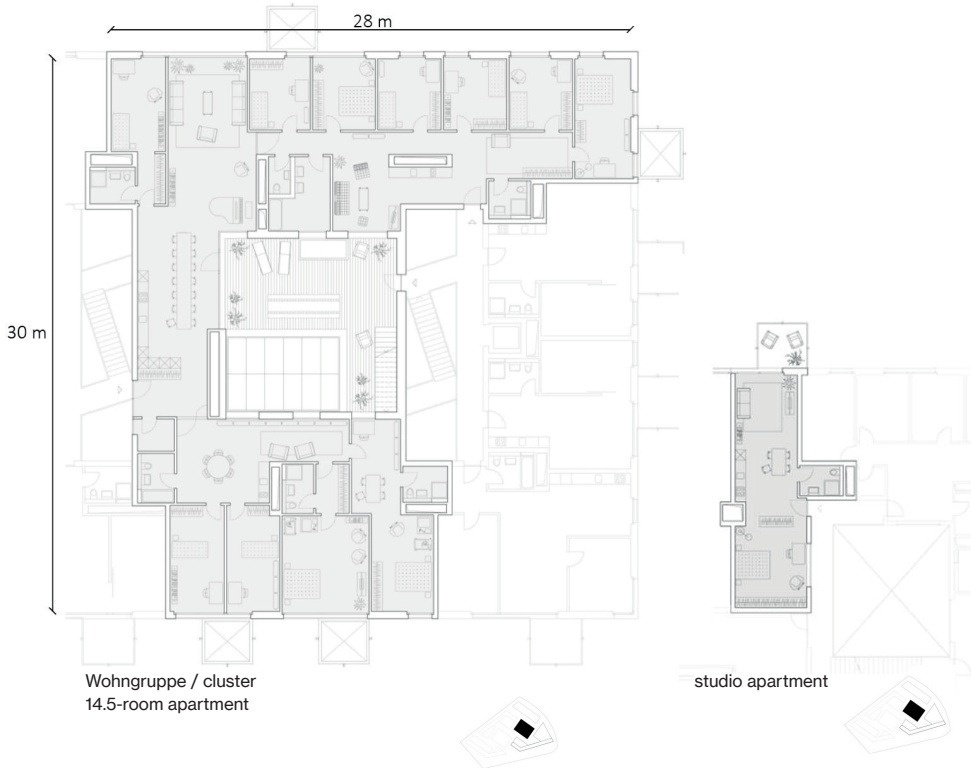


Image 18. 5th floor plan and section  
from: Zwicky Süd, Schneider Studer  
Primas <https://www.swiss-architects.com/de/schneider-studer-primas-zurich/project/zwicky-sud>



dwelling type	num.	≈m2	≈Σ m2
studio	11	50	550
2,5 apartment	32	55	1750
3,5 apartment	33	85	2800
4,5 apartment	33	120	3950
5,5-6,5 apartment	11	135	1490
WG / cluster	4	365	1450
rooms for rent	14	25	100
Σ apartments - 125			

image 19. Dwelling plans from: Zwicky Süd, Schneider Studer Primas <https://www.swiss-architects.com/de/schneider-studer-primas-zurich/project/zwicky-sud>

sides. This is especially noticeable in the southern slab where every room of the dwellings span the entire width of the slab. At the eastern end of this slab, guest rooms connected to the hotel are situated at every floor.

In the middle block of the complex, the biggest as well as the smallest types are situated, which are the cluster dwellings and the studios. Two voided stairwells give ample space for vertical circulation, ending up in a big entry hall also connected to the collective functions in the ground floor.

A bare and untreated materiality helped to save cost to achieve affordable housing for everyone. The light concrete and simple brightly colored steel structure create a sober and almost industrial environment, referring to the previous use of the site as a spinning mill for threads and yarn.

This productivity is a function that Kraftwerk1 wanted to integrate into this residential Siedlung to make the complex valuable not only for its own residents but also for the rest of the neighbourhood. The ground floor is therefore expanded into halls, the third formal building type. Productive functions such as offices shops and small manufactories as well as communal spaces like the neighbourhood association the ZwiBack café and an education room broaden the ecology of the complex.



### 5.3 Spatial subjectivity

This diversity promotes interaction between different household compositions and a social inclusion that spans multiple income groups and backgrounds. The uniformity of the materiality implies an equal footing of all the residents and through minimizing the construction cost ensures that people earning a low wage can also afford a spatially qualitative dwelling that fits their needs. This diversity means that the residents are subjected to others that don't necessarily share the same values, although to enter into the cooperative, you have to be accepted by the members of the cooperative. This seemingly contradictory approach asks the cooperative to have an open mind in its selection, as the selection process is essentially exclusionary.

While including a wide range of typologies for different household composition, a division has been made in the placement of them. Families are mostly situated in the northern slab, which is where the 3- and 4-room apartments are. Starters and elderly are drawn to the southern slab and students and people with an alternative mindset towards sharing dwelling space make use of the cluster dwellings and studios of the middle block. Organizationally, this decision makes a for a clear design, that helps in affordability by making the individual buildings more uniform. On the other side, I could argue that it creates tension within the complex by spatially placing one group opposite to the other. The hope is that the collective functions on



the ground floor connect the individual buildings. A couple of ground floor spaces have not been determined in their function in the design phase, but left for the residents to make use of them. This allows a parts of the complex to be appropriated collectively and asks of the residents a certain social engagement to come to an agreement of what to do with these spaces.

The cooperative has also stated that some dwellings should be dedicated to assisted living. This means that elderly, students, immigrants, medically challenged or anyone who needs help in order to sustain themselves, can rent an apartment with another person. This apartment is then suited in terms of privacy and sharedness.

*"We don't have to all be friends, but if everyone has some friends within the estate, it'll all work out beautifully."*

- Rita Zürcher, co-president of the Kraftwerk1 board  
<https://www.youtube.com/watch?v=1BYbfy2ncYw&t=218s>

## 5.4 Conclusion

The organizational model of cooperative investment as opposed to corporate investment provides more durable social opportunities. As the inhabitants of the space are also its owners and developers, there is more incentive to not only focus on profit but also on a qualitative social environment.

The question becomes if this model is operable with the concept of Housing First. Solid agreements would have to be made with the residents in the provision of dwellings for socially vulnerable people, which might be opposed because of prejudices towards these people. Mediators would be essential in the provision of information and representation of the socially vulnerable, similar to how HVO-Querido operates as mediator between their clients and social housing corporations in Amsterdam.



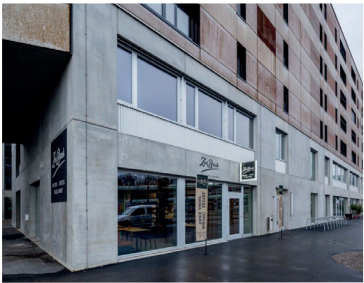




image 20. **Ground floor functions** from: Zwický Süd, Schneider Studer Primas <https://www.swiss-architects.com/de/schneider-studer-primas-zurich/project/zwický-sud>



Inner yard



ZwiBack Café

## THEORY PRODUCTION

*"The reconquest of a degree of creative autonomy in one particular domain encourages conquests in other domains - the catalyst for a gradual reforging and renewal of humanity's confidence in itself starting at the most miniscule level."*

Félix Guattari, *Three Ecologies*, p. 69

### t.7 Appropriation

In the words of Fraser and Jaeggi, *"There is widespread agreement that capitalism is (again) a problem and a worthy object of political and intellectual attention."*<sup>28</sup> I avoided using the term earlier in the rest of the text in order to prevent generalization of what the problems are and instead determine the characteristics and consequences of the problems. This research is nonetheless part of the discourse surrounding capitalism as a exploration into alternatives to capital centered systems architecturally and programmatically.

28. Fraser & Jaeggi, *Capitalism: a Conversation in Critical Theory*, 1-12

The various processes of capitalism implement a segmentation into the urban fabric in two kinds: social and functional segmentation<sup>29</sup>. This does not happen out of malevolence, but out of efficiency, it is simply more cost-effective to mass produce a residential area for a certain specific social group in terms of labour, planning and logistics. The result however is an exclusionary urban environment where the more affluent groups have better access to the urban services, creating better opportunities to develop themselves as opposed to less affluent groups who often just have the bare minimum of amenities to get by, thus increasing the gap between the poor and the rich. This is the main problem with the abstract space that Lefebvre characterized.

29. Muller, *Justus Möser and the Conservative Critique of Early Modern Capitalism*

In the production of social space, areas need to be free to be appropriated by social groups and individuals. In the production of one's environment, an identity can be created and more so exhibited to the rest of the world. These spaces could be considered threshold spaces, neither part of the dwelling nor part of the public space. Objects such as furniture and decorations function as signs in order to mark the existence of a dweller. Appropriation is therefore a valuable process in making a residential environment that is lively and connected to the culture if the inhabitants, able to combat the abstraction that mass produced housing delivers. Appropriation is part of a social production of space.

### t.8 Re-industrialization

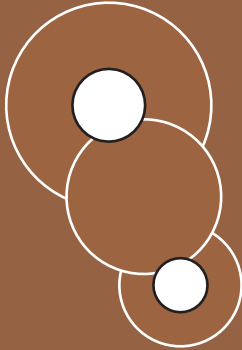
Separation between commodity production and social reproduction results in the disappearance of modes of production from everyday life. This disconnect causes an abstraction of the goods consumed, people don't consider what it takes to produce a certain product, the labour and material that is required to realize it.

In relation to material production, social reproduction and integration of socially devious people, re-industrialization is an approach to reconnect with the material and social processes that require the production of commodities.

It touches on the Marxist notion of control over the modes of production. Marx described the capitalist society as:

*"a society where the commodity-form is the universal form of the product of labour, hence the dominant social relation is the relation between men as possessors of commodities"*.<sup>30</sup>

30. Marx, *Das Kapital*, 152



31. Baker, *Conspicuous Production*, 117-126

32. Raworth, *Doughnut Economics*

33. Miles, *Whose Re-Industrialization?*, 69-79

During the industrialization period simple production was replaced by mass production as a more efficient means, but this means that the means to production now shifted from the hands of the workers to a few capitalists. Industry was moved to the outskirts of the city due to its pollution and wage labour replaced simple production.

Now industry is undergoing another revolution. The advent of industry 4.0 through automation<sup>31</sup> as well as the increasing material scarcity calls for a different approach in production. In 2017 Kate Raworth presented her book<sup>32</sup> on the possibility of a doughnut economy which not only advocates for a circular way of handling natural resources but also a strong social foundation in equity of work, self development and social participation.

The combination of manufacturing industry and residences could be an attempt to break with the capitalist separation of commodity consumption and production as well as the modernist ideal of separation of functions. Integration of the workspace, and thus the production of commodities and services that are created in those space, could be a way for the employees that operate in the creative processes to have more influence in the appropriation of their direct environment.

It is worth considering the value that grassroots re-industrialization has due to its lack of ties to existing bureaucratic or global capital.<sup>33</sup> Worker owned endeavors are able to provide much more tacit and pragmatic benefits to a local community, because these are inherently produced out of a necessity from out of this community. Furthermore, the people that run these small endeavors are part of the community they are situated in, allowing for direct, informal and personal feedback and social reproduction, something which is not possible with larger corporations.

### Pragmatic implications

*How can a space be designed so as to be able to be appropriated by its residents to be shown publicly with regard to mass housing?*

*What are the logistics of manufacturing workspaces and how does it combine with the rhythms of residential life?*

## CHAPTER 6

### ROTTERDAM & THE SITE



Buitenplaats Brienenoord  
Maurice Specht  
Superuse Studio



Heilige Boontjes  
Rodney van den Hengel



Werkplaats Buurman Rotterdam  
Laura Rosen Jacobson

### 6.1 Productive initiatives

The provision of labour is an important aspect of reintegration for people who have been out of the system for a while. It provides the person with a structured spending of their daytime. Involvement in a workplaces asks a certain responsibility of the person, to show up on time and dedicate time to a process that is not their own.

On an fringe island in the river Maas of Rotterdam lies the community center called Buitenplaats Brienenoord. It is a designed by Superuse studios based on circularity and re-use of materials. What is special about this project is that one of the initiators, Maurice Specht, included devious people in the construction who are distanced from the labour market due to a variety of causes such as burnout, autism or a criminal record. This way the realization of the Buitenplaats provided a social workspace where these people had the opportunity to gain working experience and show that they are able to cooperate in a working environment.

These social workspaces are needed as the regular job economy is exclusive, based on your age, background, sex, ethnicity and experience. Someone looking for work has to be able to show that they can participate, but if they cannot show that because of prejudice from employers, they are excluded.

The project of Buitenplaats Brienenoord has a great social impact, but the provision of a workplace ended when the building was completed. Similar concepts should be developed where working experience can be provided that does not require the continuous invention of new projects but a circular way of integrative workspaces.

Employees of the café Heilige Boontjes mention the incredible mental effect of "doing something useful". Heilige Boontjes is a bottom-up initiative in Rotterdam that employs problematic youth who have a troubled past with regards to the law and their personal life. They need extra attention and care in order to keep from destroying themselves and Heilige Boontjes is a place where such care can be provided, by asking a certain responsibility of the these devious youth and taking their actions seriously.

Werkplaats Buurman provides a woodworking space and sells re-used wood for a low price. They will source wood that has been leftover and otherwise burnt as waste to be used in projects of people participating in the workshop. They have programs to teach people how to handle wood and manufacture something useful or beautiful or both, adding an educative element to their service.





### 6.3 Blijdorp neighbourhood

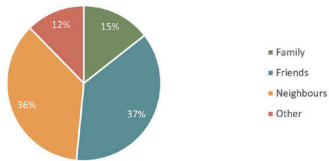
Situated in between Central Station and Blijdorp zoo other is Walenburghof, which is the project location. The Statenweg, which is the main road connecting Rotterdam South to North through the Maastunnel, enters Blijdorp at our site. Walenburghof is also located right next to the train tracks.

35. Van Eijk, *Unequal Networks*

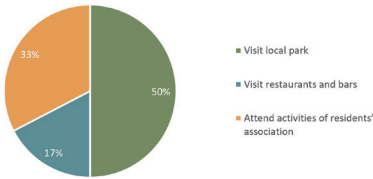
According to the book *Unequal Networks*<sup>35</sup>, residents in Blijdorp have an overall high income and very high percentage of native Dutch background. They tend to know people in the area before moving in and are attracted mostly to the quality of the neighborhood and the dwellings, and spent most of their visit in the area inside local parks.

In 1931, a masterplan was proposed for Blijdorp. A part of the proposal was to create a neighborhood center for Blijdorp in the crossway. However, this plan was never completely realized. What is realized, are only the main structure and the Vroesenpark. Vroesenpark is a well-known park among the residents.

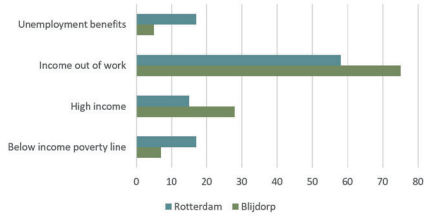
Composition of local network, by residential category



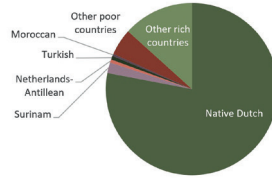
Neighborhood Use



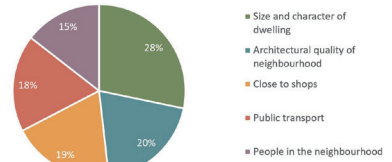
Socioeconomic Status



Ethnic composition of the neighbourhoods



Top-5 Reasons for Moving to Blijdorp



Ethnic Group

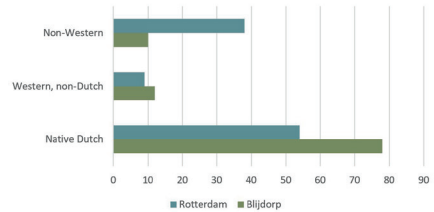
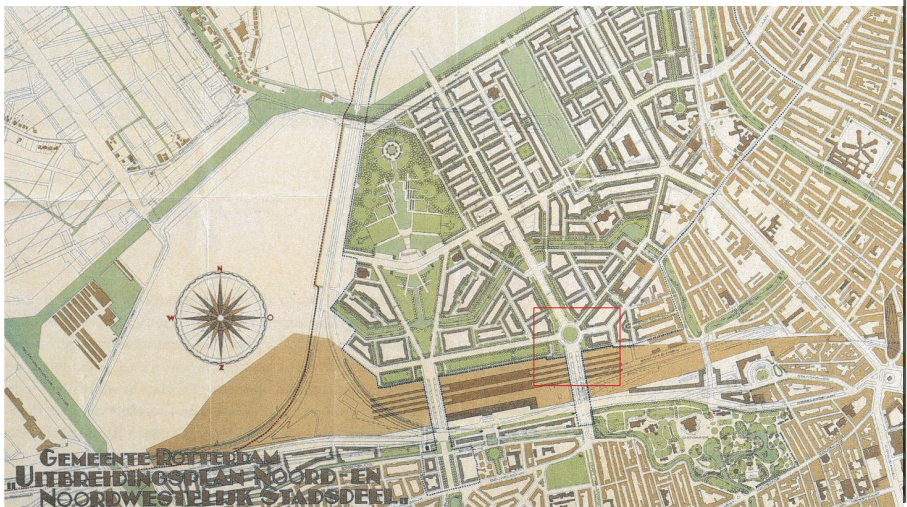


image 22. Neighbourhood demographics from Van Eijk, *Unequal Networks*

image 23. Blijdorp expansion 1930, plan Witteveen & Kromhout from Noor, Witteveen & Rotterdam



**7.1 Urban masterplan**

Walenburghof has been a fringe space since the development of Blijdorp. The buildings on site are too big for their environment. An unbalanced scale and undefined urban fabric make the public areas not pleasant to be in. The site is split in two by the main road that crosses the site.

In addition, this wide street consists of fast traffic and is spread over a large wide area. On the edge of our site we have the problem of the sound of trains. At the edges, nothing but cars are parked, giving the site a strong backside where nothing happens. The students of the many high-schools and colleges mostly stand in front of their school entrances during their lunch break. Their outdoor space area is undefined, and most of the times it is exposed to the traffic.

The new urban plan aims for a better social environment not only for its residents but also for the neighbourhood. The schools that were scattered around the site now have their own campus, making space for a walkable residential area, while integrating most of its existing buildings. The crossroads that once was to be a center of Blijdorp gets a new, more public face.

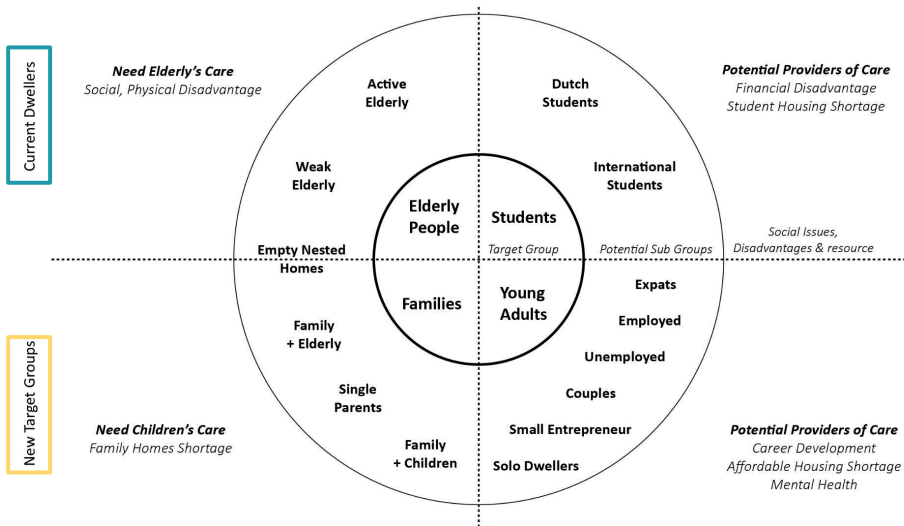
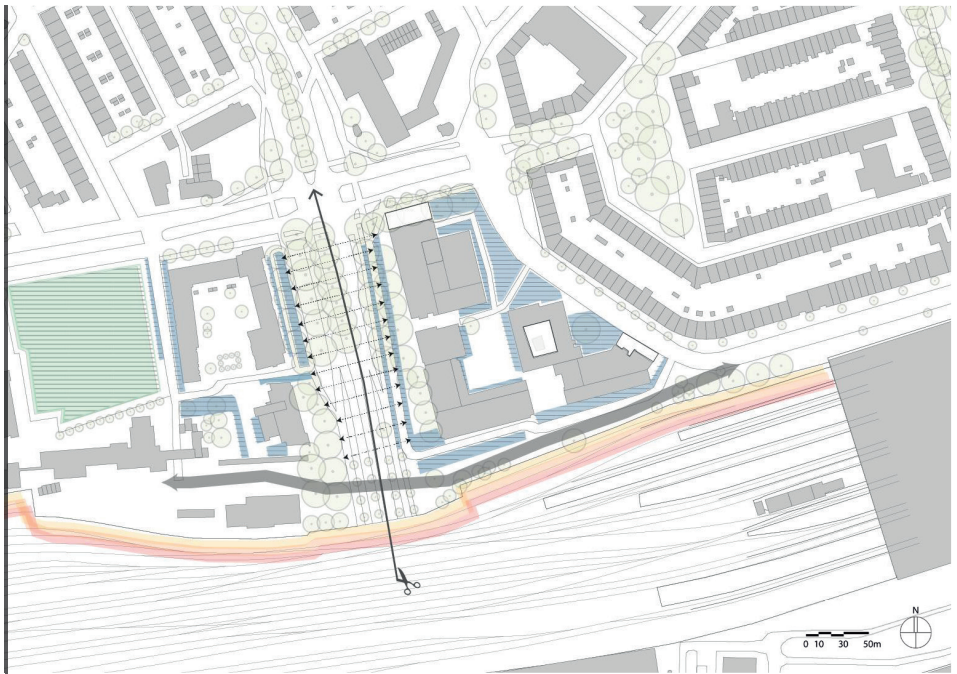


image 24. User focus urban masterplan from P1 presentation





**Legend**








-  Site splitted in two
-  Wide fast traffic street
-  Train track noise
-  backside
-  Street parking
-  Unpleasant green
-  Undefined student outdoor spaces

image 25. **Problem map**  
from P1 presentation

The 4 different ambitions, which are defining the urban fabric, making a neighbourhood center, improving healthy living and incentivizing social sustainability, are further defined into principals and spatial strategies, as shown in figure ?.

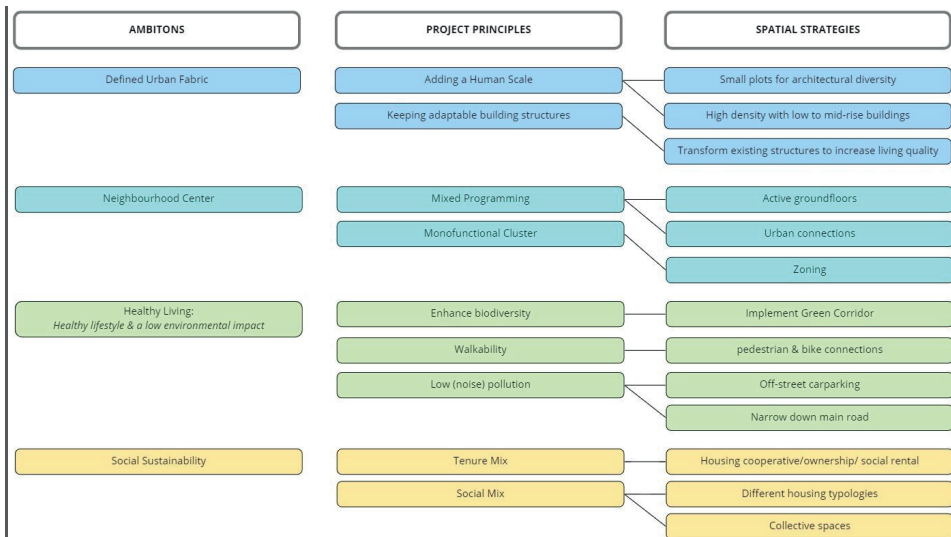


image 26. **Urban masterplan ambitions** from P1 presentation

The current scale of the site does not match these ambitions. So the first thing that was defined is the continuation of the surrounding urban fabric. Little streets and courtyards adds a more human scale to the site. Three buildings are kept that have adaptable building structures to keep part of the urban identity to achieve urban recognition and social sustainability.

The center of Blijdorp that was once imagined is brought back. A lively crossroads of commercial space and workplaces places the site in a larger context of the neighbourhood and the city. West of the plot becomes a campus area where the schools have outdoor space that is lacking now, reducing their intrusion into the residential areas.

The walkability of the urban fabric needs improvement, reducing various forms of pollution from the roads and rails and enhancing the biodiversity. This way we make an area for healthy living, both for humans and non-humans. To create also a social sustainability in the area, each block will have a mixture of tenure types and user groups. Differentiated typologies and collective spaces make for a vibrant and interactive neighbourhood.

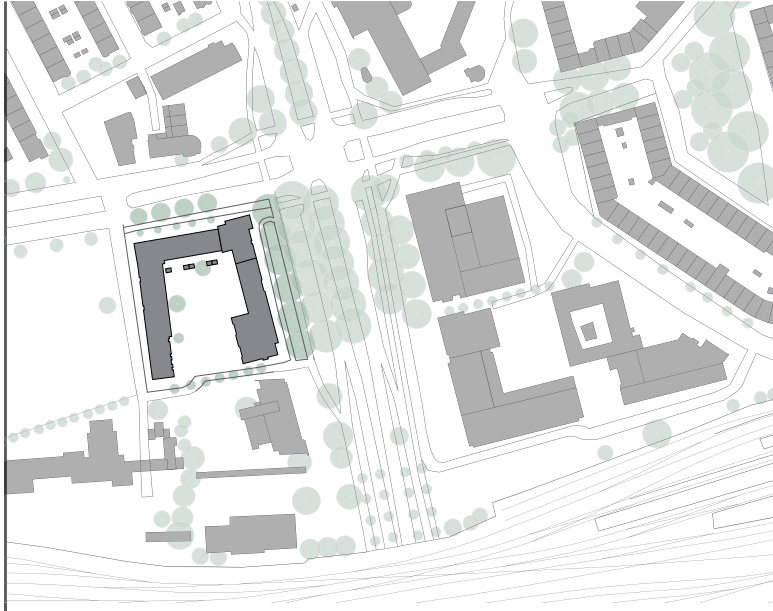


image 27. **Existing urban plan**  
from P2 presentation

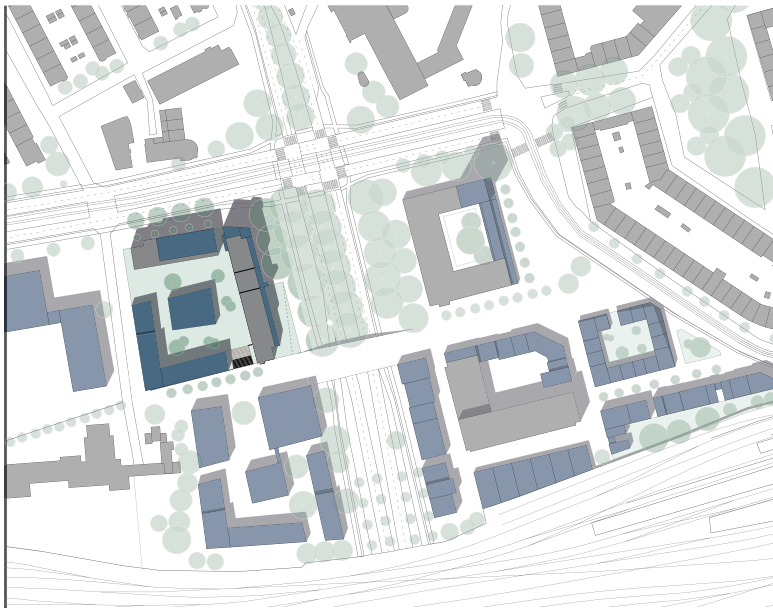


image 28. **New urban plan**  
from P2 presentation

# Urban situation

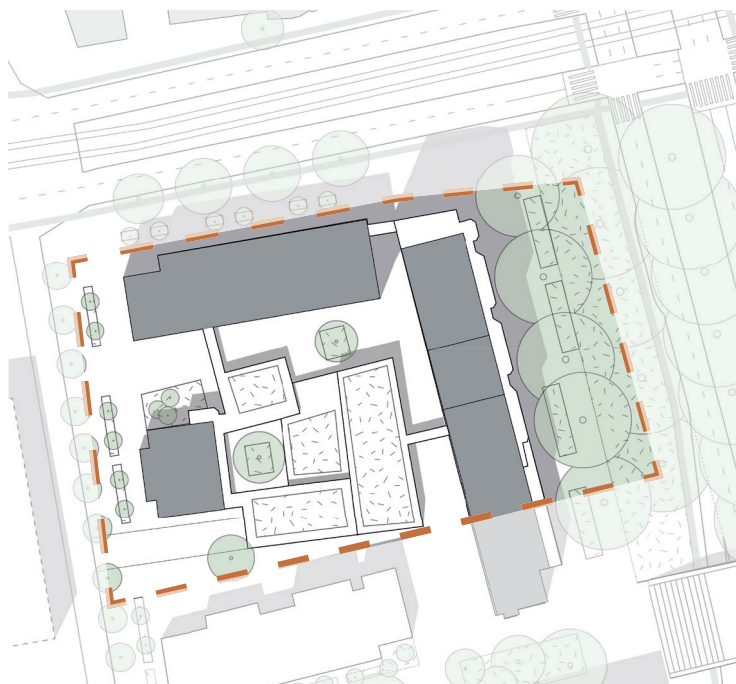
## Masterplan



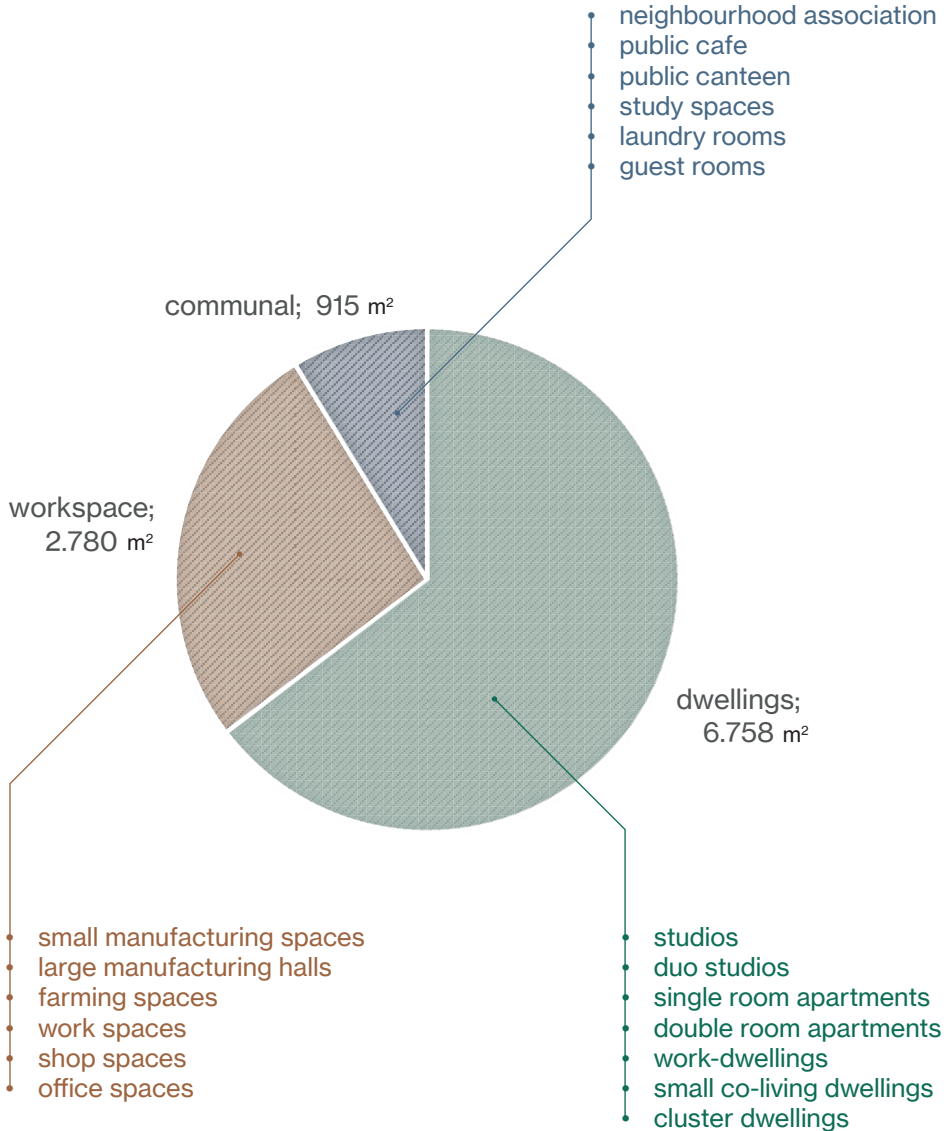
**Brief**  
Program

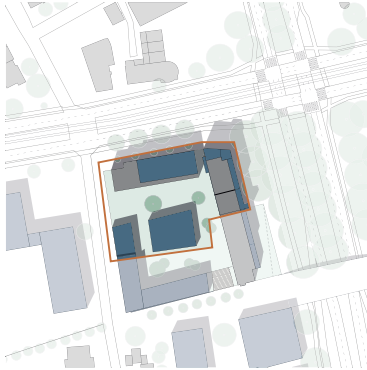
Total GFA:  
**10453 m<sup>2</sup>**

FSI:  
**1,5**



An extensive program adds depth and diversity to the site, making it a destination for a variety of different persons. Not just residences and small workspaces, but also manufacturing spaces, a cafe, a canteen, shops and a garage liven up the place.





## 7.2 Design concept

This project is the development of the northern half of this block, marked by the orange line, which is done by a social housing corporation, while the southern part would provide the finance needed through the private market.

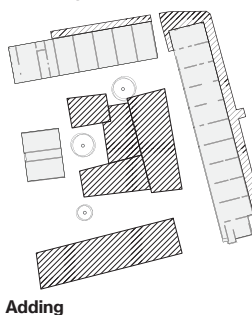
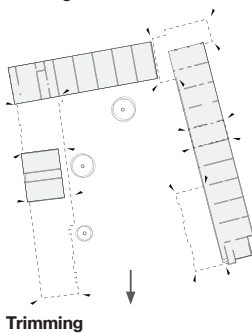
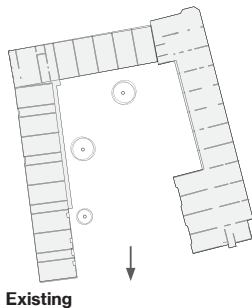
The existing structure is to be altered in such a way that most of the concrete doesn't have to be demolished, trimming only where necessary. The additions of a new corner to meet the public crossroads, new galleries on the outside of the block, a newly built residential block on the south to finish the courtyard as well as a collection of halls in the middle that has an interactive public function. Three existing trees on site can be maintained in this way.

On the ground floor are the spaces of production. Along the outside are work-dwelling units. Facing the campus is a study or co-working space and in the middle large workshops for manufacturing processes. On the roof of these halls there is the possibility for food production.

The spaces of community are in the center and the corners of the complex. In the middle is the neighbourhood association, a place for any form of contact with the residents, businesses institutions and corporations. Bordering is an affordable cantine, using on-site food production. A cafe on the corner connects the public crossroads to the more private courtyard. The café has three levels and connects with the gallery space on the second floor. On the upper levels inside the building there is space for functions as laundry or joker rooms and on the corner on the first floor is a doctors office.

Leaning on the example of Kruisplein, the galleries are every other floor. On the second floor a circuit with bridges connects all the vertical circulation. To the central vertical shaft a large bicycle storage and a small underground parking garage are situated. The main elevator looks out both over the courtyard as well as the crossroads.

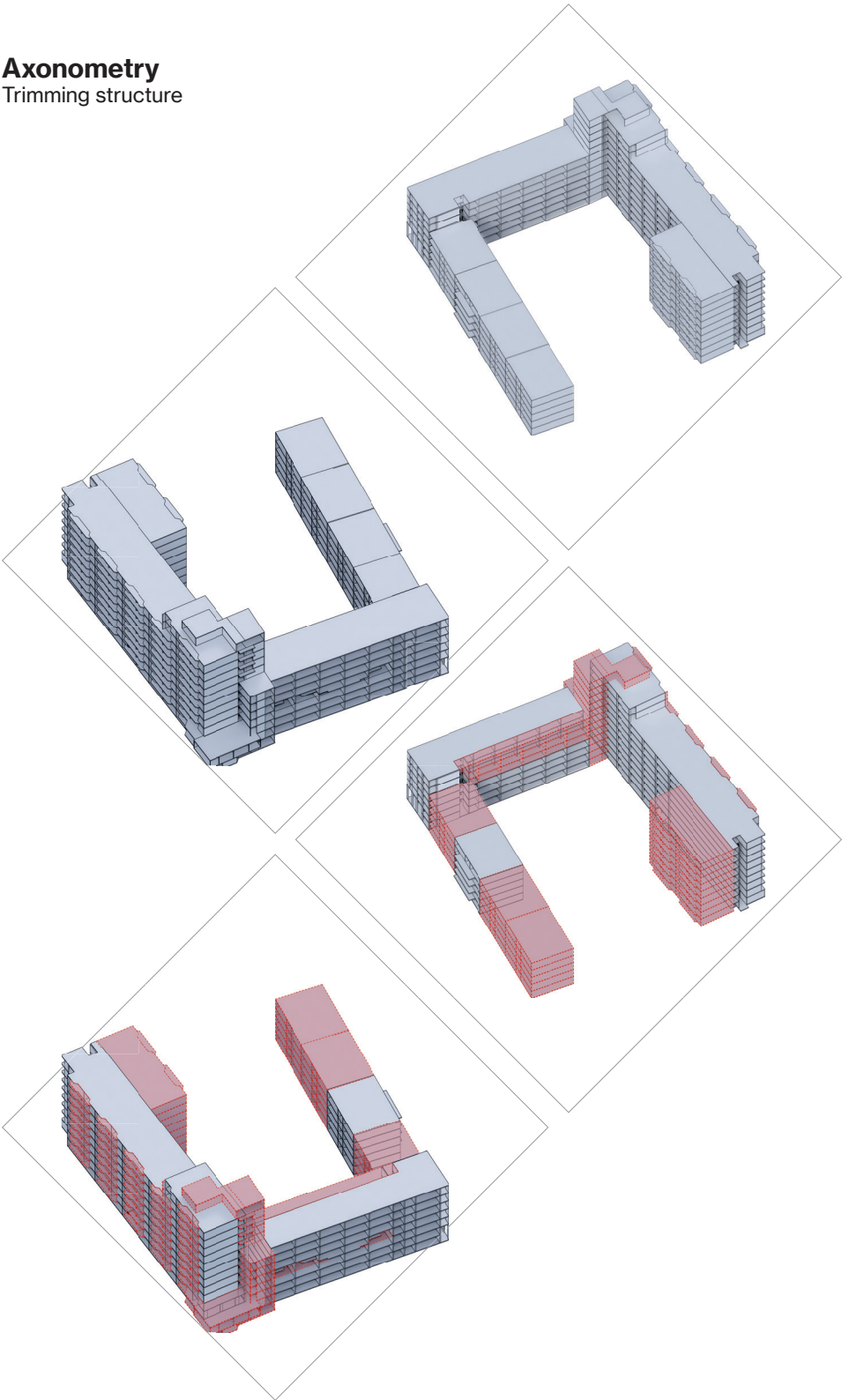
There are six types of dwellings, but combinations or divisions are possible. The 6,6 m tunnel-grid structure of the existing buildings allow for smaller studios as well as bigger duplexes through internal or external stairs placed in such a way so that there only has to be a gallery every other floor. The corner and freestanding block have space for co-living units, which can be divided as desired. The work-dwelling unit has its dwelling on the first floor connected to the ground floor workspace. In facing are loggias which were transformed from the former galleries.





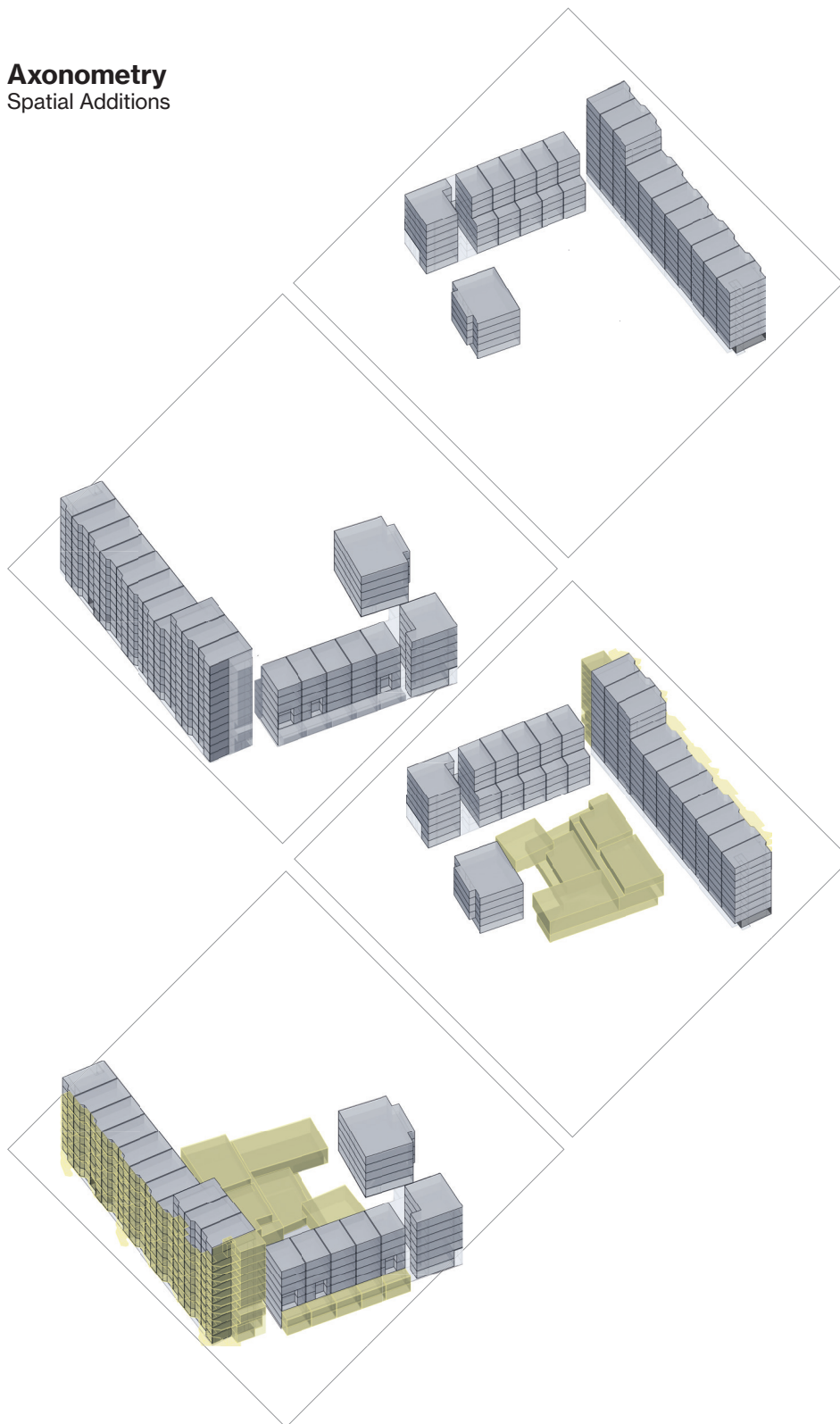


**Axonometry**  
Trimming structure



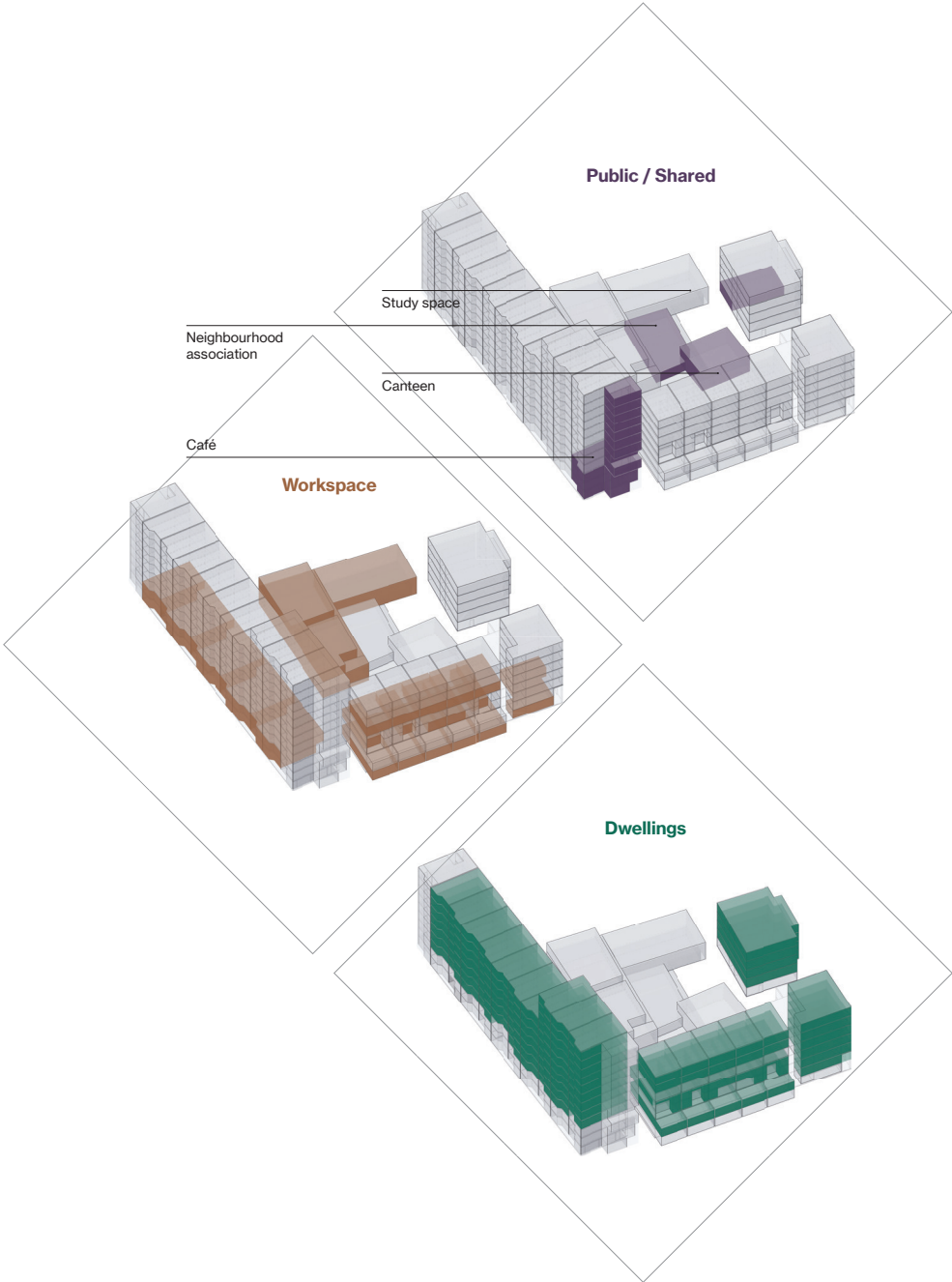
# Axonometry

## Spatial Additions



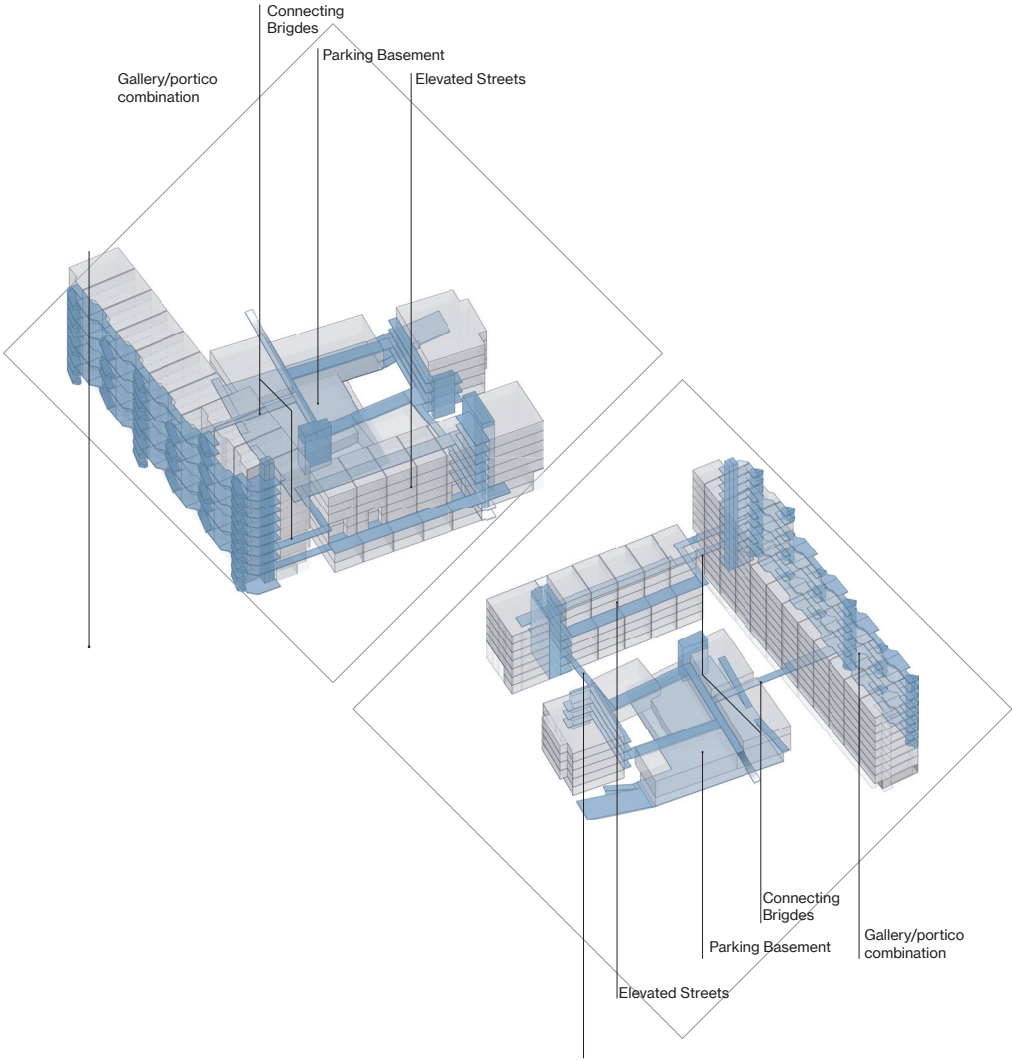
# Axonometry

## Functions



# Axonometry

## Circulation



### 7.3 Graphic narrative

Lastly, the addition of storytelling in the form of a graphic novel brings a level of imagination that can not be achieved through text and diagrams. It forces the research to delve into fine spatial and behavioural details, which are necessary to keep from generalizing the user group. The graphic novel can be seen as an extension to the praxeological research in the interaction between individuals and structures.

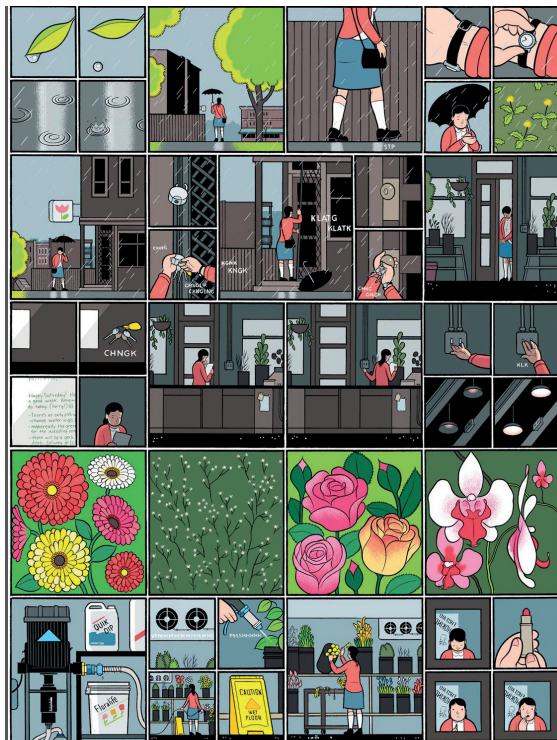
36. Haraway, *Getting with the Trouble*

37. Ware, *Building Stories*

I am inspired by Donna Haraway<sup>36</sup> and her insistence on the importance of stories. The style of comic artist Chris Ware<sup>37</sup> is inspiring with regard to his attention to practical detail and human interaction.

Combining all the concepts that are explored in the previous chapters, inclusion of socially devious, re-use of existing material and social structures, diversification of dwellings and integration of industrial processes can be given a spatial setting. Input of personal experiences that I received through interviews

image 29. Detailed experience depiction from Ware, *Building Stories*





## THE RIGHT TO A SECOND CHANCE

"It might rain soon.", Bob was thinking. "Hey Rouel!", he called out, "Let's get going yeah? If we don't hurry we might not get a place tonight." They were just about done with their mindless job of collecting little bits of trash off the street and were headed towards the homeless center where they were hoping to get a bed for the night. Bob hated it, the humiliating work, the stinking beds, no privacy, but was in no mood to sleep under that bridge again, not since what happened last time. "Yeah, I just need to get... Let me... I'll be right back!", Rouel struggled to answer. He was already halfway drunk and in dire need of booze. "They're not gonna let you in if you bring a bottle you know." "I'll hide it, they'll never know." Bob sighed, they both knew it wasn't gonna work. "I'm not gonna wait for you.", but Rouel was already gone. The temptation weighed heavy, with the money he got from the bit of work done, he had some spare coins to buy some cans and still be able to





pay for the homeless shelter. But he knew that once he starts drinking, there would be no stopping, especially with Rouel around.

Firmly he started walking, paying no attention to the stores and the bars. Finally he made it to the homeless shelter. "Hi Marna, do you have a bed and some food for me.", he said to the receptionist. "Of course dear, I held a spot open just for you." "Marna you're an absolute trooper," he said. Her arms full of tattoos and merrily obese, Marna smiled as she took the fee required. "There is pea soup and rye bread today, thick and warm."



The next morning Bob wake up to the coughing of his neighbour from the bed next to him. When he goes downstairs for breakfast he sees Valerie waiting for him. "Ah Bob, I heard you were checked in here." Valerie is his coach. She helps him when he's gone too far again. "I wonder why she is here", he thought. "Come let's take a walk" Valerie urged.

"I need your help with something," she said as they walked over the Hofplein. "Of course you do", Bob thought, "Nothing like cheap labour eh?" But he was in no position to refuse, he still owed her. "Yeah I need you to move some stuff into an apartment for a client of mine. Don't worry about your payment." They passed the central station. "Where are we going?" Bob demanded. "Next to the Statenweg a block has been renovated with new apartments." "Another part of the city gentrified. My old home in Crooswijk no longer exists as well." He scoffed, "There is no place anymore in the city for us



people. It's clear they just want to spit us out." Valerie kept quiet.

As they arrived the complex seemed kind of standalone, fairly big in proportion to the rest of the surroundings, apart from the new highrise across the Statenweg. What struck him as odd was the workplaces in the middle of the dwellings. There was a busyness, a certain air of industriousness. Sounds of metal, smells of sawed wood and tar, who would live here?

It wasn't much furniture that needed to be moved. Cheap stuff, Bob thought, I wonder who it is that is going to live here. When he heaved the last box into the elevator, Valerie called to him. "Bob come over here, I have something for you." "Is it about my payment?" "You could say that", she said as she handed him a key. "What is this?" "We've found a house you Bob. The furniture you moved? Consider it yours. A place to call your home. You'll rent it from us, for now, until you prove that you can keep it. After that, you will rent it independantly, you can do whatever you want." Bob was dumbfounded. So long has he lived on the streets. It was hard to believe. The cheap stuff didn't seem so cheap anymore. The workshop noises now expressed a

comforting liveliness instead of disturbance.

However, the first weeks were difficult. The silence at night is almost deafening, after so many years on the busy streets and the homeless centers where there are always sounds. Loneliness is eating away at his sanity. Valerie asked him not to go looking for his old pals as they might tempt him to go drinking again. Restlessly Bob tigers through his apartment, unable to cope with his thoughts, his temptations, until he breaks. He cries out.

After he while a knock on the door makes him jump. A soft voice murmured something but he could not make out what. He gathered himself and opened the door.

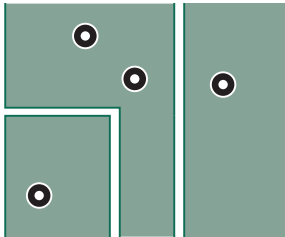
"Hi, Oscar is the name." A thin old man offered a handshake in anticipation. "You're new here right? I couldn't sleep and noticed you're awake too", he said with a halfway grin. "We can still enter the café downstairs, being residents and all. I promise you that you wont beat me in poker." Bob, although wary, calmed down. The unexpected friendliness made him forget his troubles.



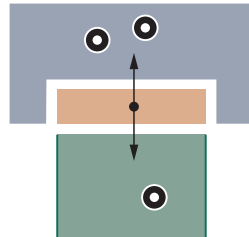
**8.1 Design principles**

The combination of theory and case studies give a holistic overview of the possibilities and solutions in the housing of socially devious people with regards to transformation of existing mass produced housing. Based on the conclusions of each chapter, 6 conceptual design principles are distinguished to use as a basis or point of departure in a design process. The idea is that these principles are generally applicable, while the pragmatic application, addressed through the questions resulting from the theory parts, can only be answered with the specifics of the unique context of a design in mind. These pragmatic implications are subjective to the social processes of a site.

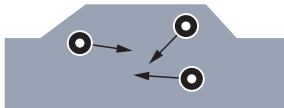
**dwelling differentiation**



**appropriability**



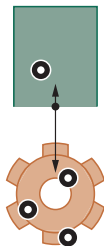
**circulation as space of encounter**



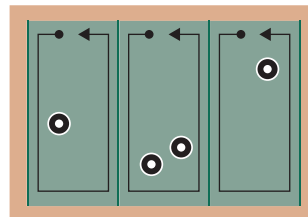
**multi-directionality of dwellings**



**interaction with simple production**



**social and material re-use**



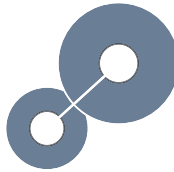
## Pragmatic implications



**INTEGRATION**

*What organizational methods can be used to include devious people into a new social environment and how does it take into account the user's needs?*

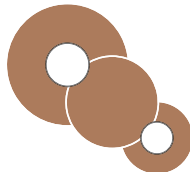
*How can existing post-war building structures be re-used in a socially differentiated and material sustainable way?*



**SUBJECTIFICATION**

*How can productive functions be integrated into a residential environment to provide creative-productive opportunities while considering pollutive effects of industry?*

*Which public communal and public functions can aid in the forming of new social relationships and how can they be included in a residential complex?*



**PRODUCTION**

*How can a space be designed so as to be able to be appropriated by its residents to be shown publicly with regard to mass housing?*

*Which public communal and public functions can aid in social reproduction and how can they be included in a residential complex?*

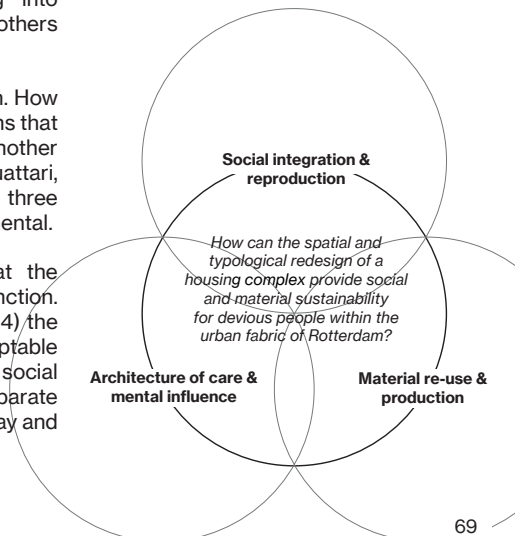
*What are the logistics of workspaces and how do they relate with the rhythms of re*

## 8.2 Conclusion

How can you design a dwelling while taking into consideration how the dweller relates to oneself, the others and the environment?

This is the question that was central to the research. How do I as an architect understand the spatial implications that a design has on the ecology of a place?, to frame it another way. To think in a transversal way, according to Guattari, means to understand the relations between the three ecological registers, the mental, social and environmental.

The analysis of the case studies was aimed at the relation between morphology, typology and function. How for example in the case of Kruisplein (chapter 4) the configuration of the galleries, the shared and adaptable dwelling typologies, translation into the facade and social encounter all play into one another. They are separate concepts but work as a whole. Take one concept away and the ecosystem falls apart.



*Now more than ever, nature cannot be separated from culture; in order to comprehend the interactions between ecosystems, the mechanosphere and the social and individual Universes of reference, we must learn to think 'transversally'.*

Félix Guattari, Three Ecologies, p. 69

Thinking transversally means being able to shift between form and function, experience and influence, climate and material, context and reference. To see the relation between the scales of the global, urban, neighbourhood and residence, direct and indirect. Tacit knowledge and subjectivity, outlawed in modern rational thinking, become ways to quickly being able make these links without explicitly determining every implication, although it has to be said that sufficient experience and a vast library of references are necessary to rely on this kind of thinking.

You might conclude that everything becomes derivative, that there is no room for innovation and new ideas. While that may be true to a certain point when you base all design decisions on the mental, social and environmental context, the combination of contextual and referential elements often result in new multiplicities.

What an exiting prospect! As an architect-to-be I am looking forward to discovering new and creative solution in an ever changing world.

### **8.3 Discussion / reflection**

What's left undiscussed are the aspects that are associated traditionally with ecosystems, namely climate and the natural environment. While very important to take into account in the design of any building, it is left mostly out of the discourse this report presents. To prevent the report from becoming too broad and lose its focus, I decided to keep the subjects in relation to social and mental ecologies.

The subject of re-use and inclusion of commodity production in a residential environment begs however for a material flows analyses.

The case study analyses have been left fairly superficial as I have only been able to visit the Kruisplein student housing. To get a more substantial insight in the ecology of the place, site visits and resident interviews would have added a layer of detail that looks at the interactions and experiences that take place in the complexes. As a result, the 'spatial subjectification' paragraph of the case studies remains mostly speculation.

I must say that the pragmatic implications are fairly arbitrary. The specifics of a design are obviously much more complex than six questions can contain. Therefore, these questions are just examples meant to bridge the gap between theory and practice, albeit meagerly.

In addition, the whole conclusion of this report remains fairly implicit. There are so many elements to this whole design and research process that it is hard to conclude it all into something graspable or manageable.

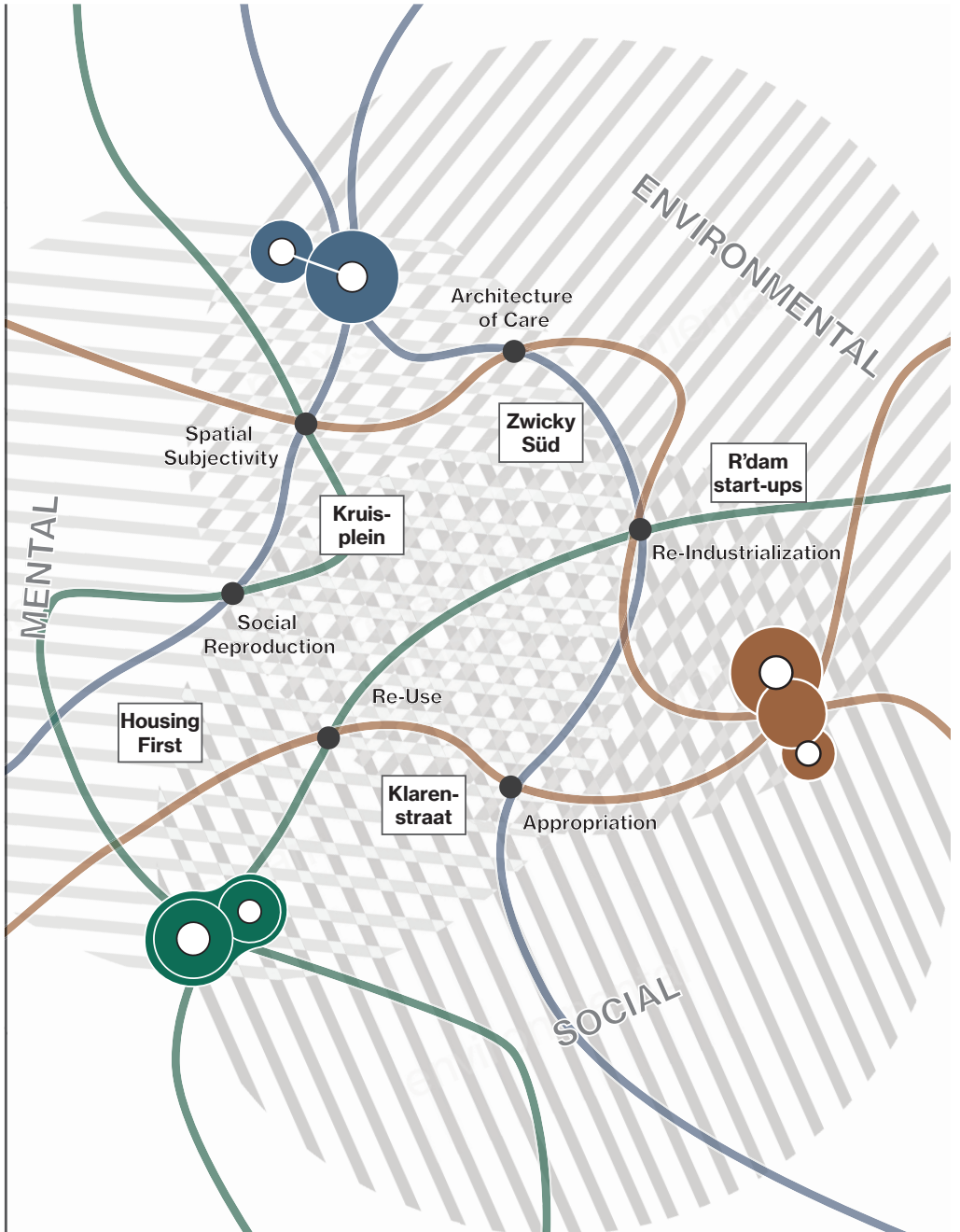


image 30. Research report map  
own work

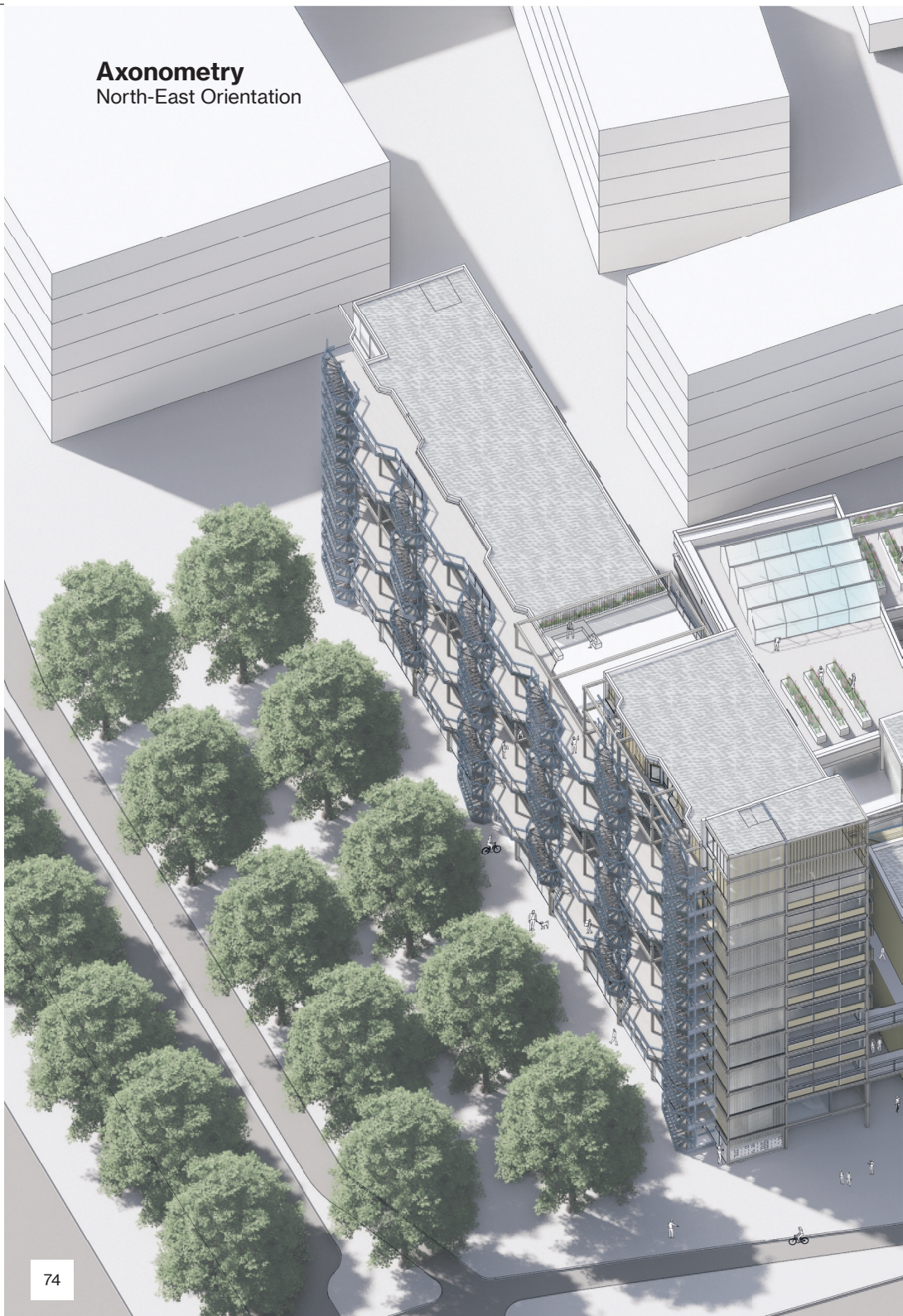


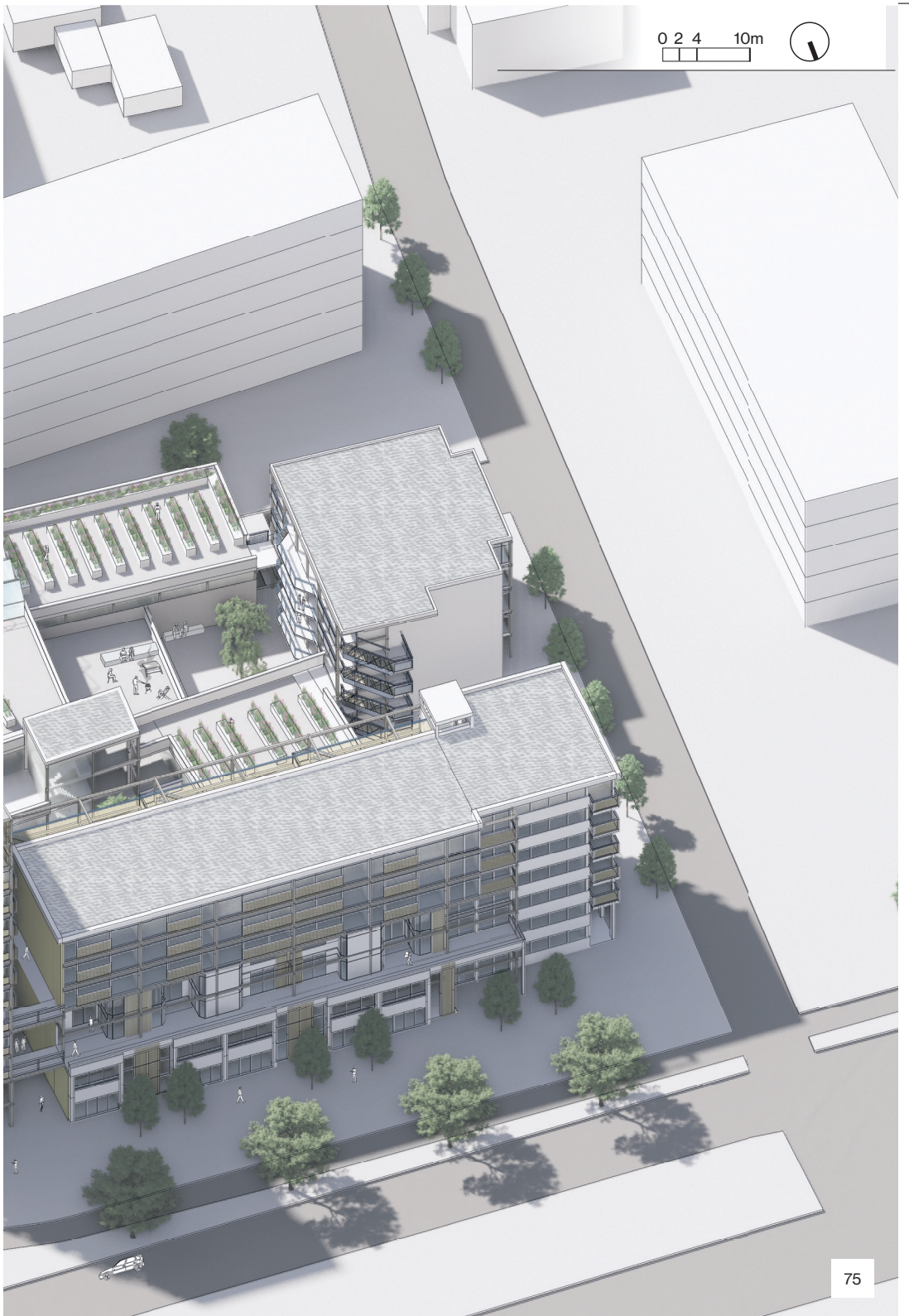


# DESIGN PROPOSAL

# Axonometry

North-East Orientation





0 2 4 10m



**Axonometry**  
South-West Orientation



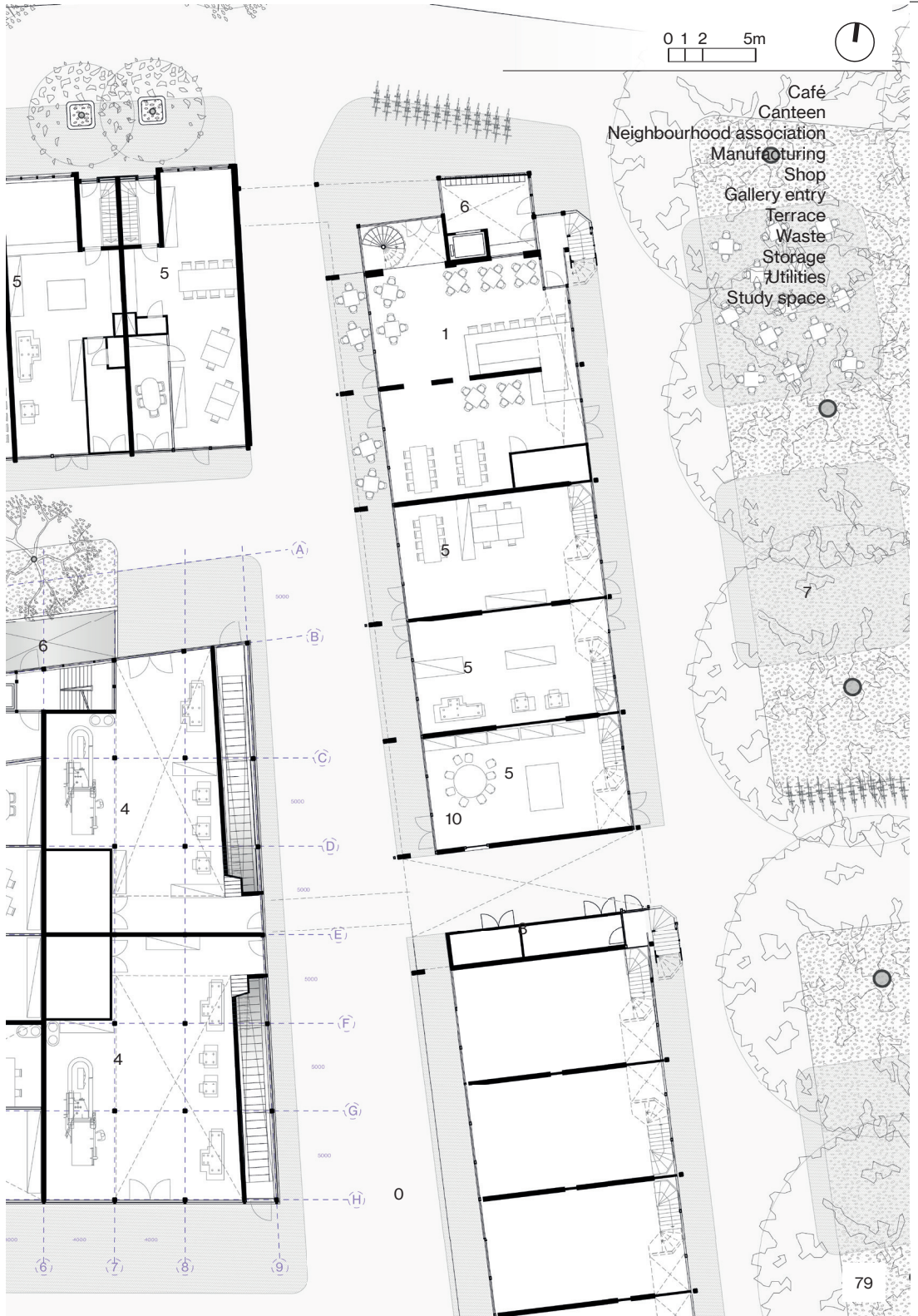
0 2 4 10m



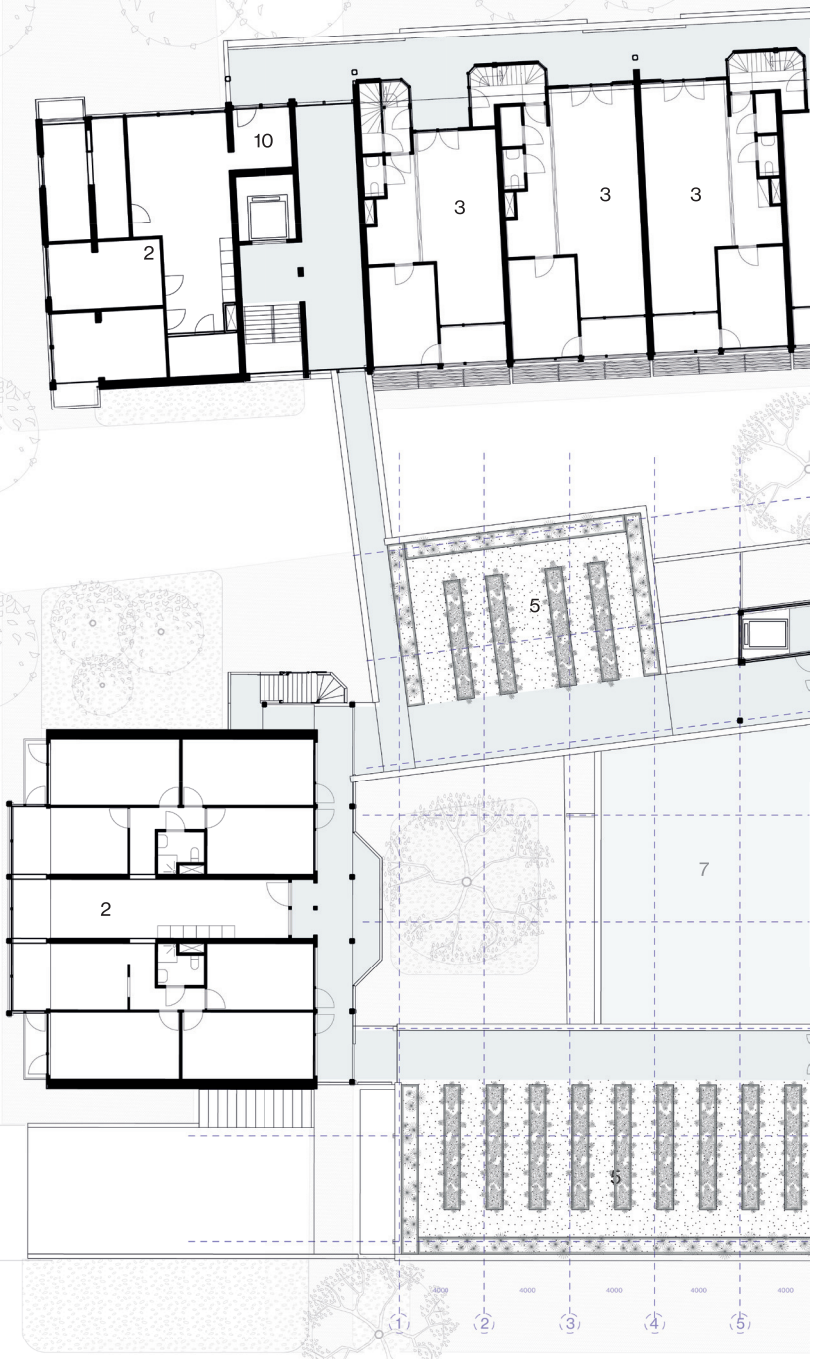
**Plan**  
Ground Floor



0 1 2 5m



**Plan**  
2nd Floor





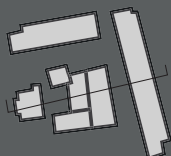
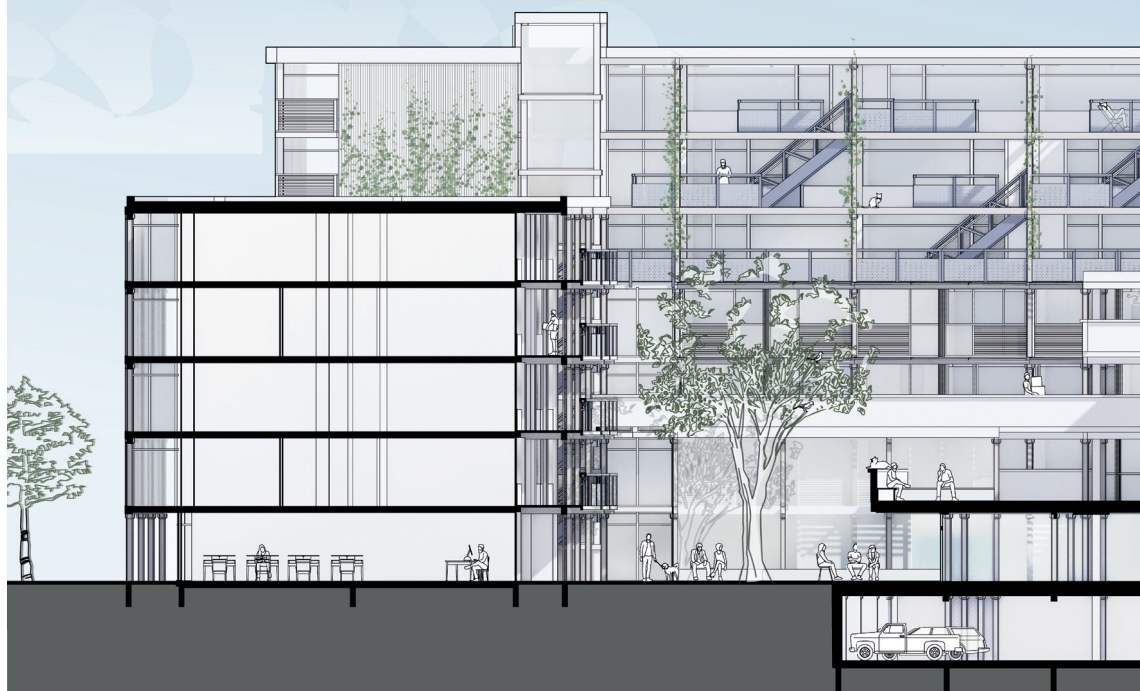
0 1 2 5m



- Café
- Co-living dwellings
- Expert-apprentice dwelling
- Solo dwellings
- Rooftop food production
- Gallery entry
- Terrace
- Waste
- Storage
- Utilities

# Section

West - East

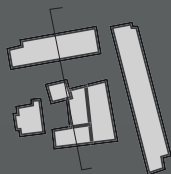


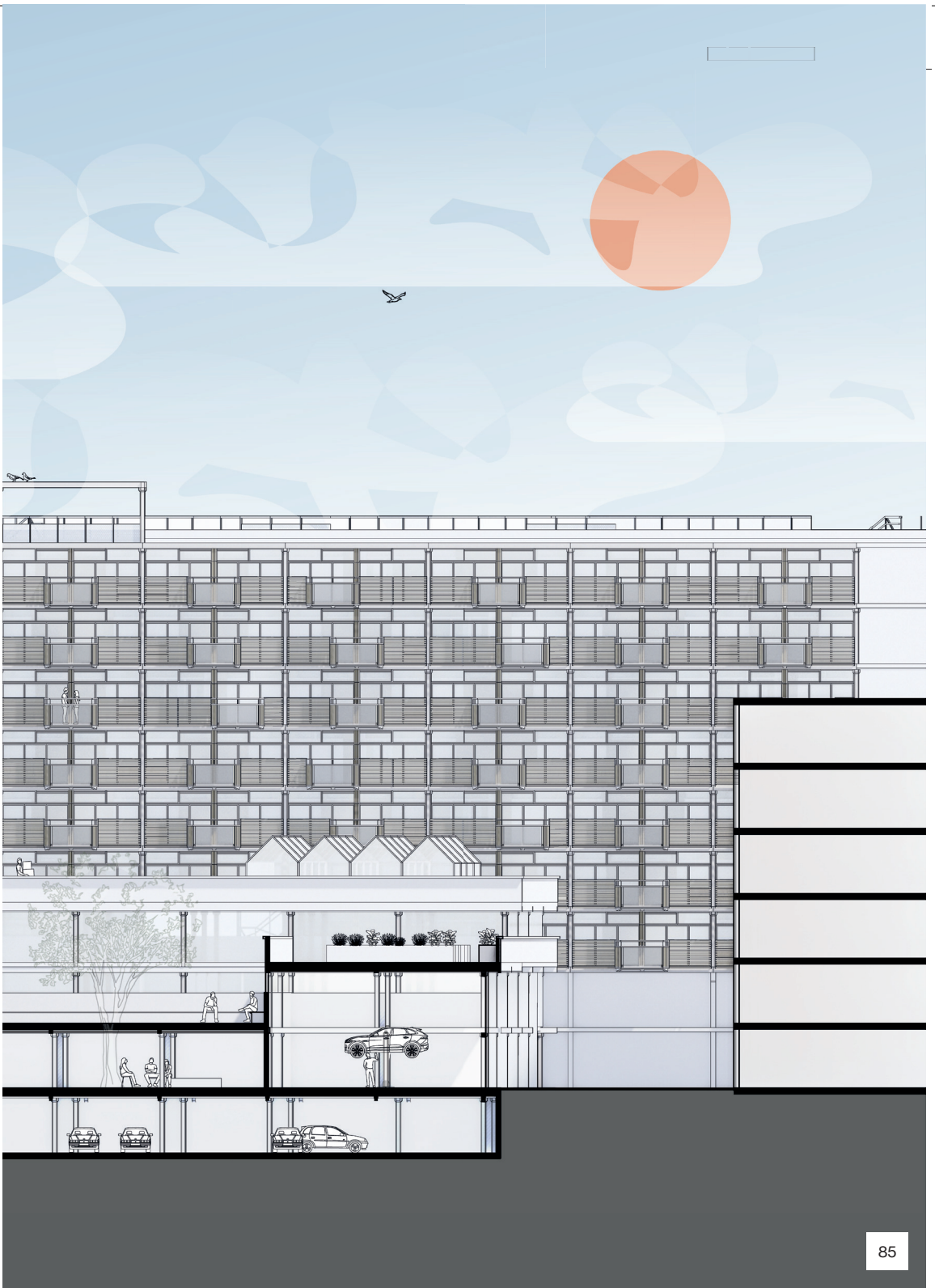
0 1 2 5m



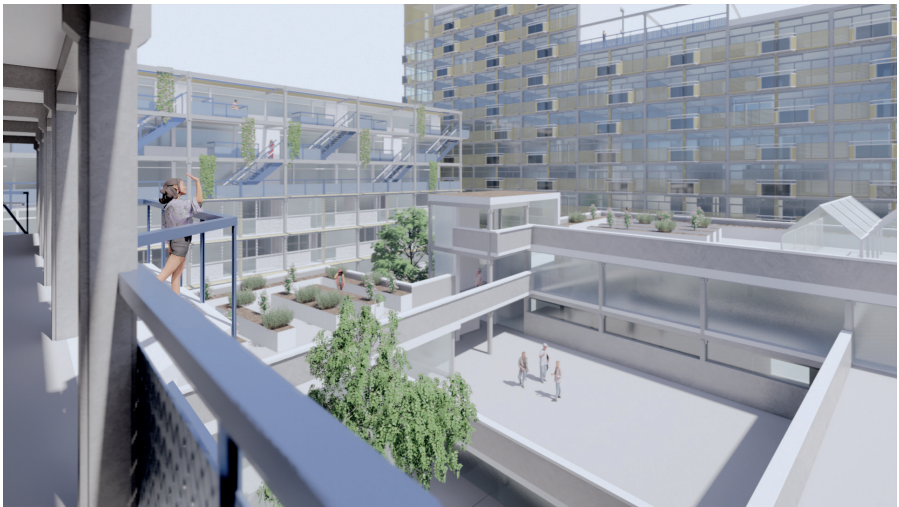
# Section

North - South











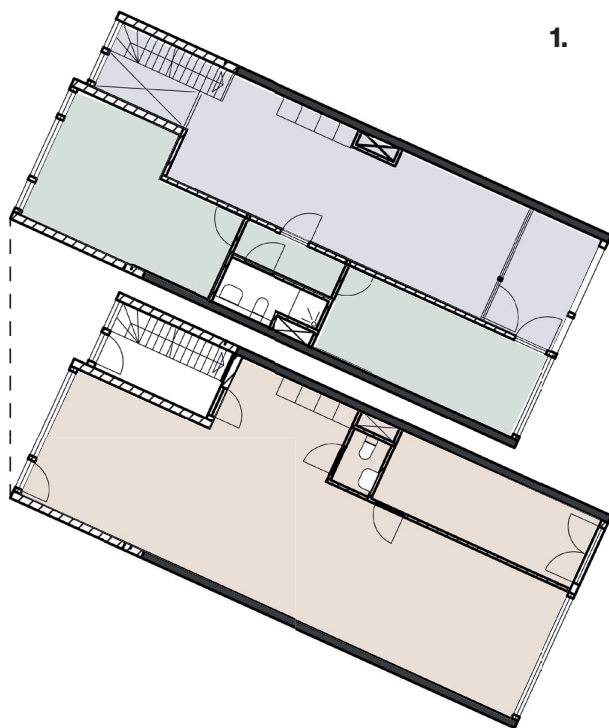







# Typologies

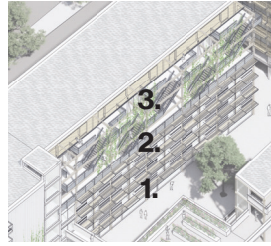
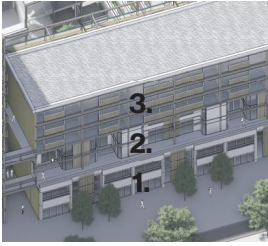
Northern street-block

1.



2.

- Integration space 
- Subjectification space 
- Production space 

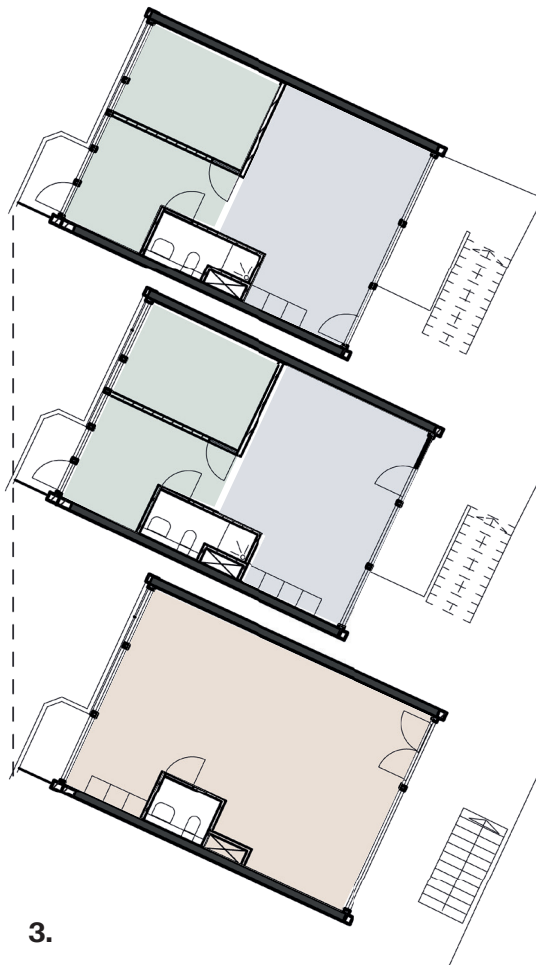


### Work-Living dwellings

1. 2-room apartment **95 m<sup>2</sup>**  
Ground floor shop + storage **95 m<sup>2</sup>**

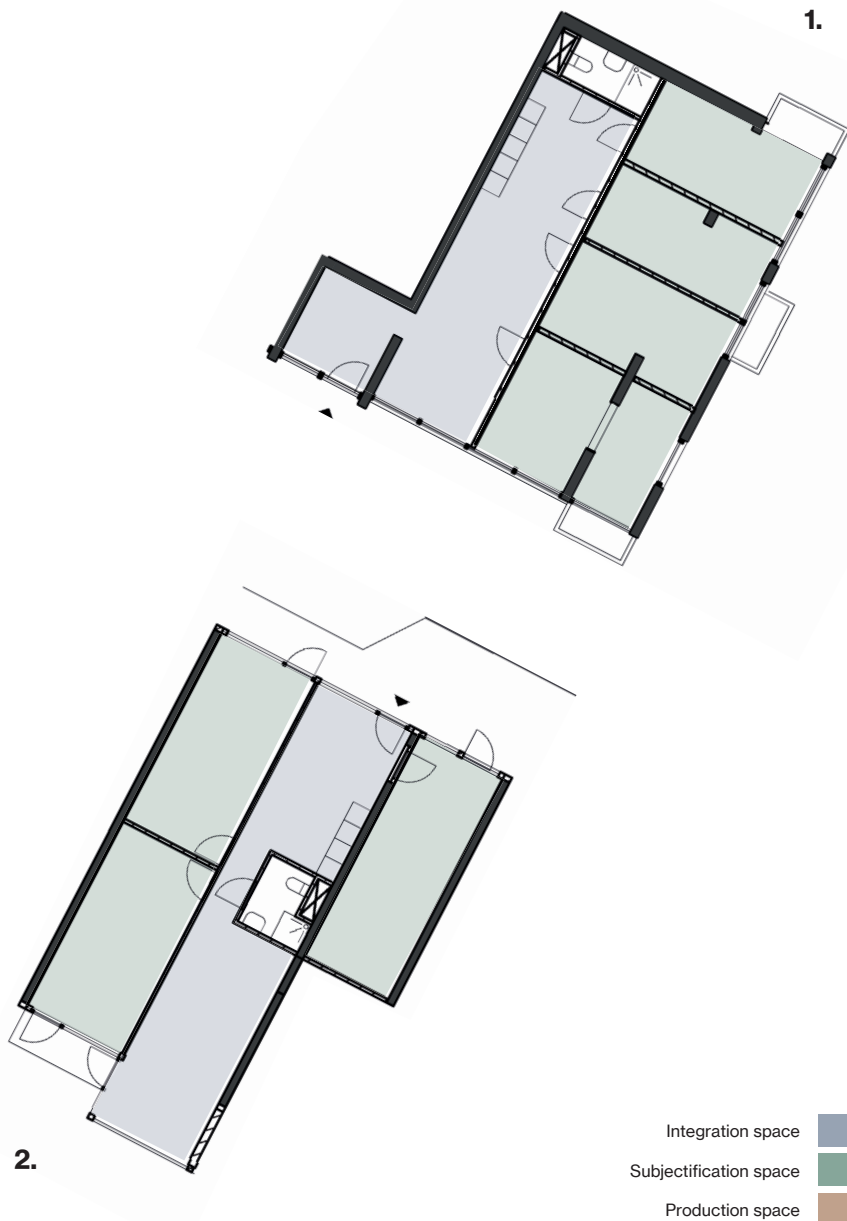
2. 2-room split apartment **110 m<sup>2</sup>**  
atelier / office / makerspace **44 m<sup>2</sup>**

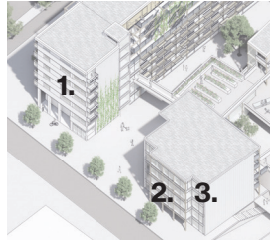
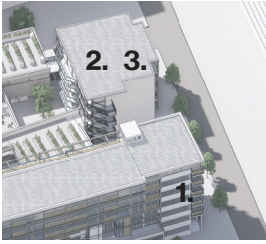
3. 1-room apartment **2x 55 m<sup>2</sup>**  
atelier / office / makerspace **55 m<sup>2</sup>**



# Typologies

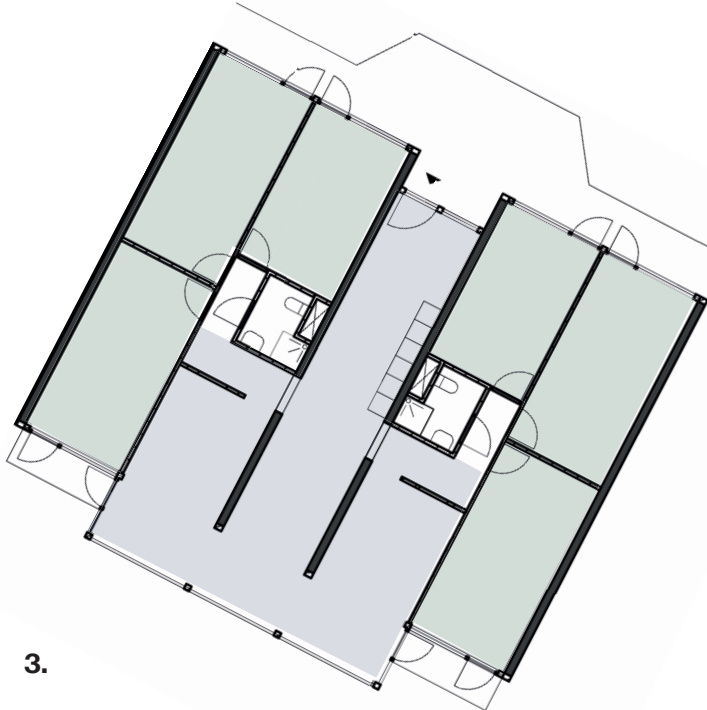
Western Clusters





### Co-living dwellings

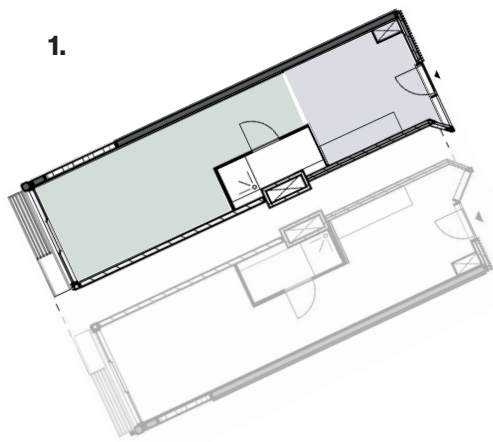
- 1. 4-room apartment **130 m<sup>2</sup>**
- 2. 3-room apartment (mirrored) **110 m<sup>2</sup>**
- 3. 6-room apartment **220 m<sup>2</sup>**



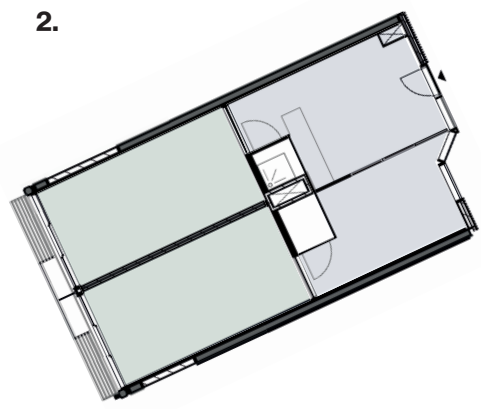
# Typologies




Eastern Solo dwellings

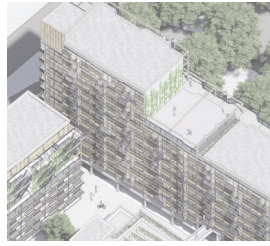
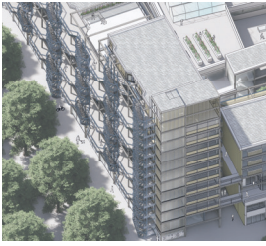
1.



2.



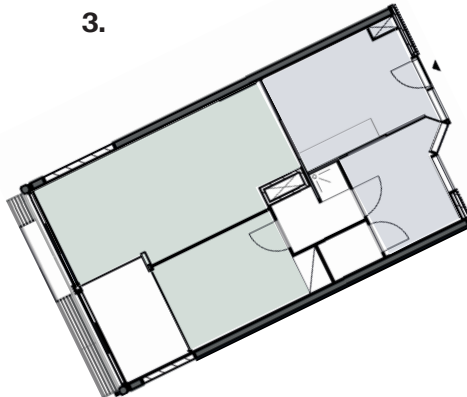
- Integration space 
- Subjectification space 
- Production space 



### Solo / shared dwellings

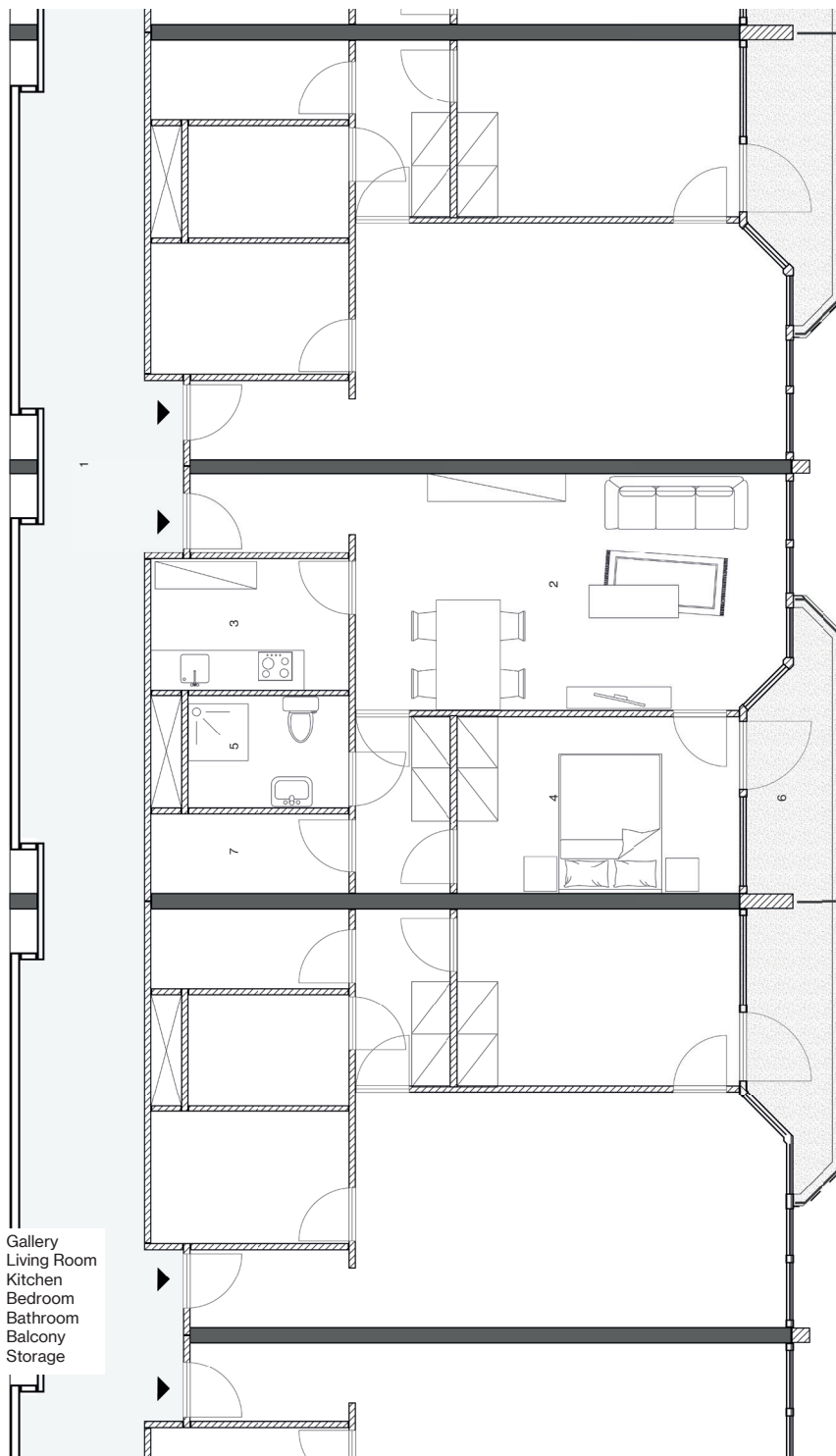
1. Studio **36 m<sup>2</sup>**
2. 2-room apartment / dual studio **72 m<sup>2</sup>**
3. 1.5-room apartment **72 m<sup>2</sup>**

**3.**



# Solo typologies

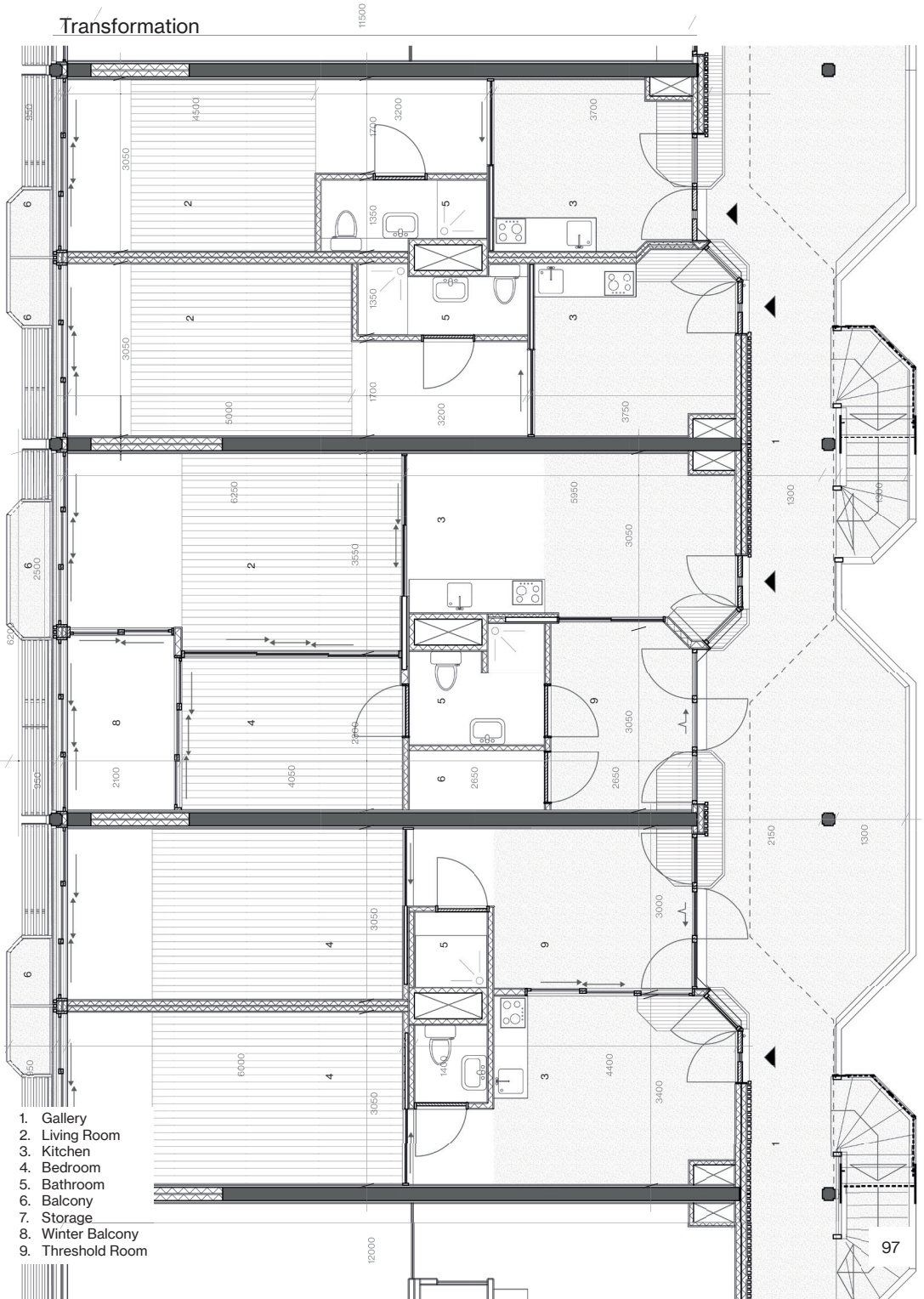
Existing situation



- 1. Gallery
- 2. Living Room
- 3. Kitchen
- 4. Bedroom
- 5. Bathroom
- 6. Balcony
- 7. Storage



Transformation



- 1. Gallery
- 2. Living Room
- 3. Kitchen
- 4. Bedroom
- 5. Bathroom
- 6. Balcony
- 7. Storage
- 8. Winter Balcony
- 9. Threshold Room

# Solo typologies

## Morning scenario

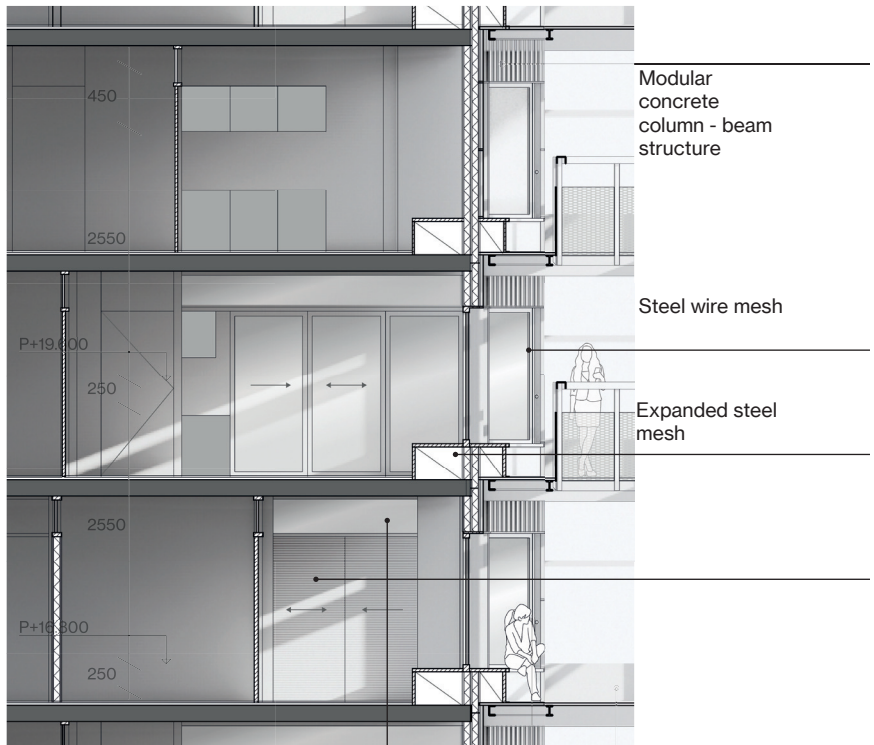


# Evening scenario



# Details

## Fragment



Modular  
concrete  
column - beam  
structure

Steel wire mesh

Expanded steel  
mesh

Terracotta  
vertical  
elements  
durable  
acoustic  
brick alternative  
replacable

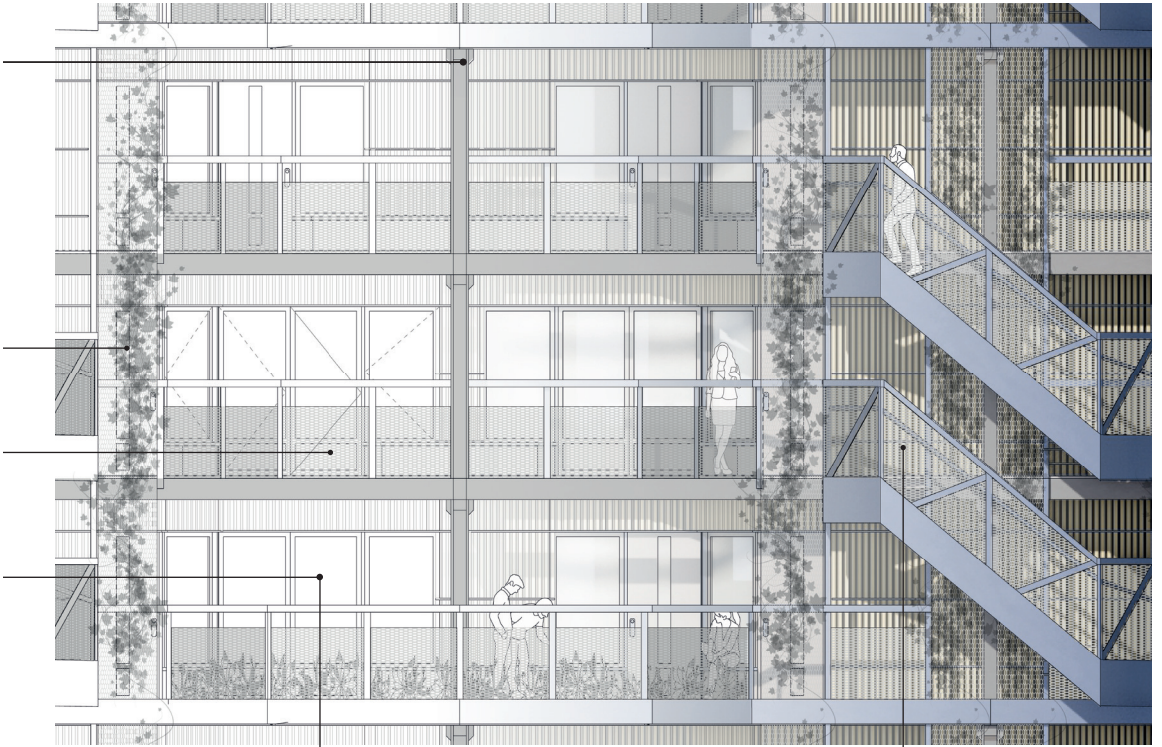
- 
- 
- 
- 
- 

Shared outdoor space  
sheltered by planting  
focal meeting point

- 
- 

Planters in edge  
climbing plants  
pollinator bushes  
connected to rainwater drainage

- 
- 
-

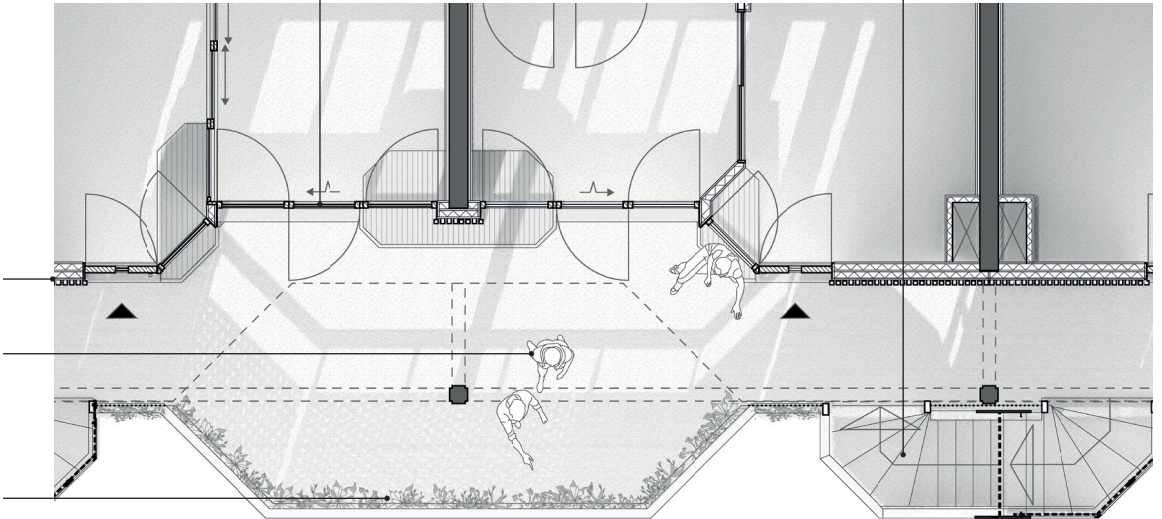


Openable front facade

- integrated benches
- threshold space

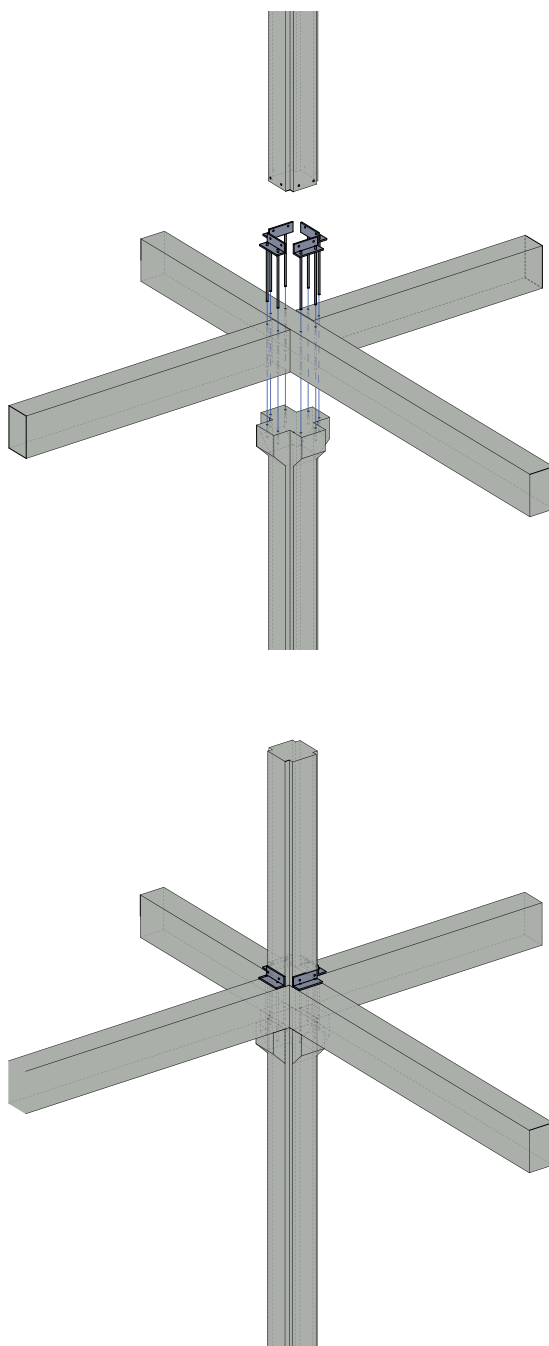
Steel stairs

- modular
- pre-fab

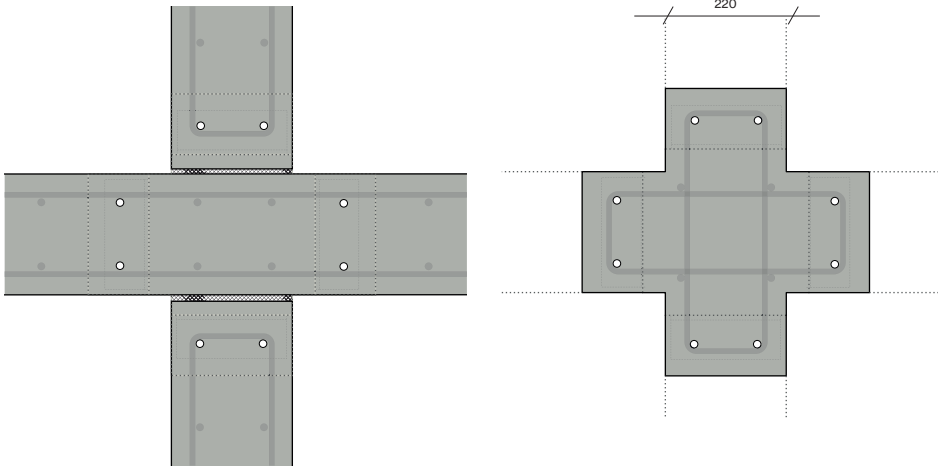


# Details

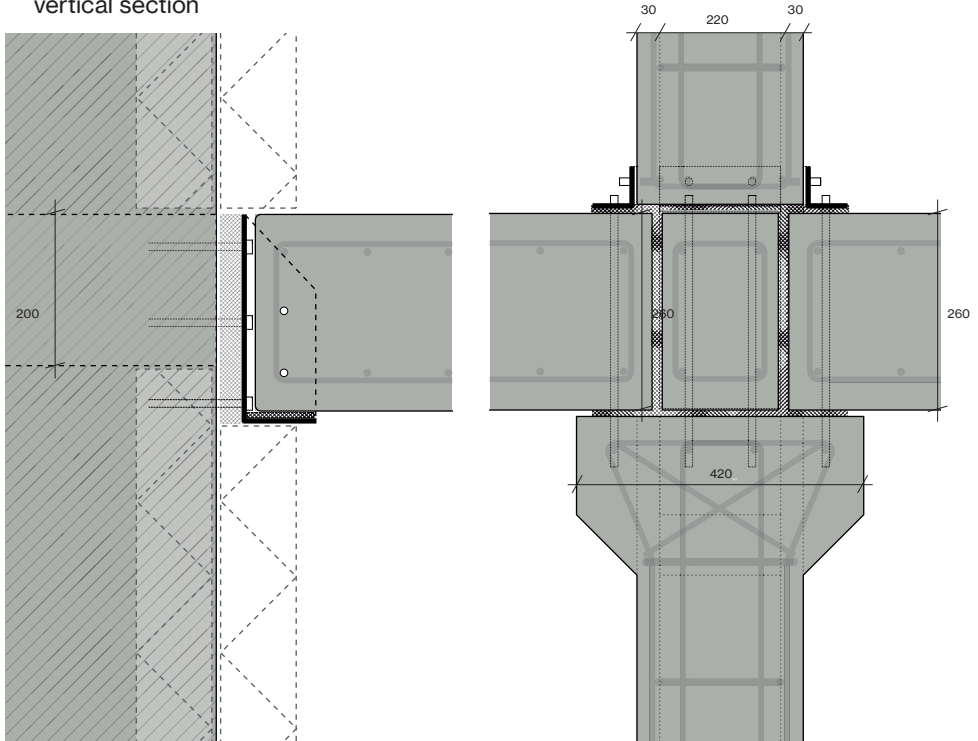
## Modular Column



horizontal section

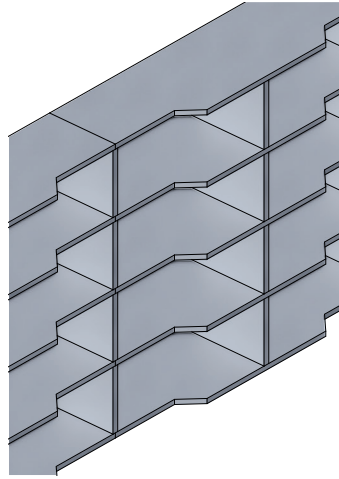
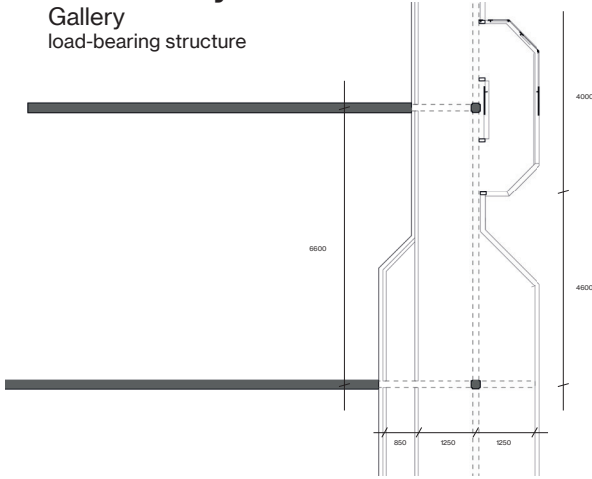


vertical section

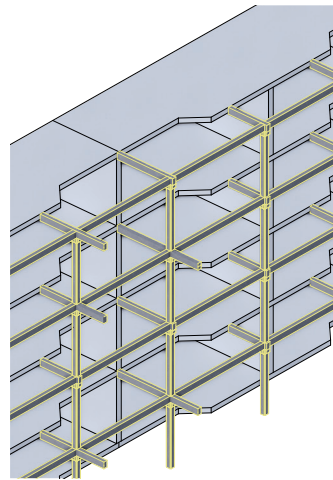
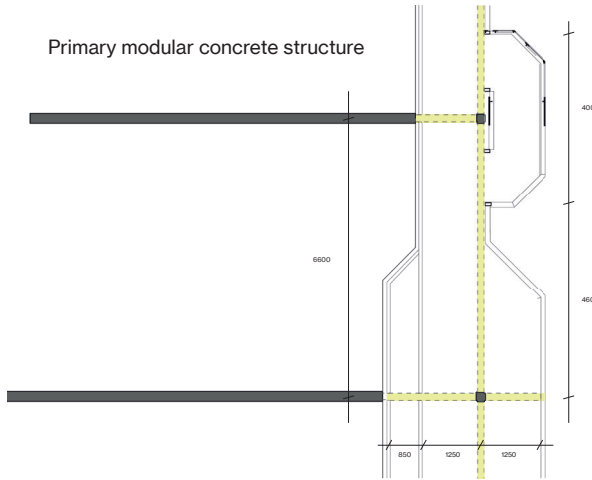


# Technical System

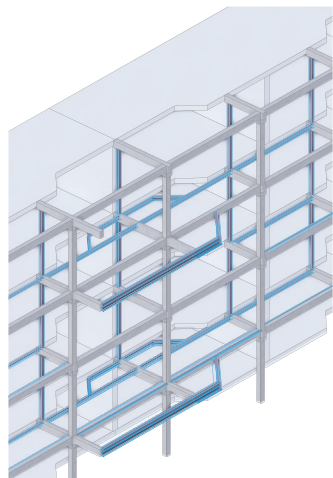
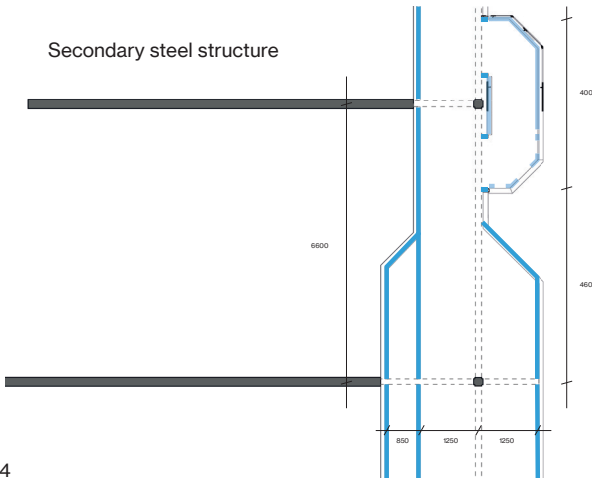
Gallery  
load-bearing structure



Primary modular concrete structure

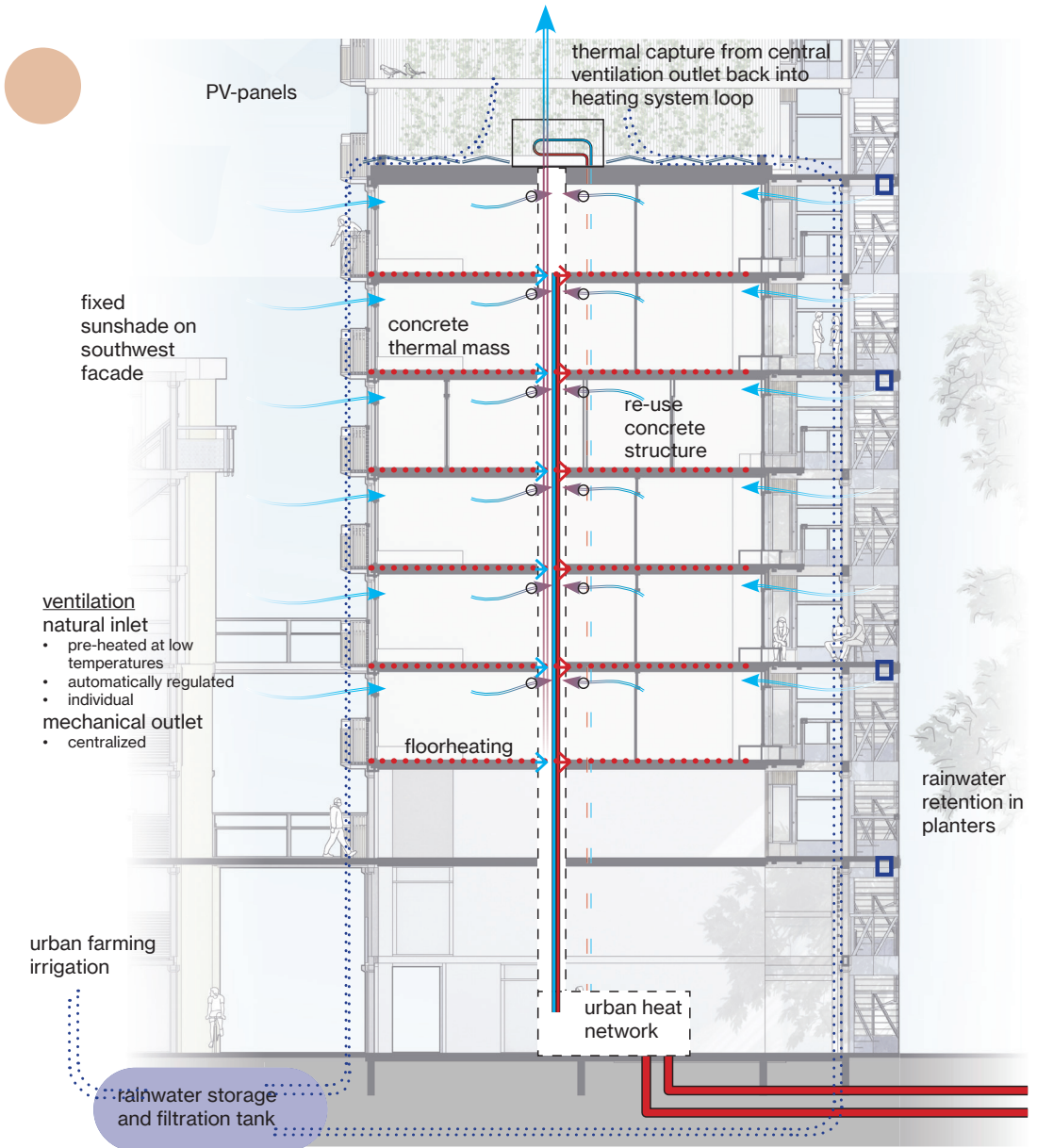
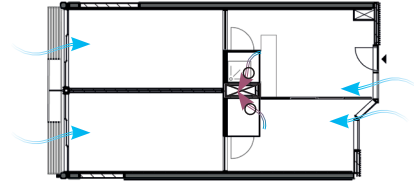


Secondary steel structure



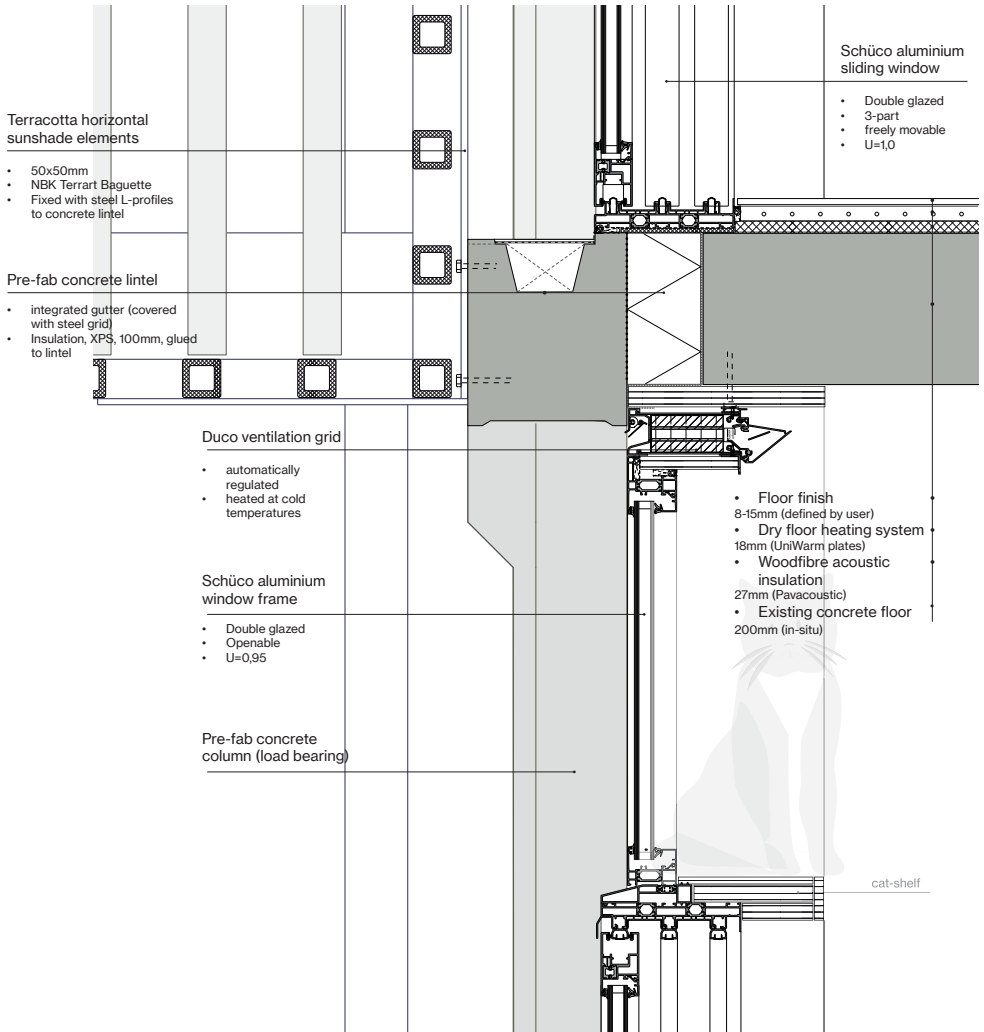


# Climate regulation



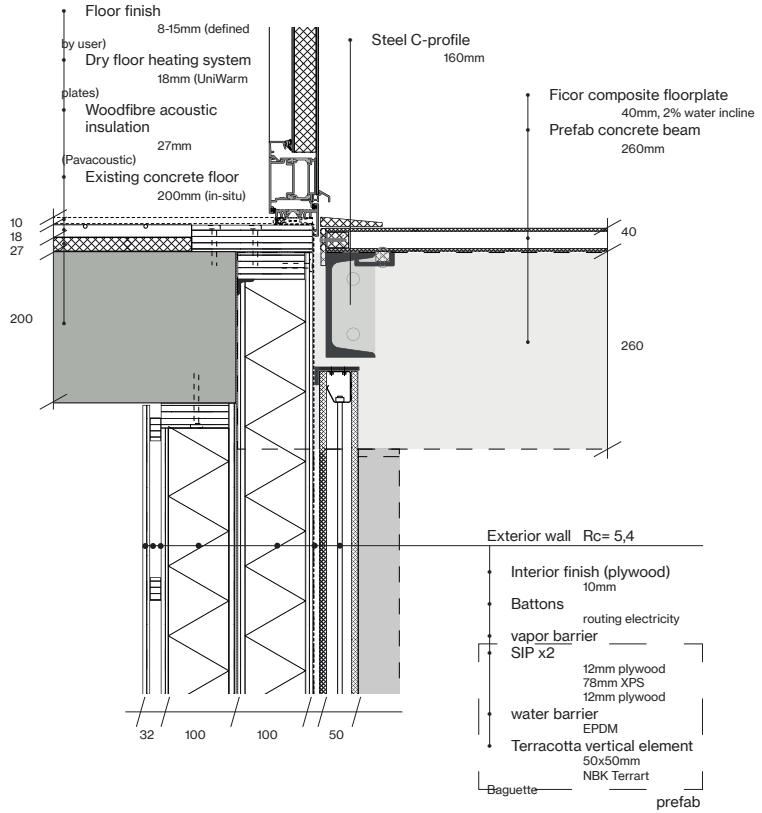
# Details

## Sunshade - Interior



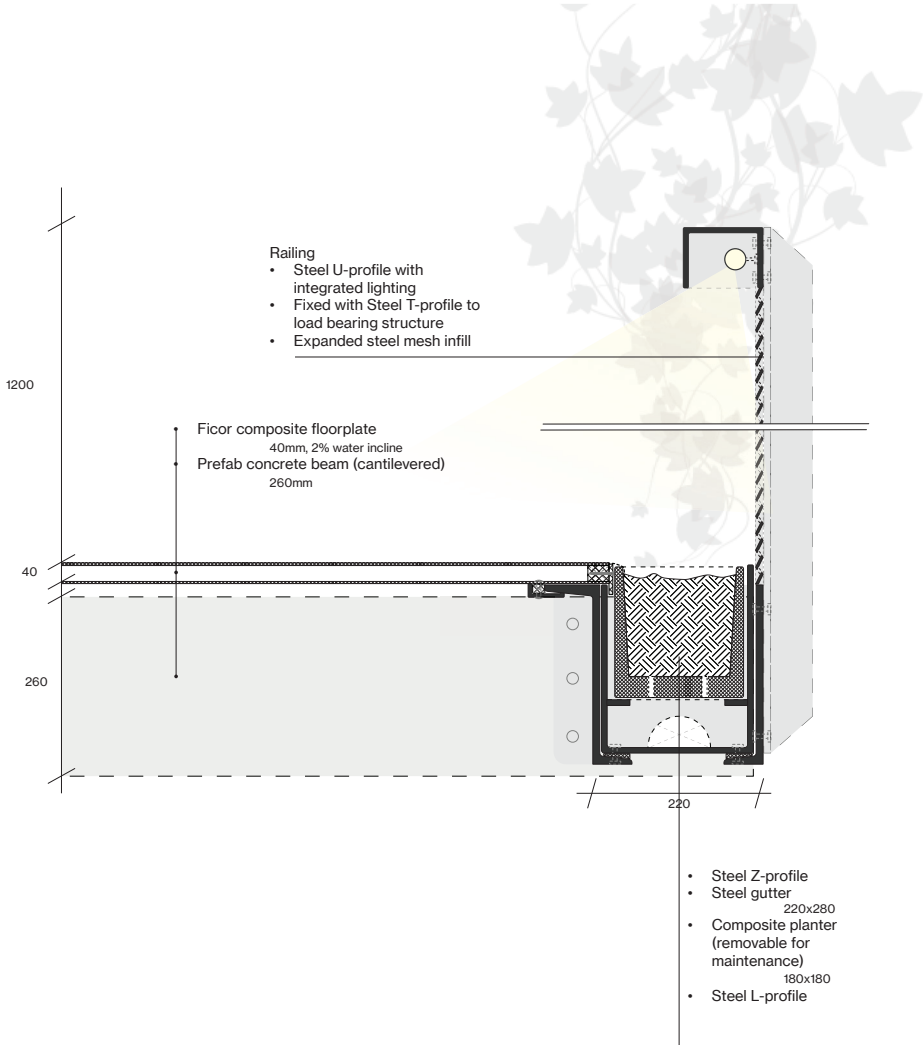
# Details

## Interior - Gallery




# Details

## Gallery edge



0 50 100 200mm



## P4 Research reflection

The subject that is shared between the topic of my graduation, the studio, the master track and the master program is the study of the built environment and its societal impact. Each level specifies their academic inquiry to an aspect of this discourse; my graduation, social and material reintegration of socially disadvantaged people and post-war mass housing, is a specific focus with the studio topic of 'ecology of inclusion', which in turn is a specific focus within the study of architecture, etc. The goal is to research the housing of socially deviant people, how to re-use existing buildings and in a wider sense how residential architecture interacts with care, production and social relations. The research is framed by the spatial, social and juridical practices and initiatives of the municipality and the people of Rotterdam, which is the place where the dwelling design studio Ecology of Inclusion is situated.

This research casts its net over a wide range of topics, that are seemingly unconnected, but prove some surprising insights. In line with Guattari's call for transversality, I look for hidden connections, innovations that are already there but just need to be consolidated. This wide scope however means a diminished precision. If I would dive into detail for each theoretical theme, this paper would become a book that requires years of research on a level which is beyond my experience.

In its theoretical part this research looks towards ideas regarding ecology, integration, subjectivity and production within and without the domestic sphere.

As mentioned, three registers are distinguished, according to the ecosophic principles of Guattari. These registers are the mental, the social and the environmental or material and they are used to analyze the practices and case studies according to the same principles. These registers are used to derive the three theoretical themes, integration, subjectivity and production, that throughout the whole research report interject as a kind of theoretical intermezzo. These theoretical parts explore theories that are related to the frames and pose the subquestions that are the starting points for the chapters that follow. Avoiding generalizing statements, these questions are the architectural conclusions of each theoretical part.

The findings are summarized into a set of design principles accompanied by a graphic novel. The subquestions posed by the theoretical intermezzos can be uniquely answered for each individual design in nature and are pragmatically based on the praxeological, typological and morphological analyses. The accompaniment of the

graphic novel aids in the imagination of the problems and practices. While fictional as a whole, its events are based on interviews and personal experiences.

Not included in the research report, yet, is the fact that I developed a seventh principle through the design. It was necessary to bring into my project a pragmatic element that ensured a modularity, uniformity and aesthetic interpretation of the six principles shown above. Especially the aesthetic interpretation is of interest to me. Guattari talk of the importance of an ethico-aesthetic reconstruction of social and individual practices. The design of a housing structure is an immense ethico-aesthetic action. I feel like I only realized this after I had written the research report.

Popularly, a building is most noted for its aesthetic influence on its environment. In designing, especially with social inclusion in mind, aesthetics becomes very important and I must say that I neglected this aspect until the end of the project. I believe it has to do with the translation of the six abstract principles I produced and trying apply these to make an objective, organizational, typologic and functional design, while in the structural and material expression of the complex I had no principles, no concept, other than influences of the context of the site itself (such as the use of façade material of the surrounding buildings, the acoustic pollution of traffic, the amount of bicycle parking space required, etc.). The seventh principle is a concrete element (literally) that makes a aesthetic reference to factory halls, aims to bridge this gap.

Chapter 2 dives into the concept and principles of 'Housing First', a praxeologic study into the idea that every person has an unconditional right to a house. It looks at the interplay and evolution of the organizational, institutional and structural implementation of Housing First in the Netherlands with the experience, agency and personal involvement of the clients or residents who take part in the program.

Chapter 3, 4 and 5 are typo-morphologic inquiries into case studies that have a social and typological surplus quality. As of yet, no useful precedents exist that include the housing of socially deviant people and the same goes for the combination of industrial workspaces and residential dwellings.

Chapter 6 and 7 include Rotterdam and innovative productive practices in the research, as well as the analysis of the neighbourhood and site of the design project. The architectural aspect comes in the question how to provide both the regular residents as well as the deviant residents to have the right amount of privacy - engagement balance through spatial and material interventions.

How to design within a residential complex the common spaces, the dwellings and the traffic routes so that a sense of community can be promoted. I will also look at the inclusion of workspaces and their interaction with the complex.

The insights achieved with these methods of theoretic, praxeologic, morphologic and typologic research provided me with a wide range of conclusions. I used the theoretic research as a base for the other types of research, a starting point from which I derived themes or fields of inquiry, these being integration, subjectification and production, to focus the other types of research and to make comparable conclusions. The praxeologic study of an institution that provides systematic care for homeless gave me the insight of the needs and wants of this specific group of socially disadvantaged people and the organization that is required to provide for these people. The conclusion however was not spatial or architectural but rather organizational, which made it difficult for me to link it to the morphologic and typologic case studies. These case studies proved most useful in the research for the design itself.

For the praxeologic study I took some interviews with a couple of formerly homeless people as well as someone who mediates between the homeless and the housing corporations. I found it hard to make conclusions out of these interviews, especially the experience of the homeless as they are highly individual and cannot be generalized. Even though it was very helpful in understanding the dehumanizing ordeals these people are experiencing, I'm not sure how to go beyond a conclusion saying that every person is different and needs individual attention, which is not that useful of a conclusion. Qualitative research like this is new to me and I should have studied how to perform these interviews in a more useful way.

The situation of the project is contemporary as it relates to the issues of the housing crisis, the rise in homelessness, the change in type of labour and industry due to globalization and automation and the necessity for renewal of the post-war housing stock in energetic and social terms, all bound to the location of the Netherlands, specifically Rotterdam. This all leads to experimentation of new housing constellations, where different mixes of functions, typologies, forms and organizations are considered. Cooperative housing models, a Swiss tradition for over 100 years are now slowly being introduced in the Netherlands as well, and research and experimentation regarding this kind of organization within a Dutch context helps in how this could be applied and realized in an effective way.



For the interviews during the research, I had to provide money to for the interviewees, who were formerly homeless. Luckily the university was able to reimburse me the fairly small amount. While it makes sense that they ask for compensation as they share their personal information with me, it did make me raise an eyebrow.

In the elaboration of the design, it came apparent to me how crucial it is to work in a team. The size of the complex, the different scales, the subjective design actions need consideration of another person, preferably someone who is an equal. The tutoring provided each week was absolutely necessary and educative, but it was expected that we students knew what to ask, which, in my experience could cause some things to be overlooked. Conversation with fellow students was as important, because we asked each other things we did not consider. Designing a 95-dwelling complex with public and manufacturing functions is a daunting and dizzying task for a single student. (although to be fair I gave this assignment to myself, unsure of how much work it would be)

Potential application will be hit mostly by zoning regulation and organization. This experimental complex of combing manufacturing and dwelling functions is something that is not regulated as per modern city planning these functions are separated. Things like noise pollution and logistics are hard to grasp as there are as good as no references to compare to. The organization of such a complex, not only in construction, but also in housing tenure and real estate management of the public and manufacturing spaces is another unanswered question. I gave the possibility of a housing cooperative that is able to coordinate between its residents (part of the cooperative) and the other spaces. However, I have not researched this aspect enough to make a good conclusion.





## Annex

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