



# REFLECTION

AR3AH105 ADAPTING 20<sup>TH</sup> CENTURY HERITAGE

MAURIZIO BRENNIA  
4718143  
TU DELFT

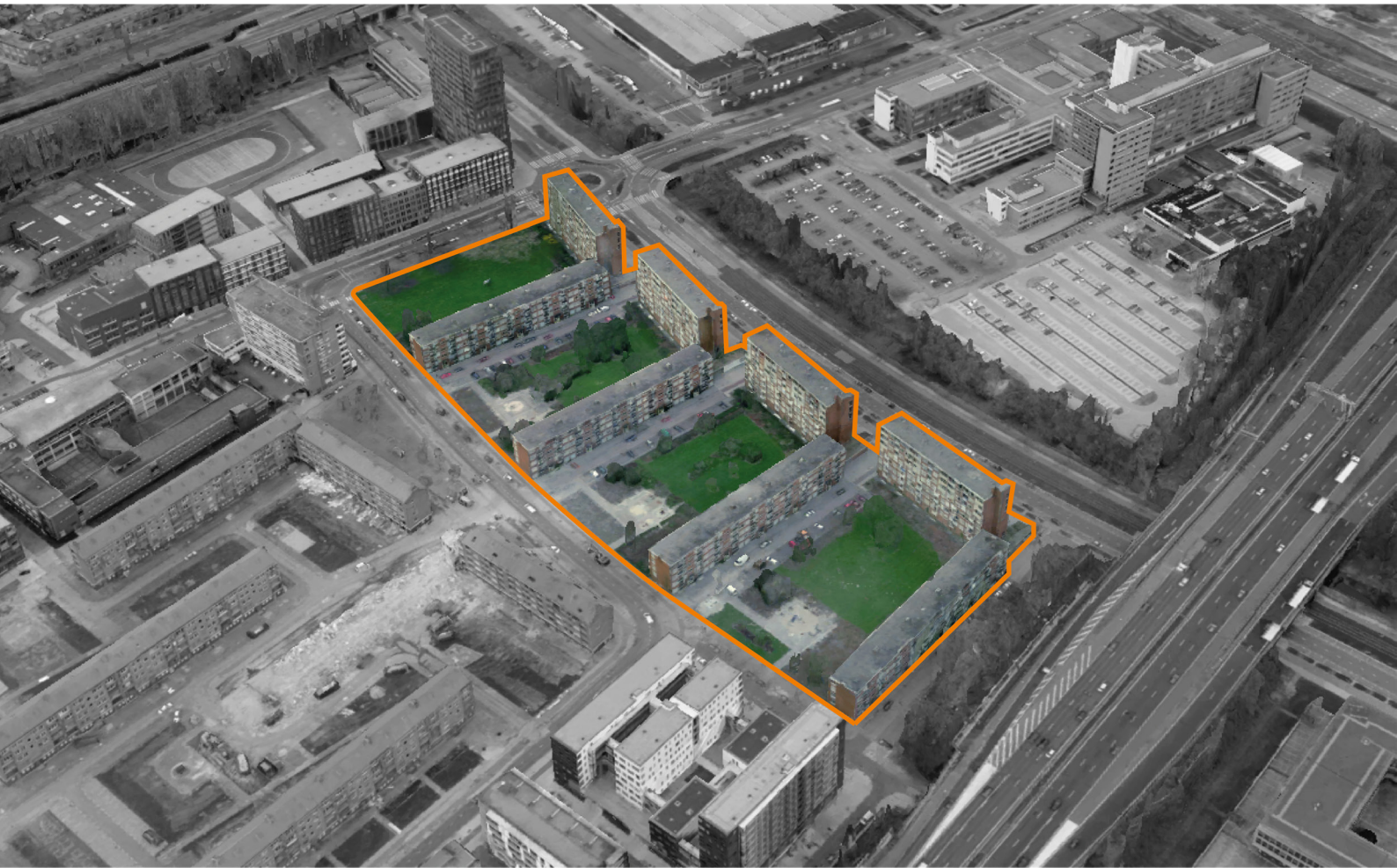
UTA POTTGIESSER  
TELESILLA BRISTOGIANNI  
PADDY TOMESSEN

## INTRODUCTION

The report 'Preserving Tangible and Intangible Values and Attributes in Heritage Housing' is about exploring a process in which both tangible and intangible values and attributes within an existing housing structure are preserved and strengthened. This research aims to contribute to the field of adaptive reuse and cultural heritage by exploring a practical strategy which could guide future sustainable and culturally sensitive urban development in future projects. By discovering what and why values and attributes are valued by inhabitants, the current living situation will be strengthened and improved.

At the same time, the project is a continuous research and development on how an existing housing structure with its embedded values and attributes can become future-proof in terms of sustainability, diversity and integrity.

The fascination that buildings do not have to be newly constructed to accommodate a modern day lifestyle, but the idea that existing structures can adopt and act as a core for communities, diverse social groups and as hubs for social interaction without losing its core values was a core motivator for the redesign of the 'Knijtjzerpanden' in Amsterdam.



## RELATION PROJECT TOPIC, STUDIO AND MSC TRACK

The studio Heritage and Architecture focusses on selected themes regarding built heritage. These differ from vacancy, to the preservation of monuments, new heritage, shared heritage and heritage communities. During the studio of Heritage and Architecture, students are asked to take a position regarding architectural and technical qualities of built heritage. Essential is the articulation and the understanding of these qualities when making decisions during the design process regarding the adaptation or conservation of the built heritage.

The graduation studio 'Adapting 20th Century Heritage' is about adaptability of relatively young (or new) heritage structures from the post-war reconstruction period. A period in which a Amsterdam knew a big expansion. Most post-war housing neighbourhoods fell victim to social problems, which have led towards the habit of brutal interventions and demolition with little respect for the original architectural ideas and qualities (Mens, 2019). Architectural and technical qualities include tangible and intangible values and design strategies for conservation and adaptive re-use. My research aims to not only discover these qualities, but also encourage to explore and consider these qualities through participation of involved target groups. Through participation, the research aims to be inclusive and through this inclusivity become resilient to future urban challenges.

As well as becoming resilient to future urban challenges, participation methods can give inside in the ideas and desires from the audience. Therefore creating opportunity for stronger argumentation regarding the position towards making design decisions regarding adaptation or conservation.

The project can be used as established resource that heritage can in fact be a resourceful solution for not only the creation of new housing opportunities, but also for the improvement of creating housing with the ability to adapt and overcome cultural, social, environmental, economic and sustainable challenges. And by doing so aligning with the educational methods of the Architecture track.

# FROM RESEARCH TO DESIGN & FROM DESIGN TO RESEARCH

By making use of a value-based assessment, this research explores how to evaluate to deal with a municipal monument. The findings of the research have contributed to the positioning in the debate on the architectural and technical characteristics of the built heritage of the 'Knijtijzerpanden'.

According to the Gemeente Amsterdam (2010) the Knijtijzerpanden as a building complex belong to Order 1, which means that "an architectural unit, based on typology, a special and/or characteristic architectural design, its position in an allotment and/or its contribution to an allotment, has the status of a national or municipal monument or qualifies as one". Furthermore, the valuation of the building complex determines the manner in which the built heritage may be altered or adapted. The higher the valuation, the stronger the existing architectural and technical characteristics have to be respected (Gemeente Amsterdam, 2010).

To take a position as architect towards the built heritage, the research explores the possibility of alteration or adaptation according to involved target groups through different themes.

## 1. VALUES & ATTRIBUTES

To better understand the tangible and intangible values and attributes within the built heritage, inhabitants were asked to name the best and worst qualities of the design case. According to the participants, most valued attributes were the area (tangible), community/people (intangible) and the relation context-association (intangible). Least valued attributes were building elements (tangible), context/setting (tangible) and management process (intangible). Furthermore, participants valued most the social-, economic- and ecological value types. Least valued were the scientific-, the social-, and economic value types.

## 2. PLACE ATTACHMENT & HERITAGE AWARENESS

Furthermore, strong emotional responses are triggered when people believe to be in places of 'significance' (National Trust, 2017). Personal attachment towards a building increases when people link personal memories and life experiences with a place or building, or either when people are satisfied with their quality of life. Bad quality of life and lack of personal memories were the most prominent reasons for not feeling a personal attachment to the design case.

Participants of the research indicated that a monumental status of a building by definition does not mean a building has more personal value. Value towards a monument is mostly assigned when people feel personal attachment towards that monument.

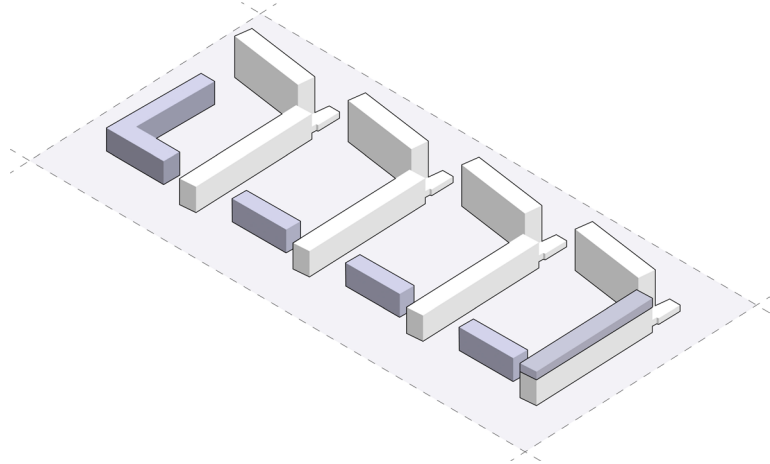
C  
CONNECTIONS  
M  
M  
SUSUSTAINABILITY  
DENSIFICATION  
INSIDE / OUTSIDE  
INTERACTION  
DIVERSITY

Figure 2. Design principles from research and analysis. Own image

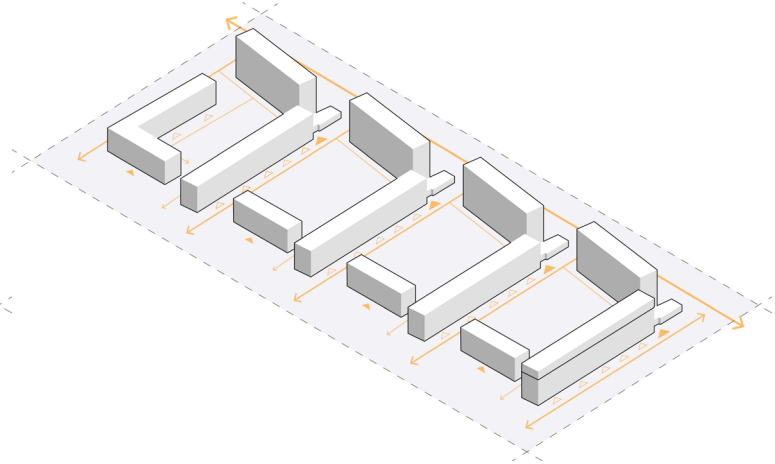
Results from the research provided the starting points for the design (figure 2). Problematic areas deriving from the research indicated the course of the design on both the urban and building scale. In combination with an architectural analysis of the design case, this led to redesign strategies in which a balance had to be found between the preservation of the monument (built heritage) and the desires of non-experts inhabitants of the design.

The interplay between expert views on architectural qualities of the design case and the conception of residents formed the core for articulating choices during the design process when altering or conserving the built heritage. More specifically, core values deriving from both the research and the analysis (figure 2&3) were attempted to be addressed in the design:

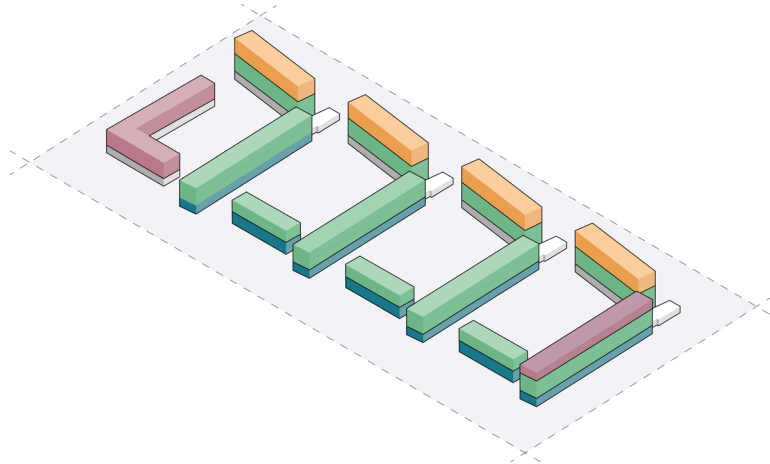
### DENSIFICATION



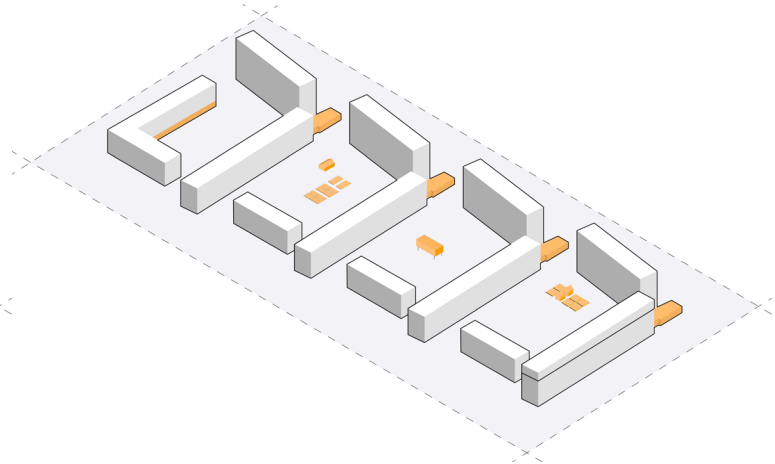
### CONNECTIONS AND FLOWS



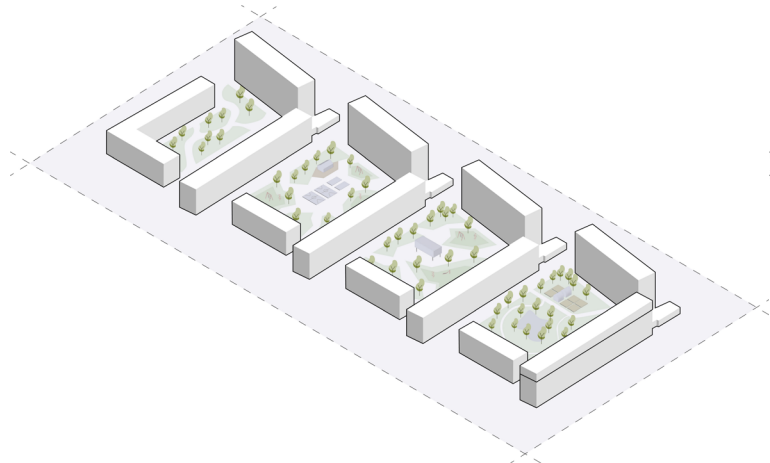
### DEVERSIFICATION OF HOUSING



### COMMUNITY SPACE



### FUNCTIONAL COURTYARDS



### SUSTAINABILITY

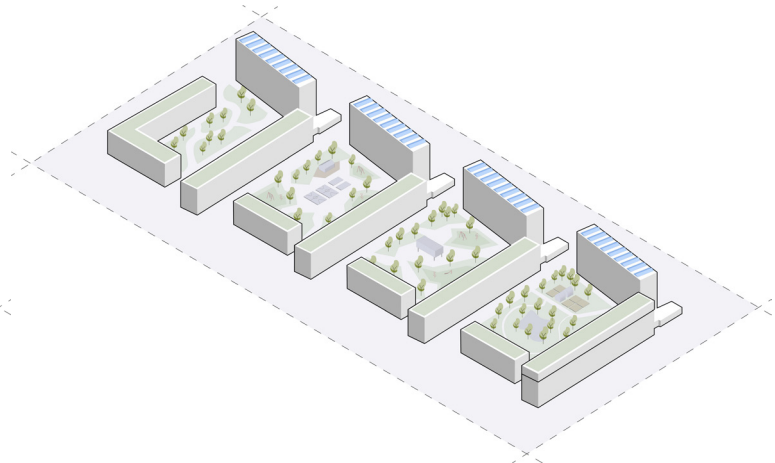


Figure 3. Analysis and research principles translated to the design. Own images.



## APPROACH, METHODS AND METHODOLOGY

This research aims to identify the tangible and intangible values and attributes present in existing buildings. Therefore, residents of the selected design case are involved in the design phase to create a design that both preserves these tangible and intangible values and architectural characteristics, and ensures a pleasant living environment.

The methodology derives from existing literature studies. The taxonomy of values from Veldpaus (2015) and the value-matrix from Pereira Roders (2012). This research examines the preservation of valuable attributes and values within built heritage. Since the research is based on the inclusivity of involved stakeholders, the method of research was through participation. In this case through interviews. The interviews were both in person as online, to get as much responses as possible and make the interview relevant for all inhabitants of the design case.

The chosen method required a specific line of questioning to obtain answers that could be easily categorized both within the taxonomy of attributes and the value matrix. Looking back on the process and the chosen method, I believe it was appropriate for the selected research. The interview was structured in a way that yielded the desired responses. These responses were then systematically processed into Veldpaus' taxonomy of attributes (2015) and Pereira Roders' value matrix (2012). By incorporating the responses into these frameworks, the results could be easily translated into design principles, facilitating a smooth transition from research to design. However, the results of this research process were somewhat lost when the design process focused too heavily on analysis rather than on the research itself.

In conclusion, I think that my approach, method, and methodology were appropriate for the type of research I intended to conduct.

# CULTURAL, SOCIETAL, ECOLOGICAL CONTRIBUTIONS AND ETHICAL CONSIDERATIONS

## CULTURAL

Through the position taken in the research in between both considerations, the expert view on the built heritage and the opinion and input of involved target audiences, people will understand that respecting a buildings values and attributes can be preserved while making alterations to the building to prepare it for future challenges. Hereby, alterations can be made without losing important key aspects defining the built heritage.

## SOCIAL

Involving stakeholders in the process of altering and adapting a building itself is a social process in which experts and non-experts work together towards a collective goal. Furthermore, the research examines the needs of the user and the implements these in the process of a redesign by preserving people's memories but also searching for ways to create a new identity for the heritage building.

## ECOLOGICAL

Sustainability and climate change are becoming more prominent important contemporary challenges society is faces. Built heritage often struggles to meet modern day requirements regarding thermal performance and generating energy. Through the research we learn that thermal performance is a big factor for determining the quality of life for a lot of inhabitants of the design case. This research combines a heritage assessment and the preservation of tangible and intangible values and attributes while improving the thermal quality of the building. Factors as using the roofs for generating energy, greening and as part of the floor plan together with shading the windows will are all considered.

## ETHICAL

All information retrieved and used for this research was done with consent of the participant. Anonymity and confidentiality was guaranteed and maintained through during the process the process. Furthermore, all answers given were analysed with objectivity. The research complied to the necessary ethical requirements through an Ethics Review checklist, a Data Management Plan and an Informed Consent form. These documents covered and informed participants of the potential risks, detailed plans and data use for the research. Additionally, the Human Research Ethics Committee (HREC) has accepted the application of these documents for the research.



## TRANSFERABILITY OF THE PROJECT

Regarding the buildings own history, the 'Knijtijzerpanden' were put up for demolition before monument activists put a hold on this process. The municipality decided not to demolish the building and gave it monumental status. For this design case, it is therefore particularly important to consider the opinion of the 'community'.

People's opinions about the preservation and adaptation of monuments in generally important in issues about the adaptive re-use of a building. This research shows that through participation methods, involved audiences get to share their opinion in the redesign process. Eventually, it's the people who use the building which are responsible for the prolongation of the buildings lifespan. They are key pieces in the way society sustainably deals with existing structures for the future.

Moreover, this research shows that regardless of a building's title, people may or may not value a building. Hereby however, exists the notion that not every participant possesses the knowledge to have make a correct judgement for the redesign process. By finding the right balance between valuing the existing architectural characteristics and listening to current/future users of the building, place attachment can grow. This would revitalise buildings which could then withstand future challenges and with which many users can have a personal connection. Eventually, personal attachment causes for built heritage to last longer.

## CHALLENGES AND DIFFICULTIES

The biggest challenge for this redesign project was the conflict between the results of the research (representing the wishes of stakeholders of the design case) and the preservation of the architectural qualities of building which the municipality considered to be of monumental status.

Research results show that most people have need of a building resistant to Dutch weather conditions. Many people in the current situation would benefit from less draft and mold in their homes and considered this the worst quality of the built heritage. In addition, varying from person to person, people did not place too much value in the appearance of the buildings. Many people mentioned social contact and good relationships with neighbours as the best quality of the built heritage.

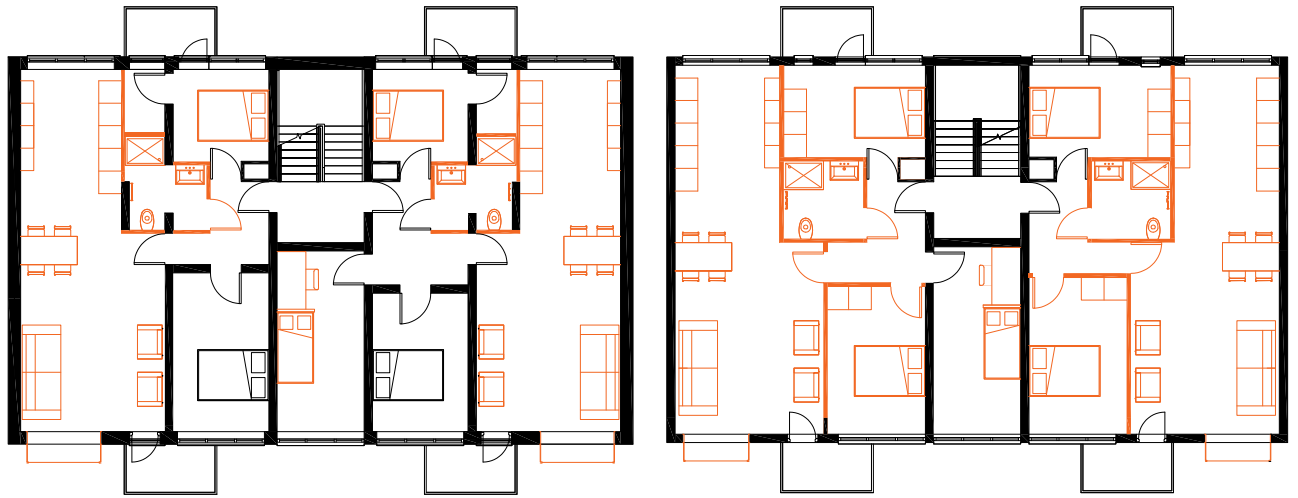
The question arising from the research results then becomes: to what extent can the built heritage be altered in order for it preserve the architectural and technical qualities which define it as a monument. Ibelings (2018) defines four types of alterations when dealing with heritage: - restore; - repurpose; - restructure; - & regenerate.

Through a detailed analysis of different aspects on both the urban and building scale, the most prominent characteristics of the design case were defined through the architect's intentions and ideologies from the post-war period. An assessment was made based on the importance of each of those characteristics to determine a hierarchy.

The analysis revealed that certain ideas and building elements determine the preservation of the most prominent architectural qualities. At the beginning of the process, my position was rather conservative towards dealing with the design case and it was more of an attempt to gently restructure the existing rather than doing alterations and more prominent interventions. Through the architectural analysis, I lost track of the design principles deriving from the research, on which I later had to come back to. Thus, through various interventions, an attempt was made for the creation of more personal bond between user and building with more perspective towards the future.

### RESTORE

The original design ideas of the floor plan on the second-fifth floor for the higher building blocks, and the second and third for the lower building blocks have been restored with the main idea of just updating them to modern day standards. However to complement these original ideas with the research, a protruding window has been added to the living room, to both be an addition to the living room as well as creating views and put more emphasis on the community courtyards (figure 4).



Floor plan Level 1-5, northern building blocks. Scale 1:200

Floor plan Level 1-4, eastern building blocks. Scale 1:200

Figure 4. Restore; redesigning the floor plans based on the original design ideas. Own images.

## REPURPOSE

The ground floors have been re-purposed. According to Mens (2019), based on a study on multiple similar cases in Amsterdam New-West, closed off plinths are considered one of the worst tangible characteristics. Therefore, during the design, these ground floors were re-purposed and with it the facade (figure 5&6). The new situation considers a better connection between inside and outside with preserving the idea of community (in this case social control) as a main factor.

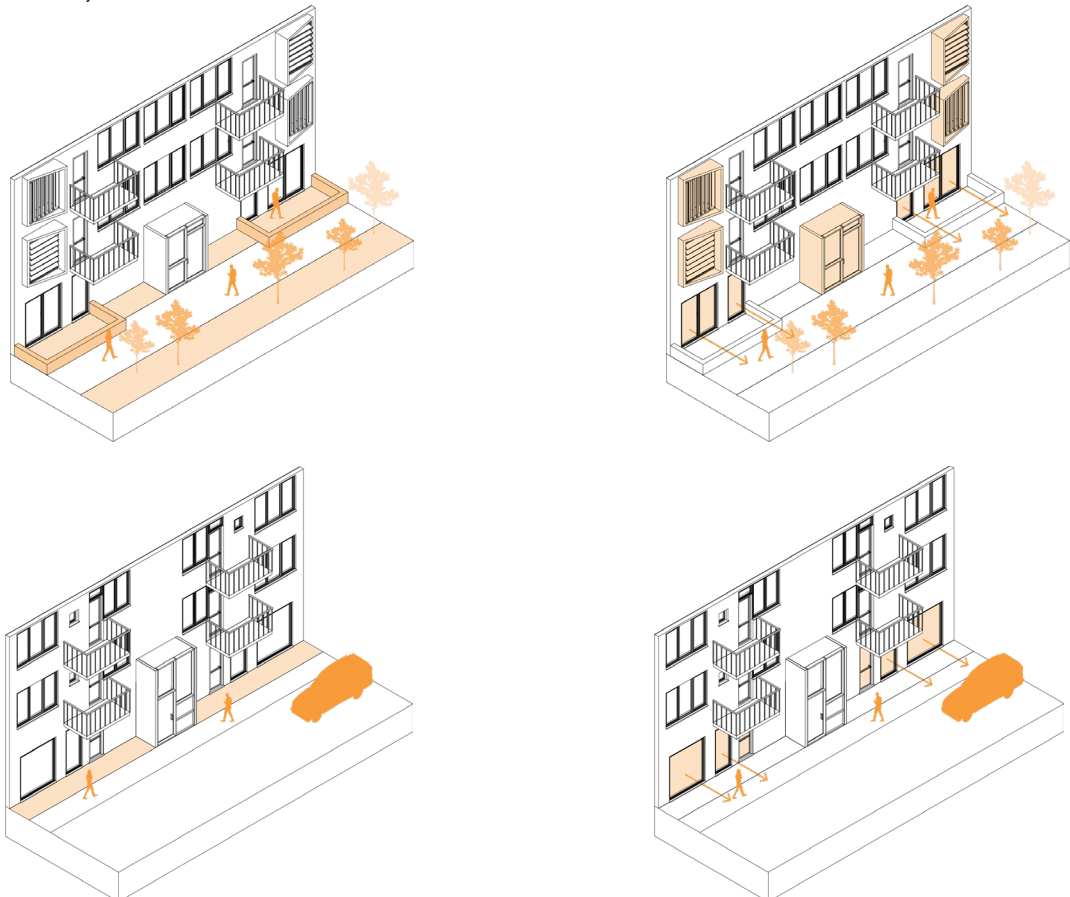
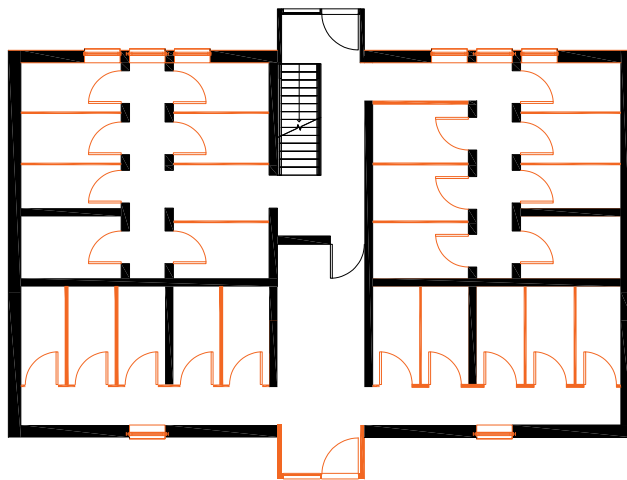
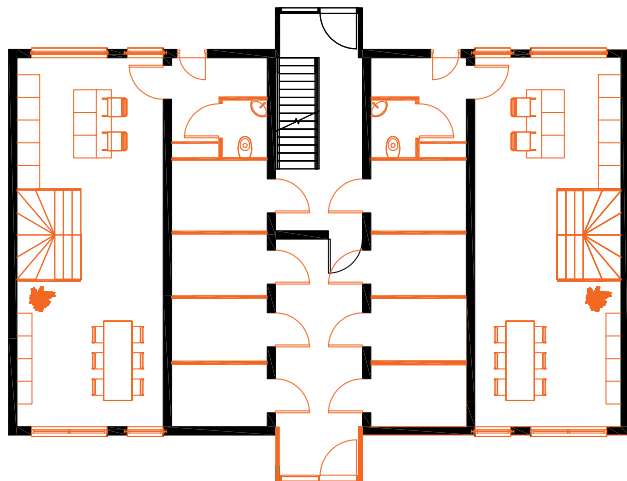


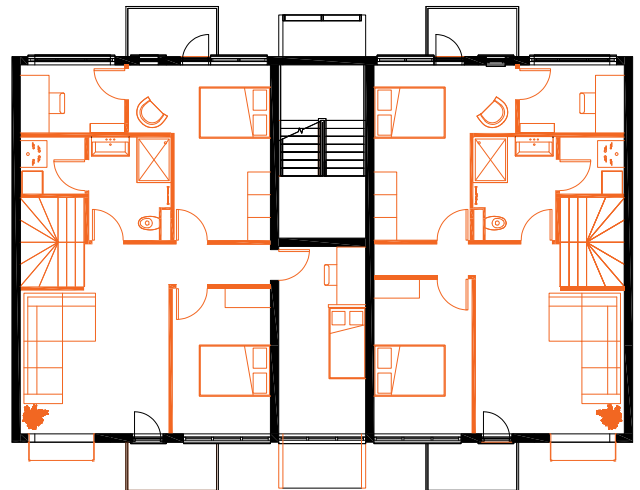
Figure 5. Repurpose; re-purposing the ground floor to increase interaction between inside and outside. Own images.



Ground Floor, northern building blocks. Scale 1:200



Ground Floor, eastern building blocks. Scale 1:200



Level 1, eastern building blocks. Scale 1:200

Figure 6. Repurpose; the new ground floor plans of the building blocks. Own images.

## RESTRUCTURE

To increase the sense of community, a shared community space has been added into the existing corner building. As well as improving the connections and create more connection between the buildings and its surroundings, a shared washing room and study/workplace has been added. Furthermore, the facade has been restructure by adding insulation on the outside (figure 7). This way the most prominent characteristics will be preserved while the inner climate (as resulting as an important research principle) improves.

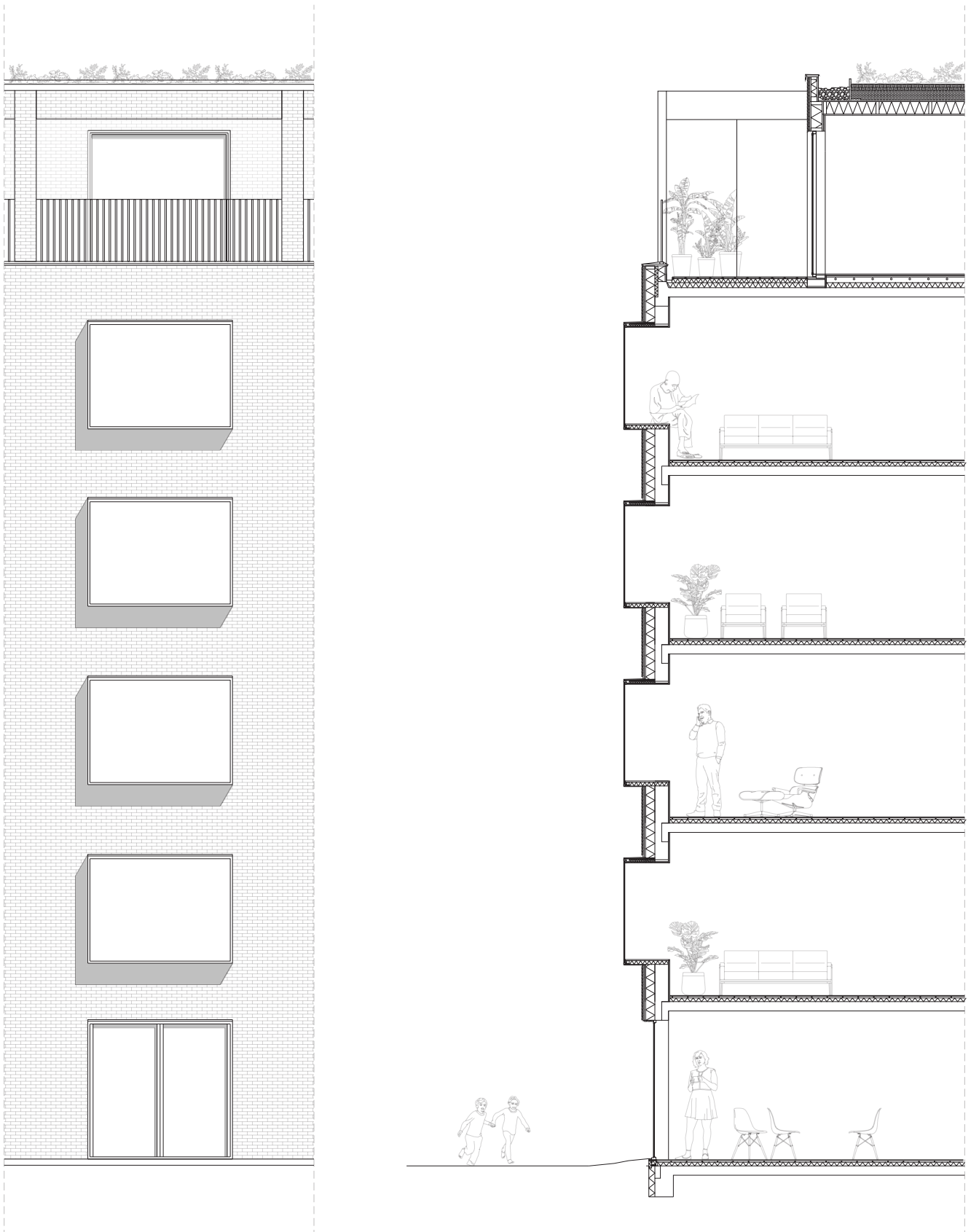


Figure 7. Restructure; the new restructured facade with outside insulation. Scale 1:50 Own images.

## REGENERATE

Some parts of the building have been regenerated in order to add core design principles either deriving from the research or the architectural analysis. These additions are the topping up on the most eastern orientated building block (densification, diversification) and the newly constructed buildings on the southern side (densification, community, diversification) (figure 9&10).

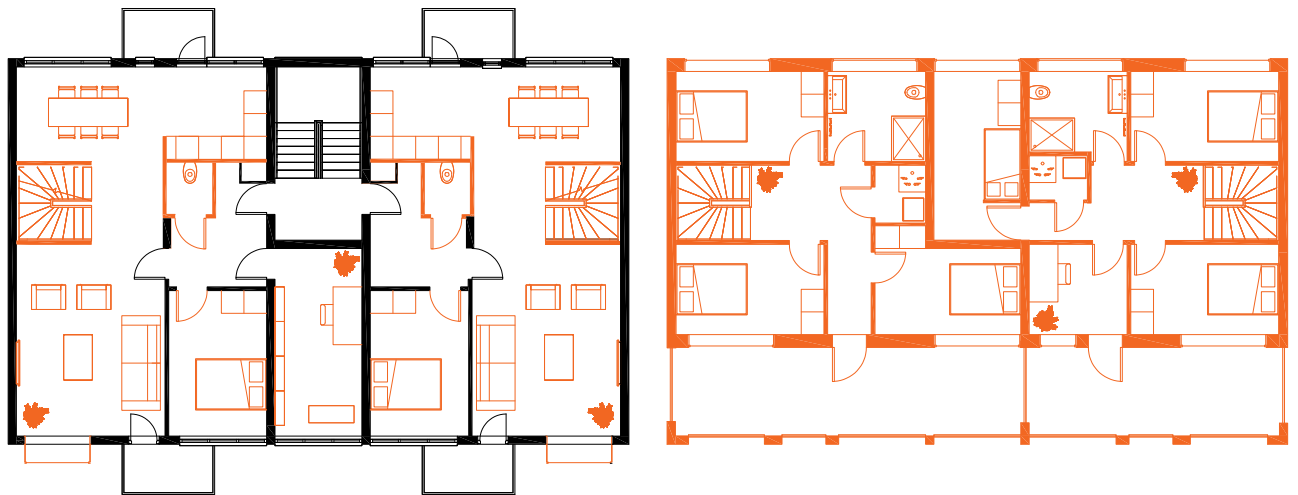


Figure 9. Regenerate; Floor plans of the topping up. Scale 1:200 Own images.

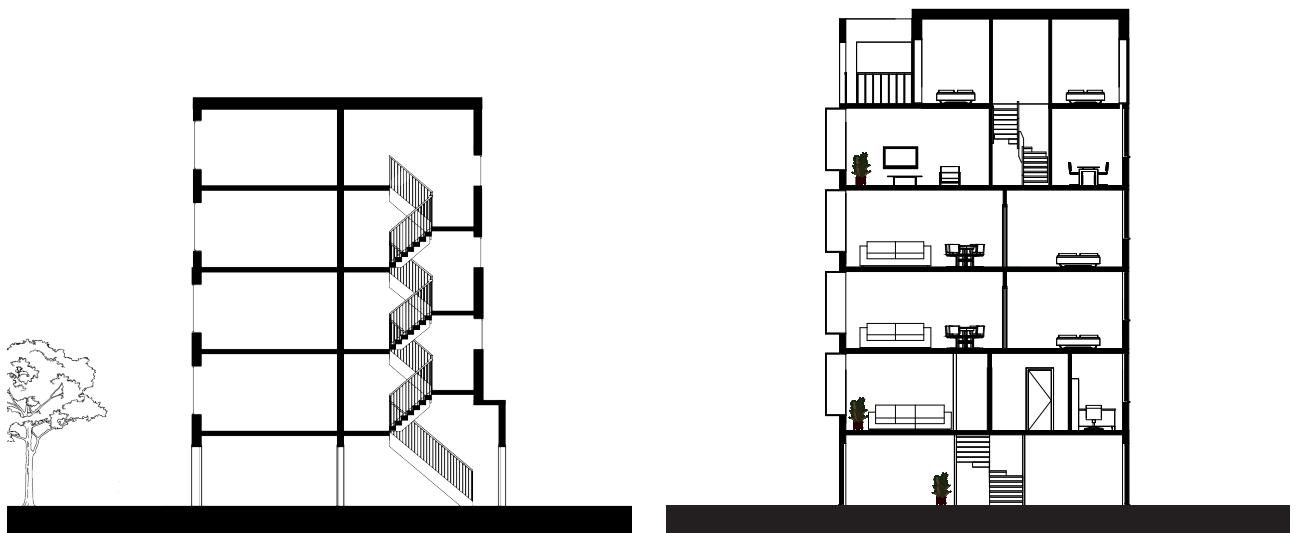


Figure 10. Regenerate; new sections with the additional volumes. Scale 1:200 Own images.



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