> Introduction
Rotterdam, Lombardijen, 1960. A brand new neighborhood is being built in the very south of Rotterdam. Based on revolutionary ideas and principles on the structure of society, more than 6,000 houses are being constructed. "De Wijkgedachte", which had been created about 15 years before is being used to organise this large new area, tempting to create a new balance between the individual and the collective.

Rotterdam, Lombardijen, 2012. More than fifty years later, the balance between individual and collective has moved. The ideas on society and society itself have changed significantly. What remains of "De Wijkgedachte" is a built framework that does not seem to fit the time anymore. Or does it? What is the relationship between individual and collective in the current neighborhood? What are the problems to be solved? How can we use "De Wijkgedachte" in 2012?

This designing research shows possible ways to think and design on these kind of post-war area’s, not only to preserve this important layer in the history of the city but above all to create a better living environment, which is ready for the future.

> Structure
This book consists of four main parts. It starts with a paper on the area and the research that was done. This is followed by an impression of the area (and it’s problems) in images.

The main part of the book is the handbook with solutions. The method of this handbook is first explained and is followed by an overview of tested generic design solutions and their evaluation, illustrated by design drawings and images. The book finishes with an overview of these solutions and their use and some conclusive schemes.
DE WIJKGEDACHTE 2012
> COLLECTIVITY AND INDIVIDUALITY IN MOLIÈREBUURT WEST

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COLLECTIVITY AND INDIVIDUALITY IN MOLIÈREBUURT WEST
Molièrebuurt West is one of the seven neighbourhoods of Lombardijen that are linked around the central Spinozapark. Situated west of Homerusbuurt and Molièrebuurt Oost, Molièrebuurt West is the third neighbourhood south of the Spinozaweg which divides Lombardijen horizontally. Among these three neighbourhoods, Molièrebuurt West stands out. Most of Lombardijen, and more obviously the southern part, has for financial reasons not been executed according to the urban design of Van Drimmelen and has turned into monotonous architecture with high densities.

“Van Drimmelen merkte in 1963 op dat: “financiële motieven te veel tot zuinige en monotone architectuur hebben geleid en plaatselijk tot te hoge dichtheden”. (…) Zuinige en monotone architectuur en plaatselijk hoge dichtheden zijn vooral in het zuidelijk deel van Lombardijen te vinden.”

Repetitions of similar housing blocks seem endless. The division in architecture between different neighbourhoods is not as clear as Van Drimmelen had suggested, giving most of the south of Lombardijen the same appearance. Molièrebuurt West is an exception. Instead of the monotonous and endless repetitive housing blocks, a rich diversity of different facades surrounds the streets. Suddenly all front doors are different and a wide spectrum of colors and patterns can be seen.

To understand why this neighbourhood stands out we have to look at the ownership of the houses. In Lombardijen as a whole, 70% of the houses are rental houses, which leaves only 30% of privately owned houses. In Molièrebuurt West 100% of the houses are privately owned. This is an essential difference compared to the other neighbourhoods. But how did this difference in ownership cause such a difference in aesthetics and scale? How did private ownership influence this neighbourhood? And what does this mean for future interventions?
Individuality

The housing in Molièrebuurt West consists of low-rise family houses with two floors and 5 floor porch apartment buildings. Other than in the other neighbourhoods of the south of Lombardijen, where only a few architects are responsible for all the housing blocks, Molièrebuurt West was designed by six architects. Most blocks were designed by Jos de Jonge and his son Leo de Jonge. From the moment the neighbourhood was built, the differences in architecture must have made this neighbourhood stand out. A lot has changed since then.

To understand the influence of the individual owners on the changes of the neighbourhood, the original drawings made by the architects have been compared to the current situation. Since the insides of the houses do not have a direct influence on the neighbourhood as a whole, the comparison focuses on the changes that are visible on the outside of the buildings; The changes in the facades and gardens have been researched, as well as the addition of extensions.

When we compare the original drawings with the current situation we can see large differences. Especially the ground based family houses have made a total transformation in which the original architecture from the late nineteen-fifties is rudimentarily recognisable: 50% to 100% of the front facades has been changed, 10 to 30% of the original surface of the blocks has been added in extensions on the side, behind and/or on top of the buildings and only 5 to 25% of the houses still has the original facade. Because of the structure of the buildings, the family houses have a large adaptable surface. The fact that there are mostly no constructive parts in the facades and that the floors, facades and roof are made of a timber construction, means that a lot of adaptations can be made without compromising the structure of the house. People have used this opportunity to adapt the houses to their personal demands, by extending and altering over the years. By doing this, owners have added their personal value in these houses and their gardens, altering the appearance of the street drastically. Instead of anonymous repetitive architecture and the unit of the block, each individual house has become a separate entity. The collectivity of the post-war period seems to have diminished and turned into a world of individuality.

The question rises if an intervention in these blocks is necessary. Because of the huge alterations to the buildings, we cannot talk about the blocks in terms of sixties architecture anymore. The cultural value as such does not lay in the preservation of sixties architecture. The value lies much more (if not only) in the added individual identity of each individual owner. The feature of ever changing different facades has become the most important characteristic of these housing blocks. We may think of these blocks as ugly or incoherent, but there is no real problem here. If we would interfere, what then is the added value, if the value mainly or only lies in the added individual value? The houses offer enough adaptation opportunities to suit...
the owner’s needs. Besides, the inhabitants probably appreciate this diverse image above the boring repetition as can be seen in the eastern part of Molièrebuurt. In any case, only few of these houses are for sale and people seem to stay. These blocks therefore seem ready for the future and need no urgent intervention.

> Collectivity

The porch apartment buildings have almost an opposite situation. The influence of private ownership on the outside of the apartment buildings is minimal, compared to the family houses. No extensions have been made and no or minimal individual value has been added. Only two blocks have a new insulating facade, altering the facade completely but not adding any individuality.

The reason for this minimal influence must also here be sought in the used materials and the building structure. Because of the big amount of brickwork in the facade and the stone and concrete construction, only 50% of the facade is easily changeable. Extensions and alterations to the construction are difficult, as is insulating the structure.

People did change or replace window frames and by doing that changed 30% of the facade but because of the strong layer of brickwork that determines the appearance of the building, the architectural impact is low. Unlike the family houses, individuality has not prevailed. The blocks remain highly collective.

The high collectivity of the buildings seems to have lead to problems. The buildings are in a poor state. Different owners are joined in collectives of owners, which makes decision making difficult. The responsibility of different owners for the same building has lead to a neglecting of maintenance. The bad maintenance has even resulted in the demolishing of four of the apartment blocks in 2003. Until today the ground these buildings stood on is empty.

An intervention seems to be necessary. The apartments are mostly small, the buildings poorly taken care of, lack identity and offer much less opportunities to adapt to the individual owners needs. Not surprisingly, many of these apartments are for sale. Because of the collective of different owners, demolition is neither desirable nor possible but that doesn’t mean that the value to the individual owner is the only remaining value of these dwellings. The untouched fifties architecture is not exemplary and so the value should probably not be sought in the architecture itself. The value of the apartment blocks and their gardens must be seen on the urban scale. In the whole of Molièrebuurt West and in the patchwork of different family houses the apartment buildings have a function of stability. In scale they give counterweight to the small scale of family houses and offer a framework in which the family houses can exist without falling apart into a chaotic individuality. Therefore an intervention is not only necessary for the condition of the buildings, moreover an intervention is essential for the neighbourhood.
> Molièrebuurt West and ‘De Wijkgedachte’

Characteristic for Molièrebuurt West is that it is the only neighbourhood in Lombardijen in which the mixture of low-rise (family houses) and middle-rise (porch apartment buildings) as designed by Van Drimmelen and suggested by ‘De Wijkgedachte’ has been executed. This unlike the other neighbourhoods in which the low-rise and middle-rise are more concentrated and isolated from each other. This mix of middle and low-rise, one could say, has worked for Molièrebuurt West and is now the most important characteristic of the neighbourhood.

Unfortunately, the ideas of ‘De Wijkgedachte’ theory have also caused problems in today’s situation. The theory was designed as a hierarchical structure of social units in which daily life could take place and different scales of communities were pursued. Every social unit had its own specific functions and count of inhabitants. This system of social units was then quite literally translated into an urban layout in which these activities should take place. With the hope and belief that the communities as designed would arise in this geographical framework.

In the fifty years that past, life has changed a lot and demands have changed drastically. Certain social functions of the neighbourhood have disappeared and people live their lives in different and far more diverse ways. As a result, the social framework that was designed fifty years ago does not answer to today’s demands and therefore does not fully exist anymore. What remains is a geographical framework or skeleton of “De Wijkgedachte”.

It is questionable whether or to what extend the theory has ever worked in practice. Already in the fifties, before Lombardijen was constructed, the Rotterdam based professor J.A.A. van Doorn had large doubts about the connection between the theory and reality.

“De stad kenmerkt zich ten opzichte van het platteland, aldus Van Doorn, door een grote mobiliteit, migratie en een snelle wisseling van levensstijl en beroep. deze factoren zouden het tot stand komen van de wijkgedachte door een grote mobiliteit, migratie en een snelle wisseling van levensstijl en beroep. Deze factoren zouden het tot stand komen van de wijkgedachte, waarin het ‘gemeenschappelijke’ voorop staat, onmogelijk maken. De wijkgedachte sloot daarom in het geheel niet aan bij de maatschappelijke werkelijkheid.”

He states that this theory based on social communities could not answer to the speed of life in the city and therefore did not reflect reality. He also names heterogeneity of the new inhabitants of the neighbourhoods as a factor against ‘De Wijkgedachte’. In 1965, Van Doorn theorems are further confirmed by research about church communities in the urban community, executed in Hoogvliet and Spijkenisse.

“Onder territoriale kaders verstaan we straten, flatblokken, gehele wijken; in al deze gevallen blijken bindingen en identificaties in het algemeen niet voor te komen. (…) Van samenhang of buurtbesef is weinig te bespeuren. Voor de kleinere territoriale kaders: de straat, de flat, de ‘trap’ geldt hetzelfde. Men is geenszins geneigd om op grond van het geografische bij elkaar horen allerlei sociale bindingen te aanvaarden; de contacten worden voornamelijk in het functionele vlak van de publieke sector gehouden; een grotere betekenis, in de zin van afbakening van een privé-sector, heeft de territoriale samenleving niet.”

This research concludes that social binding does not appear to be related to geographical territories like streets, buildings and neighbourhoods. Contacts are mainly made in the functional part of the public sphere and over cross different territories. Whether or not the theory has ever worked, the changes in the current social sphere cause problems, mainly in the collective spaces. The communal gardens have lost their function and are merely grass fields that are not being used or maintained, which gives these public spaces a bad atmosphere. The connections between the different units or scales are badly designed and hard: Entrances to the buildings are dark and low, entrances to houses are directly connected to the staircase without any buffer and there is no direct connection between the buildings and their gardens, which only enhances the problems of the gardens. As a result of ‘De Wijkgedachte’ theory these transitions and units have become too forced.

Inhabitants recognise these problems and are by far not satisfied with the collective spaces. They are most unhappy with the state of the staircases and gardens. They do seem to be happy with their own apartments, but in general do not live there with large families anymore. This has resulted in a lower count of children that use the communal garden for whom it was originally designed. A desire for a large individual expression and adaption like is the case with the family houses is not obvious but people are prepared to invest in both their apartment and building and stay for a longer period of time (10-20 years). This means that there is a will to prepare these buildings for the future.
Wijkgedachte 2012; three experiments
As a conclusion of the previous we can note a contradiction. Collectivity i.e. the collective buildings are on an urban scale essential for the neighbourhood as they form a stable counterweight to the high individuality of the low-rise family houses. At the same time the collectivity i.e. the collective spaces are the problem on the building scale. This contradiction sets the most important guideline for an intervention; the collective problems must be solved but the collective cannot be completely removed. This means that there are two options; the collective has to be improved or the collective has to be reduced by improving the individual.

To test both approaches and their impact on both the individual, the collective and ‘De Wijkgedachte’ framework, three design experiments can be executed.

1. Improve the collective
   Perhaps the most realistic way to answer to the demands of the neighbourhood, buildings and owners is to improve the collective space. In this experiment the individual apartments stay unchanged. The impact of the improved collective on the individual owner is the main goal.

2. Improve the individual
   A more experimental and less realistic approach is improving the individual apartments and by doing that reducing the collective. Taking away the problem rather than fixing it. The goal here is to reduce the problems to a minimum without solving them directly, as is the case in experiment 1.

   This experiment answers to the demand of designing on the empty plot in the neighbourhood. How to build in the ‘Wijkgedachte’ framework today? Using the solutions from the first two experiments, the goal is to redefine what the ‘Wijkgedachte’ can mean for the neighbourhood today.

Conclusion
Private ownership has had a huge impact on Molièrebuurt West. It has transformed the collectivity of the family houses into a world of individuality, changing the appearance of the street completely. A lot of personal value has been added. For the apartment buildings the opposite is true. Collectives of owners have caused these buildings to be badly looked after and poorly maintained. The buildings did not allow the individual owners to add personal value. The result is that the high level of collectivity is maintained but in a bad condition, giving a negative influence on the individual.

Private ownership is not the only reason why the neighbourhood is in its current state. The ideas of ‘De Wijkgedachte’ theory do not answer or maybe have never answered to the current demands, causing certain social units to be without function and leave it to be a mere geographical framework. The transitions between the different scales of the framework prove to have been poorly designed, causing problems in the collective.

The ‘Wijkgedachte’ idea of mixing different kinds of housing i.e. low-rise and middle-rise did have a positive influence on the neighbourhood. It gave an answer to the changes that private ownership had caused and kept the scale of the neighbourhood stable.

Designing three experiments with a different approach to solving the problems stated can give insight into the different solutions of revitalizing the ‘Wijkgedachte’ framework and even redefine what the theory can mean for the neighbourhood today. In this way the mere skeleton of the framework of ‘De Wijkgedachte’ that it is today, can be transformed into ‘De Wijkgedachte 2012’.

Notes

2. Jos de Jonge (1887-1965) and Leo de Jonge (1919-2009). These Rotterdam based architects were very active during the post-war period and designed multiple housing blocks in Zuidwijk, Lombardijen and Hoogvliet.
5. Online inquiry among the inhabitants of the apartment buildings in Marsmanstraat and Miltonstraat Rotterdam. Executed December 2011.
> Method

This handbook will show generic design solutions for post-war housing areas. The problems that came forward through analysis of the research area in Lombardijen are:

1. **Safety issues**
   Lack of use and bad accessibility have led to unsafe spaces.

2. **No clear responsibilities**
   The neglect of maintenance suggests that it is not clear or obvious who has to take responsibility.

3. **Lack of use of the collective space**
   The collective spaces are not being used enough, making them leftover spaces.

4. **Bad accessibility**
   The collective gardens are badly accessible. The route to the apartments are dark and without quality.

5. **No individual value expression**
   The value that has been added on the inside of the apartments is hardly or not visible on the outsides, making these buildings highly anonymous.

6. **Bad spatial quality**
   The quality of the spaces in general is not good and needs attention.

These problems have been attempted to solve through two experiments.

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Within these experiments, a total of sixteen (eight for each) generic solutions have been designed and tested in two separate contexts. These solutions were based on the needs of the context and theory, solving different problems and serving different goals. The qualities, but also the consessions and weaknesses of each solution were then noted.

Each solution was then evaluated by looking at their impact on the stated problems in both the collective and individual space. In this way the influence of collective solutions on the individual can be seen and versa. An assessment for which owner (individual, collective of owners, housing corporation) the solution is suitable was then done. For each solution, recommendations were then made.

The solutions were then compared, based on their evaluation and suitability for owners and organised. In this way a clear overview of the solutions and their specific benefits could be made for owners to use.
PROBLEMS IN CONTEXT

- Safety issues
- No clear responsibilities
- Lack of use collective space
- Bad accessibility
- No individual value expression
- Bad spatial quality

GENERIC SOLUTIONS

TEST IN CONTEXT

- Experiment 1
- Experiment 2

EVALUATION

- Design 1
- Design 2
1.1 MAKE READABLE TERRITORIES

> PROBLEM
- It is not clear who owns the collective space, which has led to a lack of responsibility and a neglect of maintenance, giving a negative influence on the safety of the neighborhood.

> GOAL
- Make a clear and readable division in ownership. Add a sense of belonging, responsibility, and safety.

> PRINCIPLE
- This solution is a way to reuse the idea of having clear different scale levels as described in De Wijkgedachte. By better defining these territories on different scales and by making them readable for both inhabitants and visitors, the problems with ownership and responsibility of the collective space can be solved.

> APPLICATION IN CONTEXT
- By using different materializations and buffer zones, the territories have been set. No big fences have been used, but strangers will not likely feel invited to enter the territory.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- There is a loss of public space. Passers do not enter the territory anymore, only inhabitants and visitors.
- A bigger, more complex and active collective of owners is needed to ensure the maintenance of different territories on different scale levels.

> RECOMMENDATIONS
- A new way of organizing a collective of owners is required. This collective of owners is not only responsible for the porch or building but also a shared collective territory. Just like the different scale levels in geography, the collection of owners should have different levels of scale: the porch, the building, the ensemble of buildings, and maybe even a collection of ensembles or the whole neighborhood.
EXPERIMENT 1

> IMPROVE THE COLLECTIVE
> DESIGN
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> EVALUATION

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individual

collective of owners

housing corporation
1.2

INVOKE FAMILY HOUSES IN THE TERRITORY

> PROBLEM
The collective garden is not connected to the low rise family housing. The inhabitants of the family houses do not or rarely use the garden.

> GOAL
Create a larger community as originally designed according to the ideas of De Wijkgedachte to stimulate use of- and benefits from the collective space.

> PRINCIPLE
This solution is an extension of the first solution and tries to merge two different typologies into the territory of the ensemble of buildings by opening up the existing division.

> APPLICATION IN CONTEXT
In this context this solution was not applicable.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- It is hard to really connect the family houses to the territory since they are naturally oriented to the outside of the territory. The layout of these houses would have to be changed, which is no part of this experiment.
- The real benefits are not clear. The owners of these houses will not likely want to invest in the communal garden if their benefits are not obvious.

> SOLUTION FOR

> RECOMMENDATIONS
Although this solution can help solving the set problems, it has proven to be hard to realize in the specific context. In another context where the orientation of the houses is more opportune or in a case when the houses can be converted as well, the solution may very well work.
1.3

MOVE PARKING SPACES INTO THE TERRITORY

> PROBLEM
There is a high parking pressure in the neighborhood and there is a lack of use of the collective
garden.

> GOAL
Lower the parking pressure of the neighborhood and get the parking spaces within the territory.

> PRINCIPLE
The replacement of communal gardens for parking spaces. The parking spaces are meant for the
inhabitants around the communal garden.

> APPLICATION IN CONTEXT
The parking spaces have been applied in a half deep basement with a community deck as described
in solution 1.4. The parking lot is not accessible for outsiders and offers enough spaces for the
apartment buildings. A space has been left between the buildings and the parking spaces to ensure
the privacy of the apartments.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- Communal green space gets lost, having a negative influence on the spatial quality
- Cars are more in sight, also having a negative influence on the spatial quality as well as privacy
  and possibly safety.

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> SOLUTION FOR

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> RECOMMENDATIONS
Adding parking space within the communal gardens can only contribute to a better living
environment when they are carefully designed to ensure the spatial quality and privacy. This can
either be done by better designing the parking spaces themselves or by hiding them underneath for
instance a community deck as explained in solution 1.4.
1.4 MAKE A COMMUNITY DECK ABOVE PARKING

> PROBLEM
The added parking spaces in the communal garden take in too much space. This has a negative influence on both the required routing space, privacy and spatial quality.

> GOAL
Bring back usable space taken by the parking space for routing and activities with an attractive appearance without taking away the buffer between public and private.

> PRINCIPLE
The solution is a consequence of the previous solution in a context where there is no space for a sufficient amount of parking spaces and to ensure the spacial quality and quantity. The lost space is brought back on top of the parking spaces in the form of a community deck that provides space for both routing and activities.

> APPLICATION IN CONTEXT
The deck is built upon a half deep parking basement to ensure privacy and light for the ground floor apartments. Large holes have been carved out to ensure enough natural light in the parking spaces. One large entrance provides access from outside the community and one stairway provides access from the parking level to the community deck, leading everyone across it.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- The deck might not be used other than as a routing space. Space for activities might not be used.
- The apartments are more exposed, as well as their balconies. This lowers the amount of privacy.
- The parking spaces have the threat to have a bad atmosphere and could be experienced unsafe.

> SOLUTION FOR

> RECOMMENDATIONS
To build a half deep parking lot with a community deck above as suggested here will be very costly and probably not possible in the current ownership structures. New ways of structuring ownership and financing such an intervention would be necessary.
1.5 

MOVE ENTRANCES TO THE INSIDE

> PROBLEM

The communal garden is not being used well because there is no access from the collective garden to the apartment buildings. The entrances are located on the outside of the perimeter, which forms a problem when activities like parking and routing are placed to the inside of the ensemble.

> GOAL

To enter the apartment buildings easily from the inside of the territory, increasing the use of the collective space and the accessibility of the buildings.

> PRINCIPLE

The addition of entrances on the side of the communal garden, on the inside of the ensemble.

> APPLICATION IN CONTEXT

In the specific context the new entrances provide a connection between the newly created community deck and the porches on the inside of the ensemble.

> CONCESSIONS/WEAKNESSES IN CONTEXT

- The former front side (streetside) becomes a backside because of the solution. However, this side is still the face of the neighbourhood, making this a vulnerable side that needs designing even though it is not part of the solution.

> SOLUTION FOR

- Individual
- Collective of owners
- Housing corporation

> RECOMMENDATIONS

When the entrances are replaced to the inside of the ensemble, the outside becomes less used and vulnerable. In a single case this is no large problem. If the solution is applied to more ensembles in for instance a complete neighborhood, the problems might move to the outsides of the ensembles. This creates islands and is not desirable. Designing the streets in a good way becomes essential.

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1.6 CREATE NEW STAIRCASES

> PROBLEM

The staircases of porches are very dark and don’t have spatial qualities, leading to safety issues. The porches are not clearly defined as an entity.

> GOAL

Make new entrances on the inside of the ensemble possible and add spatial quality to the porch. Add a sense of responsibility and belonging.

> PRINCIPLE

To create a clearly definable new staircase with better spatial qualities. This both defines the porch as an entity and creates a relationship between the porch and the ensemble.

> APPLICATION IN CONTEXT

In the context large glass staircases have been created on the inside of the ensemble. This clearly defines the new entrances and creates a visual relationship between the porch and the community deck. The materialisation of glass, wood and steel gives an attractive atmosphere which will add to the value of the apartments and to the sense of belonging and responsibility.

> CONCESSIONS/WEAKNESSES IN CONTEXT

- The construction of the building has to be reinforced to make the intervention possible.
- The balconies of the apartments are situated next to the staircases, making them more exposed, which leads to privacy issues.

> RECOMMENDATIONS

Making a new staircase can bring extra benefits for the individual when a solution like 1.7 is taken into the design.
1.7
CREATE A BUFFER ZONE BETWEEN PORCH AND APARTMENT

> PROBLEM
The connection between porch and apartment is very hard. The doors of the apartments are situated in the routing of the stairs.

> GOAL
Create a smoother transition between porch and apartment.

> PRINCIPLE
To create a buffer zone between the porch and the apartment. A zone where the owner can put something personal like a plant or simply a door mat. This zone functions like a micro version of a front garden in a family house and marks the transition from (semi) public to private.

> APPLICATION IN CONTEXT
In the context, the new staircases have been moved slightly to the outside of the building, creating space between the staircase and the apartment entrances. This space is seperated from the staircase only by half high walls, giving owners the opportunity to claim this space and use it as they wish.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- The buffer space is situated quite deeply in the portiek and is quite dark. It therefore needs extra attention in designing. Artificial light and light materialisations and colors are essential to make this space have good spatial qualities. Otherwise the space might turn into a threat instead of a benefit.

> RECOMMENDATIONS
The atmosphere of the buffer space will be essential and should be carefully designed to not make it a threat instead.
1.8 CREATE A COMMUNITY BUILDING

> PROBLEM
There is no specific space to have meetings for the collective of owners or to house other communal activities for the ensemble of buildings.

> GOAL
To have a symbol of belonging and a place to discuss communal issues.

> PRINCIPLE
This solution is to have a building for meetings and collective activities that at the same time is a symbol for the community.

> APPLICATION IN CONTEXT
A community building has been placed in the middle of the territory on the community deck. The walls are made of glass to ensure a maximum transparency. Two big doors connect to the deck that can be used for activities related to the building.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- The building might only be used for meetings of the collective of owners.

> SOLUTION FOR

> EVALUATION

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• The building could very well be rented out for other groups in the neighborhood that could have a use for it.
• This building would work in a single case. One of such buildings would be enough for a neighborhood.

> RECOMMENDATIONS
## INFLUENCE ON COLLECTIVE SPACE

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## INFLUENCE ON INDIVIDUAL SPACE

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Experiment 1; evaluation

The first experiment had the goal to improve the collective space and have an impact on the individual space. When we look at both the influence on the collective and individual of all the solutions together we see that there is a positive influence on both. Since no improvements were made to the individual space, this means that the improvements of the collective space have had a positive influence on the individual space. The influence on the individual is not as big as the influence on the collective, but especially on functional aspects, well noticeable.

If we look at the impact on the different problems we can see that the problems that have to do with function; use and accessibility have had the biggest improvement, as well as the safety and level of responsibility. The collective improvements have, not surprisingly, had the lowest influence on the individual spatial quality and expression.

Although the solutions have a positive influence on the individual, they are almost all only applicable by collectives of owners and housing corporations. Individual owners will not likely want to invest in the collective space on own initiative, except when it has very direct benefits like the creation of a buffer zone between collective and individual, like solution 1.7 shows.

In conclusion we could say that improving the collective space has a good influence on both collective and individual but in order to improve the individual expression and spatial quality, other measures in the private sphere will be necessary.
1.1 Make readable territories
1.2 Involve family houses in the territory
1.3 Move parking spaces into the territory
1.4 Make a community deck above parking
1.5 Move entrances to the inside
1.6 Create new staircases
1.7 Create a buffer zone between porch and apartment
1.8 Create a community building
EXPERIMENT 2

> IMPROVE THE INDIVIDUAL
2.1 MERGE APARTMENTS

> PROBLEM
There are too many apartments of a too little size. Many small apartments are for sale and the collective space is shared by too many people.

> GOAL
Reduce the amount of users of the collective space and create bigger apartments.

> PRINCIPLE
To merge two smaller apartments into one larger. Have less entrances in the porch.

> APPLICATION IN CONTEXT
The building in this context has five floors and eight apartments per portiek. The ground floor is extended and gets a separate entrance. The four floors above are transformed into two maisonettes. Every portiek now has four, instead of eight front doors.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- It has been proven to be virtually impossible to have no porch at all, so the weak typology remains.
- The individual apartments have been improved but the number of individuals is lower.

> SOLUTION FOR

> RECOMMENDATIONS
This solution is only possible when the whole building is bought, transformed and sold again. This is why this solution will only be possible for corporations. If a collective of owners or an individual would want to merge, this will be possible in another form.
> PROBLEM

The apartments have very small balconies. The communal garden is an extension of their private outside space but is not being used as such.

> GOAL

To create larger private outside spaces, to replace the communal garden.

> PRINCIPLE

Create large roof gardens on the building and private gardens in the communal garden, linked to the apartments.

> APPLICATION IN CONTEXT

The ground floor apartments get a private garden in the space of the communal garden. The first floor apartment gets a roof garden on top of the newly built extension. The third floor maisonette gets a roof terrace.

> CONCESSIONS/WEAKNESSES IN CONTEXT

• The outside spaces are quite exposed to one another, especially from above.

> SOLUTION FOR

- individual
- collective of owners
- housing corporation

> EVALUATION

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> RECOMMENDATIONS

The simplest form of this solution, namely adding private gardens to the ground floor apartments can easily be applied, even by individuals and is already being applied in the neighborhood by one of the collectives of owners.
2.3 FILL THE COLLECTIVE GARDEN WITH HOUSING

> PROBLEM
The collective space is not being used and is badly maintained, making it a threat for the neighborhood.

> GOAL
Make the collective space individual.

> PRINCIPLE
To fill the collective garden with newly built housing with gardens.

> APPLICATION IN CONTEXT
In this context ground based one level patio houses fitted best. This typology suits best for elderly. Six of these houses have been designed on a new entrance path which is not accessible for cars. The houses have been limited to one floor and given a green roof to not disturb the existing housing.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- The orientation of the patio houses is weak. Cars cannot reach the houses and the entrances of the houses are facing the back gardens of the apartment buildings. This means that the back of the apartment gardens need (collective) designing.

> SOLUTION FOR

> RECOMMENDATIONS
Collectives of owners should be able to develop their own collective garden and get permission to build there.

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2.4.1 OWNERS CHOOSE OWN WINDOW FRAMES

> PROBLEM
The apartment buildings look very rigid and anonymous. The individual value that owners have created in their apartments can hardly be seen from the outside.

> GOAL
Create a less anonymous and more diverse image on the outside of the building.

> PRINCIPLE
To show individual value on the outside of the building by breaking through the rigid and collective design of the building.

> APPLICATION IN CONTEXT
During construction the window openings will remain open. The new owners can choose and apply their own window frames without any limitations.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- This intervention by itself does not break through the strong collective architecture and does not have a huge effect on the individual expression.
- In practice an amount of the houses will not be sold right away and be filled with window frames by the contractor.
- It will be cheaper to arrange the window frames within the collective of owners.

> SOLUTION FOR

> RECOMMENDATIONS
This solution needs to used in combination with a solution like 2.4.5 to have effect.

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OPEN PARTS FACADES FILLED BY OWNERS

2.4.2

> PROBLEM

The apartment buildings look very rigid and anonymous. The individual value that owners have created in their apartments can hardly be seen from the outside.

> GOAL

Create a less anonymous and more diverse image on the outside of the building.

> PRINCIPLE

To show individual value on the outside of the building by breaking through the rigid and collective design of the building.

> APPLICATION IN CONTEXT

During construction parts of the facade will remain open from floor to floor. The new owners can design and apply their own facades with full freedom.

> CONCESSIONS/WEAKNESSES IN CONTEXT

- In practice an amount of the houses will not be sold right away and be filled with a standard facade by the contractor.
- In some cases this solution can give a messy whole and the framework wherein these facades can be applied should thus be very rigid and strong.
- The main entrances to the porch become less clear.

> EVALUATION

INDIVIDUAL

Social
- Safety: +
- Responsibility: 0

Functional
- Use: +
- Accessibility: 0

Architectural
- Expression: +
- Spatial quality: 0

COLLECTIVE

Individual

Collective of owners

- +

Housing corporation

- 0

> SOLUTION FOR

- Individual
- Collective of owners
- Housing corporation

> RECOMMENDATIONS

This solution is only possible with a very rigid framework and works best on the ground floor where a direct relationship with a garden is possible.
2.4.3
OWNERS CHOOSE THEIR FENCES

> PROBLEM
The apartment buildings look very rigid and anonymous. The individual value that owners have created in their apartments can hardly be seen from the outside.

> GOAL
Create a less anonymous and more diverse image on the outside of the building.

> PRINCIPLE
To show individual value on the outside of the building by breaking through the rigid and collective design of the building.

> APPLICATION IN CONTEXT
During constructing the private outside spaces are left without separations. The new owners can choose and apply their own fences and other separations.

> CONCESSIONS/WEAKNESSES IN CONTEXT
- In practice an amount of the houses will not be sold right away and be filled with a standard separation by the contractor.
- Unlike in the facade, there is no strong framework in between the different fences, making the whole somewhat messy.

> SOLUTION FOR

> EVALUATION

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- safety
- responsibility

FUNCTIONAL
- use
- accessibility

ARCHITECTURAL
- expression
- spatial quality

> RECOMMENDATIONS
This solution needs to used in combination with a solution like 2.4.5 to have a better effect.
2.4.4 APPLY CHANGEABLE FACADE MATERIALS

> PROBLEM

The apartment buildings look very rigid and anonymous. The individual value that owners have created in their apartments can hardly be seen from the outside.

> GOAL

Create a less anonymous and more diverse image on the outside of the building.

> PRINCIPLE

To show individual value on the outside of the building by breaking through the rigid and collective design of the building.

> APPLICATION IN CONTEXT

A wooden facade cladding has been applied on both the sheds and extensions on the roof. In time this cladding can be changed by the owners. In a longer time span this intervention will lead to a diverse image with a more individual expression.

> CONCESSIONS/WEAKNESSES IN CONTEXT

- Changing the facade materials could bring damage to the detailing and physical structure of the building.

> SOLUTION FOR

- Individual
- Collective of owners
- Housing corporation

> EVALUATION

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> RECOMMENDATIONS

The structure has to be designed and detailed in a way that it won’t be compromised by changing the cladding. Changing the cladding should have no effect on the physical performance of the structure.
plaster board 12.5 MM
daMp-proof course
wooden frame with insulation 170 mm
Multiplex boarding
water-proof course
hard wood cross-beam
changeable cladding
concrete tiles
stilts
insulation 120 mm water proof
roll-roofing
daMp-proof course
existing system floor
setting block
steel support beam
2.4.5
DESIGN “SHOPPING WINDOWS”

> PROBLEM
The apartment buildings look very rigid and anonymous. The individual value that owners have created in their apartments can hardly be seen from the outside.

> GOAL
Create a less anonymous and more diverse image on the outside of the building.

> PRINCIPLE
To show individual value on the outside of the building by breaking through the rigid and collective design of the building.

> APPLICATION IN CONTEXT
Solutions 2.4.1 - 2.4.4 have the weakness that they hardly break through the rigid brick original architecture. Designing architectural elements as a layer in front of this rigid architecture is essential. In this context rigid concrete frames have been placed at the location of the new staircases that link the merged floors of the apartments. Four different frames have been composed over the facade.

> CONCESSIONS/WEAKNESSES IN CONTEXT
• This intervention is collectively designed and not necessarily the wish of the individual owners.

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> SOLUTION FOR

- individual
- collective of owners
- housing corporation

> RECOMMENDATIONS
The frames should be made of a rigid material like concrete in this case to protect them from being removed.
insulating glass
prefab concrete frame
aluminium window frame
schüco aws 65 M c
varnished multiplex
pressure proof insulation
anchorage
plaster board 12.5 MM
damp-proof course
metal stud with insulation 90 MM
existing inner wall
existing cavity 40 MM
existing masonry
brio plaster board 18 MM
wood fiber board 10 mm
existing finish floor
existing system floor
adjustable steel anchorage
existing concrete console
lead coverage
sealing
hidden steel anchorage
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Experiment 2; evaluation

The second experiment had the goal to take away the problems in the collective space, not by solving them directly but by improving the individual space. When we look at the evaluation of the influence on the individual space, we can see that the solutions have had a positive influence. Especially the individual expression and spatial quality have been improved, as well as the individual responsibility which is triggered by the individual expression. The individual accessibility has not improved much as a result of the very rigid typology.

The influence on the collective space is much less. The individual improvements have hardly any effect on the collective safety and responsibility, some positive effect on the use and accessibility and a negative effect on the spatial quality and especially the collective expression. This negative effect on the collective expression could weaken the block as an element in the neighborhood. The block now, together with the other apartment buildings, offers a stable framework in which the family houses are kept from falling apart. If the apartment block itself is also going to fall apart, this would have a negative influence on the neighborhood as a whole.

Although the solutions are mainly designed for individual owners to apply, they are almost all also applicable by collectives of owners and housing corporations. Big improvements of the individual space, like merging and the building of new houses in the collective garden, can not be applied by individual but can be very suitable for housing corporations.

In conclusion we can say that the improvements in the individual space can be good solutions, but can only be applied when improvements in the collective space are also made. Only then a healthy and sustainable neighborhood can be obtained.
2.1 MERGE APARTMENTS
2.2 ADD PRIVATE OUTSIDE SPACES
2.3 FILL THE COLLECTIVE GARDEN WITH HOUSING
2.4.1 OWNERS CHOOSE OWN WINDOW FRAMES
2.4.2 OWNERS CHOOSE THEIR FENCES
2.4.3 OPEN PARTS FACADES FILLED BY OWNERS
2.4.4 APPLY CHANGEABLE FACADE MATERIALS
2.4.5 DESIGN “SHOPPING WINDOWS”
There are some differences between the outcomes of the first and the second experiment. Whereas the first experiment mainly has a positive influence on the social and functional problems of the collective space, the second experiment mainly has a positive influence on the architectural problems in the individual space.

In the first experiment, the goal was to improve the collective space and see the influence on the individual space. As we can see, this influence on the individual space is positive, mainly on the functional level.

In the second experiment, the individual space was improved to take away the problems in the collective space. The solutions in this experiment have had little or no positive influence on the collective space, even a negative influence on the collective expression and spatial quality.

A conclusion we can draw from this is that improving the collective space has most influence on the neighborhood. Only improving the individual does not help the collective space and can even lead to new problems. A smart combination of both collective and individual measures will have the best effect.
### Make Readable Territories

**1.1**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - individual
  - collective

- **In:**
  - individual
  - individual
  - collective space

### Involve Family Houses in the Territory

**1.2**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - coll. of owners
  - housing corp.

- **In:**
  - individual
  - collective space
  - housing corp.

### Move Entrances to the Inside

**1.5**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - coll. of owners
  - housing corp.

- **In:**
  - individual
  - collective space
  - housing corp.

### Create New Staircases

**1.6**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - coll. of owners
  - housing corp.

- **In:**
  - individual
  - collective space
  - housing corp.

### Move Parking Spaces into the Territory

**1.3**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - coll. of owners
  - housing corp.

- **In:**
  - individual
  - collective space
  - housing corp.

### Make a Community Deck Above Parking

**1.4**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - coll. of owners
  - housing corp.

- **In:**
  - individual
  - collective space
  - housing corp.

### Make Buffer Between Porch and Apartment

**1.7**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - coll. of owners
  - housing corp.

- **In:**
  - individual
  - collective space
  - housing corp.

### Create a Community Building

**1.8**

- **Solves:**
  - social
  - functional
  - architectural

- **For:**
  - individual
  - coll. of owners
  - housing corp.

- **In:**
  - individual
  - collective space
  - housing corp.

---

*ONLY WITH 1.3*
MERGE APARTMENTS

ADD PRIVATE OUTSIDE SPACES

OPEN PARTS FACADES FILLED BY OWNERS

OWNERS CHOOSE THEIR FENCES

FILL THE COLLECTIVE GARDEN WITH HOUSING

OWNERS CHOOSE OWN WINDOW FRAMES

APPLY CHANGEABLE FACADE MATERIALS

DESIGN "SHOPPING WINDOWS"

SOLVES:

FOR:

IN:

social

individual

individual space

social

individual

individual space

social

individual

individual space

social

individual

individual space

social

individual

individual space

social

individual

individual space

functionality

coll. of owners

collective space

functional

coll. of owners

collective space

functional

coll. of owners

collective space

functional

coll. of owners

collective space

functional

coll. of owners

collective space

functionality

housing corp.

architectural

housing corp.

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housing corp.
> From generic solutions to a better living environment

This new kind of expandable “toolbox” for housing transformation for different clients has as a main goal to ultimately improve the living environment in a sustainable way. The big advantage of this way of thinking is the bottom up approach: Instead of large masterplans imposed by developers or governments, the initiative for transformation can come from the owners. If they are supplied with an overview of solutions like proposed, the step to do interventions can become more attractive and easier.

The government can add to these solutions by for instance making specific permits for specific solutions, making the process easier and more attractive. Instead of controlling a large masterplan, the government could control the different solutions instead, giving the initiative to the owners, but controlling the solutions supplied. Also manufacturers and contractors could think and produce from this specific solution perspective. They could offer ready made designs, which can easily be constructed and could even lower the prices.

Eventually, during the course of time, more and more solutions will be applied in the neighborhoods, according to the demands of the time and owners. Step by step the living environment will improve as a result, growing with the time and owners.

> Possible next research steps

The solutions as tested in this context are only a handful of the total amount of possible solutions. Another context can bring up different ideas and therefore different solutions that could also be generic. By designing on different locations, in very different contexts, the booklet of solutions for housing transformations can expand and the tree of solutions and combinations of solutions can become more detailed and specific. Researching these kind of solutions in a designing way can therefore be very valuable and illustrative.

Another approach of research can be to really assess the actual costs and benefits of solutions in a more detailed way by including experts. This can include social, economic and physical aspects. A good reality check can then add to the value of the collection of solutions.
1960; COLLECTIVE FORCED UPON INDIVIDUAL

2012; COLLECTIVE COLORED BY INDIVIDUAL

> WIJKGEDACHTE