

The effect of the implementation of mixed functions on the neighbourhood residents' valuation of a building.

ABSTRACT

This paper explores the impact of implementing mixed functions in buildings, focusing on how this affects residents' perceptions and valuation of the building. The study examines two research cases: The Lochal in Tilburg, a successful multifunctional building with historical significance; The Mall of the Netherlands in Leidschendam, a former neighbourhood shopping centre, redesigned into the mall of future attracting visitors from all around the country. The results are applied to a design case, the Leyweg, a typical neighbourhood shopping centre in the Netherlands. The research involved street interviews with local residents, from which values were distilled. For The Lochal, residents appreciated the transformation that made the area more accessible and welcoming. However, the open-concept plan was met with some criticism due to noise and confusion. The Mall of the Netherlands received mixed feedback. While some residents appreciated the variety of functions, many felt it had become too impersonal and focused on attracting visitors from outside the area. Traffic issues negatively affected the perception of the mall. For both research cases economic and aesthetic values were placed highly. Critical comments were made by participants relating to the scale, atmosphere, and infrastructure of the buildings. Future research recommendations include the extension of the research field by the addition of case studies and expert insights. Also, the size of the response group should be extended to provide more significant results.

1

INTRODUCTION

In the Netherlands, shopping centres are abundant. Whether they are large-scale malls or small neighbourhood centres, they are woven into the fabric of Dutch society. In 2020 there were 522 small neighbourhood malls in the Netherlands and 110 big neighbourhood malls in the area that are not part of the city centre (Rossian & Pustjens, 2020). Malls were first introduced as a concept in the United States of America in the 50s by Victor Gruen (Hardwick, 2003). In the Netherlands, the concept of the shopping centre was adjusted to Dutch society. The shopping centre was seen as the heart of the neighbourhood (Gosseye, 2018). But not all shopping malls are functioning as well as others.

In recent years the vacancy store rate in the Netherlands has increased. In figure 1, the vacancy percentages of stores per province are indicated. In each province, this rate is 7% or higher, with Limburg at the highest vacancy rate of 14% (CBS, 2022). It has to be indicated that this concerns all stores, not solely shopping malls. One of the causes of vacancy is the rise of online shopping. Whereas in 2007 30% of the population in the European Union would shop online, in 2017 this grew to 57%. In the Netherlands specifically, this was 79% (CBS, 2018). Under the influence of the COVID-pandemic and its lockdowns, this share in online shopping has further increased and physical trips to stores decreased (Visser, Knoope, 2022).

In response to the increasing vacancy, the trade organisation for retail (non-food), INRetail, has been advocating a mix of functions. Meaning that, in the future, not only shops will sufficiently draw visitors, but more is needed in the form of public services, culture and restaurants (EenVandaag, 2021). This paper examined the implementation of mixed functions in a building. The focus was placed on how this implementation affected the valuation of the building by the residents of the neighbourhood. This was done since dutch malls were often designed as an integral part of a neighbourhood and served as a central meeting point (Galema & van Hoogstraten, 2005). Therefore, the results of this research can formulate design recommendations and can be applied to the transformation of modern malls or similar buildings.

Vacancy (%), 2022 (LV WOZ)

Selection: Stores

Aantal verblijfsobjecten:

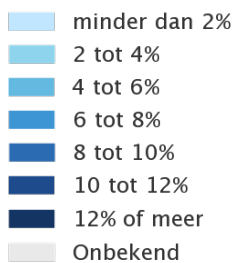
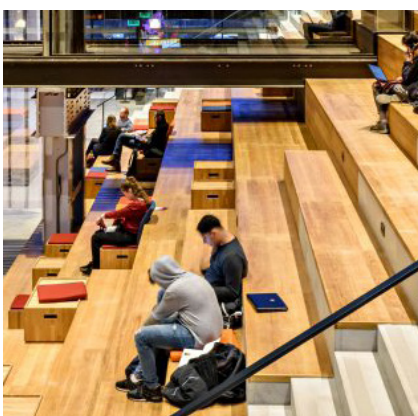


Fig. 1 Vacancy rates stores in the Netherlands (CBS, 2022)

In this paper, three buildings were placed at the centre of the study. Two case studies were chosen as part of the research: The Lochal in Tilburg as the representation of a successful multifunctional building (since it has won many awards in the architecture field) and The Mall of the Netherlands in Leidschendam as the future shopping mall scenario. The Leyweg, as the design case, differs from this. It portrays the typical shopping centre as it can be currently found in many towns in the Netherlands.

RESEARCH CASE

DESIGN CASE



▲ (ArchitectuurNL, 2019)

DE LOCHAL

Tilburg

THE
SUCCESSION



▲ (Narinx, 2021)

**MALL OF THE
NETHERLANDS**

Leidschendam

THE
FUTURE



▲ (Kompagnie, 2019)

LEYWEG

Den Haag

THE
TRADITIONAL

Fig. 9 Overview of the two research cases and the design case.

The Lochal was a former repair and maintenance building for locomotives built in 1933 and was part of an area called 'de Spoorzone' (railway zone) (Lochal, n.d.). Due to the emergence of diesel trains and later electrical trains, the need for locomotive reparations shrank. In 2009 it was announced that the workplace would close down, this was completed in 2011 (Bogdan et al., 2019). After becoming a municipal monument in 2015 (PDOK, n.d.), it was transformed in 2019 into a public building with mixed functions, including a library, meeting spaces, laboratories and a cafe. The hypothesis for the Lochal is that the relationship of the residents with the building has been improved since the design was made to transform the building into a living room for the city, which should be accessible to all.

The Mall of the Netherlands (abbreviated as MOTN) was originally opened in 1971 as Leidschenhage shopping centre and was transformed in 2021. The decision to create a large shopping centre had quite an impact on Leidschendam. During the design phase, a traffic expert and sociologist were brought into the design process. This affected the design by the creation of parking spaces and a tram connection. In the last remodelling of the mall in 1998 did not help counteract the deterioration of the mall (Bosman, n.d.). During the transformation in 2021, a new shell has been placed over two-thirds of the original building. One-third has been torn down and was replaced by new construction (Van Raaij, n.d.). The new mall was not only meant as a shopping destination but as a place to be experienced. Besides shops, now there is a cinema, children's daycare, restaurants, a museum and a bowling alley were added. It is designed as the new hotspot of the Netherlands and is focused on attracting people in a wide radius (Westfield, n.d.). Though advertised as the future of shopping. The hypothesis for the Mall of the Netherlands is that the relationship with the residents of the neighbourhood has deteriorated since the new design is focused on attracting visitors from the whole of the Netherlands. The local population is not the target group.

The Leyweg, as the design case, portrays the typical neighbourhood shopping centre as it can be currently found in many towns in the Netherlands. After the Second World War ended, W.M. Dudok, as an urban planner, created a city expansion plan for the Hague. One of Dudok's concepts was the importance of nature in the design. He incorporated it as veins running through the city. This is still visible in the current situation, where apartment blocks are placed as stamps in the neighbourhood and are separated by green areas (Van de Beek, & Van der heijden, 1987).

Changes in both the Lochal and the Mall of the Netherlands were significant, which would have an effect on the surrounding neighbourhoods. Street interviews are used to distil the opinions of the residents on this subject. The analysis of the valuation of these buildings is supported by theories concerning heritage and value assessment. Local residents are central to this assessment.

2

METHODOLOGY

Interviews were held with local residents of the three buildings. An overview of the questions posed during the interview per building can be found in appendix B. The area that was selected for the street interviews for each building is based upon the distance of a ten-minute walking circle (amounting to a circle with a radius of 830 meters). This is derived from the concept of the 20-minute city (also known as the 15-minute city). It is advocated by the C40 cities, a network of mayors from cities worldwide, who aim to combat the climate crisis. The concept stimulates active transport modes, decentralises city life and services and reconnects people with their neighbourhoods (C40, 2020). The circle was overlaid with the borders of the different neighbourhoods ('buurten') to select which area's demographics are needed. In the Netherlands, there is a difference between a district (*wijk*) and a neighbourhood ('*buurt*'). The neighbourhood is a smaller segment of the district. For each building, the goal was to interview at least ten residents.

The street interviews took place on weekdays and weekend days to represent the resident response group well. The results were compared to the demographics of each neighbourhood to ensure that the results are representative. The demographics can be found in appendix C. Demographics will always convey a very straightforward image of an area, which should be looked at critically. The interviews were anonymous, only an indication of the participants' age is given, which is a minimum of 18. People who participated were asked for verbal consent for the interview to be recorded, which was deleted after transcription. All participants were able to withdraw from the research at any time.

The analysis of the valuation of these buildings is supported by theories concerning heritage and value assessment. People (residents and experts) are central to this assessment.

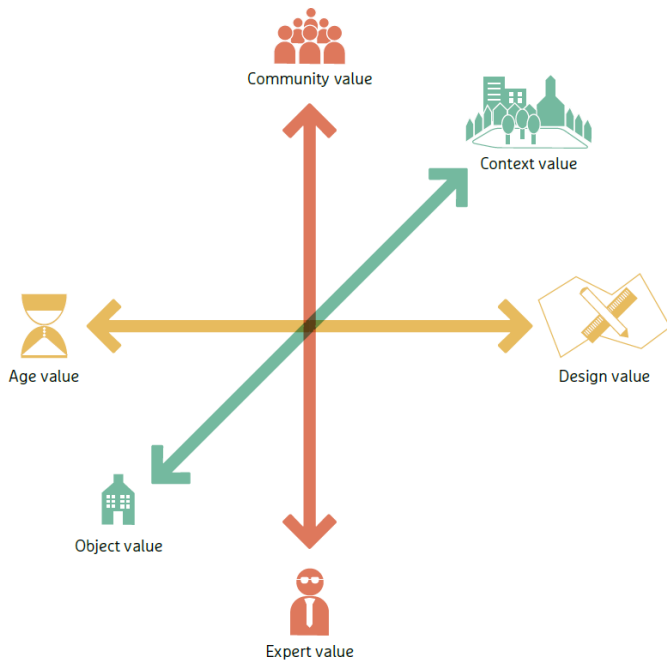


Fig. 2 The dimensions of cultural value according to Meurs (Meurs, 2016, pp 34)

	RIEGL +	AGE value	HISTORICAL value	INTENTINAL COMMEMORATIVE value	NON INTENDED COMMEMORATIVE value	USE value	NEW-NESS value	(relative) ART value	RARITY value [+]	OTHER relevant values [+]
BRAND +										
SURROUNDINGS / SETTING [+]										
SITE										
SKIN (exterior)										
STRUCTURE										
SPACE PLAN										
SURFACES (Interior) [+]										
SERVICES										
STUFF										
SPIRIT of PLACE [+]										

Fig. 3 The evaluation tool combining Brand's layers and Riegl's values by Kuipers and de Jonge (Kuipers & de Jonge, 2017, pp 87).

People place importance on specific locations, which is significant, states Relph in his book *Place and Placelessness* (1976). People feel a deeply rooted connection to the places in which they live. This attachment to a place can be as important as human relationships. But everyone assigns their own importance or value to a place. Through the years, with each generation, heritage values change (Meurs, 2016). Meurs created a diagram, pictured in figure 2, which shows these different dimensions. In the case of this research, the community value is placed central, since the relation of the mall to the neighbourhood is investigated. The expert dimension (architects) provides a counterpart to this, but lies beyond the scope of this paper.

In their book *Designing for Heritage*, Kuipers and de Jonge (2017) present a design-orientated value assessment tool that combines the shearing layers of Brand (plus three added layers) on one axis and the values formulated by Riegl on the other, see figure 3. The shearing layers concept was formulated by architect Frank Duffy, and later developed by Steward Brand in his book *How Buildings Learn*:



Fig. 4 The values framework by Pereira Roders. Image from (Spoormans & Pereira Roders, 2020), original concept by Pereira Roders (2007).

	PEREIRA RODERS	ECOLOGICAL VALUE	SOCIAL VALUE	ECONOMIC VALUE	AGE VALUE	POLITICAL VALUE	SCIENTIFIC VALUE	AESTHETICAL VALUE	HISTORIC VALUE
BRAND +									
SURROUNDINGS / SETTING [+]									
SITE									
SKIN (exterior)									
STRUCTURE									
SPACE PLAN									
SERVICES									
STUFF									

Fig. 5 The evaluation tool combining Brand's layers and Pereira Roder's values (Kuipers & de Jonge, 2017, pp 87, adjusted by me).

What Happens After They're Built". In this book, he discusses how buildings are always changing:

"The word "building" contains the double reality. It means both "the action of the verb BUILD" and "that which is built"—both verb and noun, both the action and the result. Whereas "architecture" may strive to be permanent, a "building" is always building and rebuilding."

(Brand, 1995, pp 17)

Brand's layers are as follows:

- Site
- Structure
- Skin
- Services
- Space Plan
- Stuff

Kuipers and de Jonge added three values to this:

- Surroundings/ setting
- Surfaces (interior)
- Spirit of Place

For this research, it has been decided to omit the added Surfaces (interior) and Spirit of Place layer. The Surfaces (interior) layer is omitted because this research is mostly focused on the buildings on a larger scale. If notes are made on the interior surfaces, this will be gathered under Skin. The Spirit of Place is omitted since this research is mostly focused on tangible aspects of the buildings. By using the Spirit of Place, many intangible attributes would be gathered under one layer, which would not create a clear analysis. The Surroundings/ setting layer is kept since the connection of the buildings with their neighbourhood is important in this research. Therefore using a larger scope than solely the direct surroundings of the building is required.

The layers of Brand (plus the Surroundings/ setting layer) are not combined with Riegl 's values, since he categorised these values at the beginning of the 20th century. A more recent alternative is found in the values categorised by Pereira Roders in 2007. She created a value assessment tool, categorising eight different values, pictured in figure 4. Combining Kuipers and de Jonge's value assessment tool with Pereira Roder's values leaves us with the assessment tool depicted in figure 5. The interviews were coded with the program ATLAS.ti.

3 RESULTS

3.1 Results of the interviews

In total, 11 residents were interviewed in the area surrounding the Mall of the Netherlands and 10 in the area around the Lochal.

Before the building was transformed, the Lochal (and the Spoorzone) was only accessible to the workers and not to residents of the city. With the transformation of the Spoorzone and the Lochal, the whole terrain has been opened up and the north of the city has been connected to the south. The before and after state of the Lochal is depicted in figure 6 and 7. When speaking to the residents, many mentioned how it was a hassle to get from one side of the city to the other and the Spoorzone was seen as a barrier. Now the transition has become effortless. The Lochal is just one element in the whole Spoorzone development, many other buildings are being transformed and given new functions. All of the interviewees were positive about the transformation of the area and the addition of the new functions to the neighbourhood. Though noticeable was that the interviewees from the south side of the rail tracks were less likely to visit the spoorzone since they felt they had all their needs already fulfilled in the city



Fig. 6 The Lochal when it was still a locomotive repair shop (Mecanoo, n.d.).



Fig. 7 The current state of the Lochal (Bollaert, 2019).

centre area, where there are many shops, restaurants and cultural functions present. It is noticeable that the residents share a pride and connection with the buildings that are part of the spoorzone. They take pride in the fact that their municipality has decided to transform older buildings, instead of tearing them down.

“I really appreciate that they really created a nice atmosphere, but what I appreciate the most is that Tilburg has finally made the move to give these old buildings a nice function.”

- Woman, 50's resident Tilburg

Though during the transformation of the Mall of the Netherlands, two-thirds of the original building was kept, these remains are not clearly visible in the current design. Therefore residents were also specifically asked what their opinion was of the old shopping mall versus the new one. The before and after situation is depicted in figure 8 and 9. 7 Out of 11 interviewees preferred the old shopping mall to the new one. They did not feel that this shopping mall was for the neighbourhood anymore, that it was focussed on people from outside of town, who'd go there for the day as an outing.

“Leidsenhage was actually for the people of the surrounding area here. They always went shopping there and did their groceries and as a child, I went to play there. That was actually for the residents here and now? Now it is mostly for the people from outside, that just come here for a day of shopping.”

- Woman 50's resident Leidschendam



Fig. 8 The Vroom & Dreesman store in the former Leidsenhage shopping mall (JosPé, 1972).



Fig. 9 Stores in the former Leidsenhage shopping mall (Westfield Mall of the Netherlands, n.d.).

“So you had stores in Leidsenhage where everyone still knew each other. It was more of a village and this is very impersonal.”

- Man 50's resident Leidschendam

What also did not positively influence people's opinion about the Mall of the Netherlands was the infrastructural problem. Because the new shopping mall has profiled itself as the mall of the whole country, it draws visitors from far away who travel to the mall by car. This causes traffic around the mall and parking overflow into the surrounding neighbourhoods. Only 1 person out of 11 did not mention the traffic during the interview. Therefore it showed that not only the design itself influences people, but the context should also be taken into account from the beginning of the design and onwards, which was done during the conceptualisation of the Leidschendam mall (Neukirchen, 2015). One interviewee mentioned that the traffic issues led people in his neighbourhood to move away from the area. A side note to this is that the person who moved back in, specifically moved there to be close to the Mall of the Netherlands. This shows that some people appreciate the mall strongly enough to move to the location.

3.2 Valuation of the interviews

In order to put a value on the interviews, the valuation tool combining Brand's layers and Pereira Roder's values (shown in figure 5) is used. The process of this valuation is shown in figure .. First attributes are

identified. Then these attributes are coded by using the Roder's valuation categorisation and are assigned to a layer of Brand. Positive or negative connotations are derived from the attribute or its context. An overview of the value assessment for each case is given in appendix D.

*Q: Do you feel like the connection with the neighbourhood has changed?
Comparing how it was before to now?*

I think that it's a bit more distant. It is a bigger building, kind of like a fort, within this area.

Present negative Aesthetical value

When valuing the Lochal, it stood out that there were differing opinions about the functioning of the open space in the building. It was appreciated, but when studying, noise was experienced as bothering. Also, an interviewee mentioned that his father, an elderly man, found the building confusing due to the layout. The historic value is mentioned quite often, 7 times in 10 interviews. This was something that was expected since the building has been tied in with the city's history. During the transformation, respecting and showing original elements was important to the concept of the architects. For the MOTN, the economic value arose as number one. The abundance in stores was valued by many but also disliked by others since they described the building as too intense and containing too many stimuli. When comparing the values of the two cases, it stands out that in both top threes, the aesthetical and economic values are present. This is shown in the table in figure 10.

In terms of positive or negative valuation, it stands out that only the Lochal is talked about in an overwhelmingly positive manner. For the MOTN the top comments are negative. For the MOTN it does have to be mentioned that many of these negative valuations had mostly to do with the traffic situation or the atmosphere in the building. The results are given in an overview in figure 11.

	LOCHAL	MOTN
1	Aesthetical	Economic
2	Historic	Aesthetical
3	Economic	Scientific

Fig. 10 Value assessment residents.

	LOCHAL GR= 57 GS=10	MOTN GR= 104 GS=11
PAST NEGATIVE	3	3
PAST POSITIVE	2	24
PRESENT NEGATIVE	12	45
PRESENT POSITIVE	40	33

Fig. 11 Positive and negative values residents.

3.3 Application results to other cases

In this case, the results of this paper will be applied to a hypothetical transformation of the Leyweg shopping centre. This case represents one of many neighbourhood malls in the Netherlands and therefore results can be applied to other buildings.

Noticeable was the importance that residents placed on the personal feeling of a building. There was a dislike for anonymity, but a divided opinion on a new modern look. In the case of the MOTN, some

liked the luxurious, modern look and feel of the building, whereas others thought it was megalomaniac and too intense. Attention to the history of the building is valued highly, as is accessibility. The interviewees made it clear that the traffic situation around the building is something to take into account when transforming a building. When taken into account, it is valued positively, due to easy accessibility, but when it is not taken into account it can lead to a highly negative valuation, that will cloud other values.

Resulting from the interviews with residents surrounding the Lochal, including the effect of a transformation on a larger scale were also seen as very beneficial to the use of residents of the area on a city scale.

4 DISCUSSION

Using interviews as one of the main source materials for research comes with advantages and disadvantages. During the interviews, it became clear that the answers provided by interviewees were not as architecturally related as expected. During our studies architecture students obtain a certain way of analysing situations from an architectural viewpoint. It is important to construct questions that allow everyone, especially those without architectural knowledge, to answer extensively. The street interviews were also relatively short since they were meant to be casual conversations and therefore attract as many people as possible to take part in the research since time can be perceived as a barrier for many. The amount of 10 street interviews per building was feasible in the time available for this research, but to create a better representation of the neighbourhood and provide more significant results, ideally, a larger participant group would be needed.

Carrying out a value assessment is a useful tool for placing value on a building. It structures a process that can be quite difficult since what is heritage in itself is already a question to which different people can have vastly different answers. Doing this research as an architecture student, a certain frame of reference has been developed through which the research is approached. The value assessment is also carried out by a person who is interpreting the words of others and coding them. Therefore there is a vulnerability to bias which should be taken into account. However, this is reduced by providing a framework with several set categories for valuation.

Demographics wise the neighbourhood of the Mall of the Netherlands is comparable to that of the Leyweg. The demographics of the Lochal are quite different. Therefore the valuation that residents applied to the building can be different following the composition of the neighbourhood. It could be argued that the results of the valuation could be more easily applied to other cases with a similar demographic. More extensive research could be done by extending the scope and including more research cases in the research. Thereby creating a database of different situations, from which information can be applied to similar cases.

Also, the Lochal is not a modern mall, but a public building with mixed functions. On the one hand, it differs in that sense from the Mall of the Netherlands. The outcome could be less suitable to be directly applied to the case of a modern mall that needs transformation. However, when taking the bigger picture into account, further research could be done into more buildings with mixed functions. Not necessarily only malls, to provide a more extensive guide for more design cases onto which outcomes could be applied.

As mentioned in the introduction, the outcome of this paper could be applied to shopping malls. It is approached from the situation in which shopping malls will have to deal with vacancy currently and in the future. It does have to be noted that the effect of the COVID pandemic on the increase of online shopping will decrease since this was a temporary situation and the COVID pandemic has become endemic (Visser, Knoope, 2022).

5 CONCLUSION

The Lochal and Mall of the Netherlands were taken as case studies to provide information on the effect of the implementation of mixed functions on a building. This paper was focused on residents of the surrounding neighbourhoods of these case studies.

The hypothesis that the transformation of the Lochal was valued positively by residents and had a positive effect on the neighbourhood is confirmed by residents through street interviews. But it was not the complete success story that it might have been expected to be. It was successful in opening itself up to the neighbourhood and creating a sense of welcomeness. The critique though addresses the

functioning of the building as a large open-concept plan. Despite the positive attitude of most residents, some mentioned that the openness caused confusion when using the building.

The Mall of the Netherlands might not be the future for the mall that it is portrayed to be. Though people appreciated the different functions in the building, the combination of entertainment and shopping, many felt it was anonymous and impersonal. Also, the placement of such a building should be taken into account due to the traffic issues. Perhaps it would have been better placed in a less residential and more spacious area. It is interesting that traffic now is the main issue, whereas at the start of the construction of the original mall, there was a lot of attention paid to it and it was taken into the design.

Residents value the buildings most on economic and aesthetic grounds. In the end, the mixed functions of a building were appreciated by many of the residents surrounding the buildings. Criticism was posed on the scale of buildings, the atmosphere and the infrastructure.

Further research could include interviews with multiple architects from case studies, that designed the original buildings (if possible due to age), but also all architects that worked on transformations through the years. This is to provide an expert counterpart to the neighbourhood, as described by Meurs (2016). Also, interviews with residents could be done for more case studies, to widen the scope of the research. In that case, the interviewee pool could be expanded to provide more significant results.

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APPENDIX A: REFLECTION

At first, I started this graduation studio with a specific fascination in mind. This fascination was related to designing for mental health, more specifically for children in a primary school. I quite quickly approached this from the scenario in which, in the future, malls would have to deal with vacancy, due to, among other things, vacancy. This led to the following research question: How could current and future vacancy in malls be substituted by other functions, such as education while retaining the essence of the mall and respecting its heritage?

Quite quickly after formulating this research question, I started to retrieve information on the specific question: why focus on education? Of course, there would be vacancy which could be filled, but why would that be education and not any other function? At first, I approached this from the point of view in which primary school buildings in the Netherlands are not all up to standard anymore. These outdated buildings could find a new place in a part of a shopping mall, since malls are mostly located quite centrally and often in a residential area. But then I started to wonder, you could merge multiple outdated buildings in one location in the shopping mall, but that would still leave vacated school buildings. Why not just renovate those?

Would it truly be an advantage to create one large school building, or would children benefit from these smaller-scale schools as they are now? Also, when centring all these buildings in one location, that would mean that some children would have to bike or walk relatively farther to their school, which could be problematic for younger children in relation to safety. For these reasons, I decided to let go of the idea of specifically placing a primary school in a part of the mall and instead focus on a broader aspect of the addition of mixed functions.

The process of finding the right angle of the research is also clear in the development of the research question. The different questions that were developed are indicated in figure 11. The final research question was developed by reducing the extensiveness of the sentence since the first research question consisted of many different aspects. Afterwards, in the second question, the emphasis was still on the possible functional solution of education as an addition to the functions of the mall. In the third question, this is left in the open and the emphasis is placed on strengthening the functions of the mall to benefit the neighbourhood. Finally, this question was finetuned to result in the eventual research question.

In a future in which the mall (as we currently know it) does not function, how should the mall change, while maintaining the heritage of the building and the role that the mall played in the city?



How could current and future vacancy in malls be substituted by other functions, such as education, while retaining the essence of the mall and respect its heritage?



How could future vacancy in malls be substituted by mixed functions to strengthen its function in the neighbourhood, while respecting its heritage?



How could expected vacancy in malls be counteracted by mixed functions to strengthen its role of central meeting point for the neighbourhood, while respecting its heritage?

Fig. 11 Development of the research question.

APPENDIX B: INTERVIEW QUESTIONS

LOCHAL

- **Woont u hier in de buurt? Hoe lang woont u hier?**
Do you live in the neighbourhood? How long have you been living here?
- **Hoe vaak bezoekt u de Lochal?**
How often do you visit the Lochal?
- **Om wat voor reden bezoekt u de Lochal? Van welke functies maakt u gebruik?**
For what reason do you visit the Lochal? What functions do you use then?
- **Kunt u goede punten van de Lochal opnoemen? Kunt u verbeterpunten opnoemen?**
Could you mention some strong points of the Lochal? Could you mention something that could be improved?
- **Wat voor effect heeft de Lochal op de wijk gehad of vroeger gehad?**
What kind of effect did the Lochal have on the neighbourhood or what effect did it used to have?
- **Wat mist u in de Lochal of in de buurt qua functies?**
What do you miss in the Lochal or in the neighbourhood in terms of functions?
- **Heeft de Lochal ervoor gezorgd dat u vaker naar de andere kant van het spoor gaat?**
Did the Lochal facilitate you going to the other side of the train tracks?

MOTN

- **Woont u hier in de buurt? Hoe lang woont u hier?**
Do you live in the neighbourhood? How long have you been living here?
- **Hoe vaak bezoekt u de Mall of the Netherlands?**
How often do you visit the Mall of the Netherlands?
- **Om wat voor reden bezoekt u de Mall of the Netherlands? Van welke functies maakt u gebruik?**
For what reason do you visit the Mall of the Netherlands? What functions do you use then?
- **Kunt u goede punten van de Mall of the Netherlands opnoemen? Kunt u verbeterpunten opnoemen?**
Could you mention some strong points of the Mall of the Netherlands? Could you mention something that could be improved?
- **Wat voor effect heeft de Lochal op de wijk gehad of vroeger gehad?**
What kind of effect did the Lochal have on the neighbourhood or what effect did it used to have?
- **Wat mist u in de Lochal of in de buurt qua functies?**
What do you miss in the Lochal or in the neighbourhood in terms of functions?
- **Ging u vroeger ook naar het Leidsenhage winkelcentrum? Welke versie vindt u het fijnste winkelcentrum er waarom?**
Did you go to the former Leidsenhage shopping mall as well? Which version of the shopping mall do you prefer and why?

APPENDIX B: INTERVIEW QUESTIONS**LOCHAL**

- **Woont u hier in de buurt? Hoe lang woont u hier?**
Do you live in the neighbourhood? How long have you been living here?

- **Hoe vaak bezoekt u de Leyweg?**
How often do you visit the Leyweg?

- **Om wat voor reden bezoekt u de Leyweg? Van welke functies maakt u gebruik?**
For what reason do you visit the Leyweg? What functions do you use then?

- **Kunt u goede punten van de Leyweg opnoemen? Kunt u verbeterpunten opnoemen?**
Could you mention some strong points of the Leyweg? Could you mention something that could be improved?

- **Wat mist u in de Leyweg of in de buurt qua functies?**
What is missing in the Leyweg of the neighbourhood in terms of functions?

- **Wat doet u in uw vrije tijd? Hoe ver reist u daarvoor en zou u dit liever dicht bij huis hebben?**
What do you do in your free time? How far do you travel for that and would you prefer this to be close to your house?

- **Als de gehele Leyweg verbouwd zou worden, wat zou u dan willen behouden?**
If the whole Leyweg would be transformed, what would you like to keep and why?

- **Is er iets aan de Leyweg wat nu verdwenen is wat u jammer vindt?**
Did a part of the Leyweg disappear that you regret that disappeared?

- **Wat zou er in de Leyweg moeten veranderen zodat u er meer tijd doorbrengt?**
What would have to change in the Leyweg for you to spend more time there?

APPENDIX B: INTERVIEW QUESTIONS**LOCHAL ARCHITECT**

- Wat was het concept van het ontwerp en hoe zijn jullie tot dat concept gekomen?

What was the concept of the design and how did you come to that concept?

- Welke delen van het winkelcentrum zijn onderdeel van jullie ontwerp? En welke delen zijn in de huidige tijd, na jullie ontwerp, verandert?

Which parts of the mall are part of your design? Which parts are changed in the current time, after your design?

- Welke functies hebben jullie verwerkt in jullie ontwerp toen het gebouw opgeleverd werd?

What functions did you incorporate into your design when the building was finished?

- Wat zagen jullie toentertijd als de sterke punten van de Leyweg en wat waren verbeterpunten van het winkelcentrum?

What did you see, at the time, as strengths of the Leyweg and what were challenges/ could be improved in the mall?

- Welke onderdelen van het winkelcentrum in de bestaande situatie tijdens de start van jullie ontwerp waardeerden jullie zeer en wilden jullie behouden?

Which parts of the mall in the existing situation during the start of the design did you appreciate and did you want to keep?

- Wat was de grootste uitdaging tijdens het ontwerp?

What was the biggest challenge during the design?

- Wat voor rol heeft het originele ontwerp van de Leyweg gespeeld in het ontwerp? Zijn er elementen die jullie geïnspireerd hebben of die jullie graag wilden laten terugkomen in het nieuwe ontwerp?

What role did the original design of the Leyweg play in the design? Are there elements that inspired you of that you liked to bring back in the new design?

- Wat voor rol hebben de bewoners uit de buurt gespeeld bij de totstandkoming van het ontwerp?

What role did the residents play in the creation of the design?

- Wat voor rol hebben de omliggende wijken gespeeld bij de totstandkoming van het ontwerp?

What role did the surrounding neighbourhoods play in the creation of the design?

- Zouden jullie, achteraf gezien, iets veranderen aan het ontwerp? En zo ja, wat?

Would you, looking back, change anything about the design? And if yes, what would that be?

- Hoe zien jullie de toekomst van winkelcentra zoals de Leyweg? Moet er wat veranderen en zo ja wat?

How do you see the future of shopping malls like te Leyweg? Does something need to change and if yes, what?

APPENDIX C: COMPOSITION NEIGHBOURHOOD

LOCHAL

The area surrounding the Lochal that is selected for the interviews consists of four neighbourhoods:

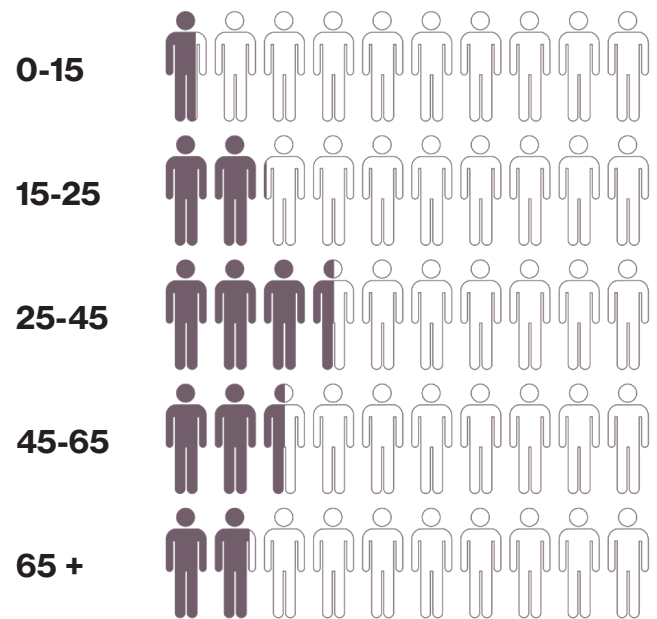
- Theresia
- Spoorzone noord
- Spoorzone zuid
- Binnenstad

They consist of the following buurten:

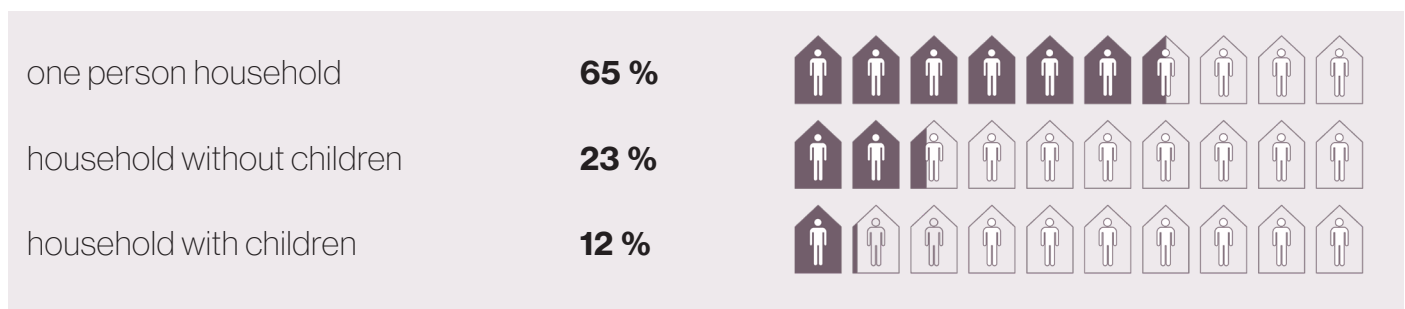
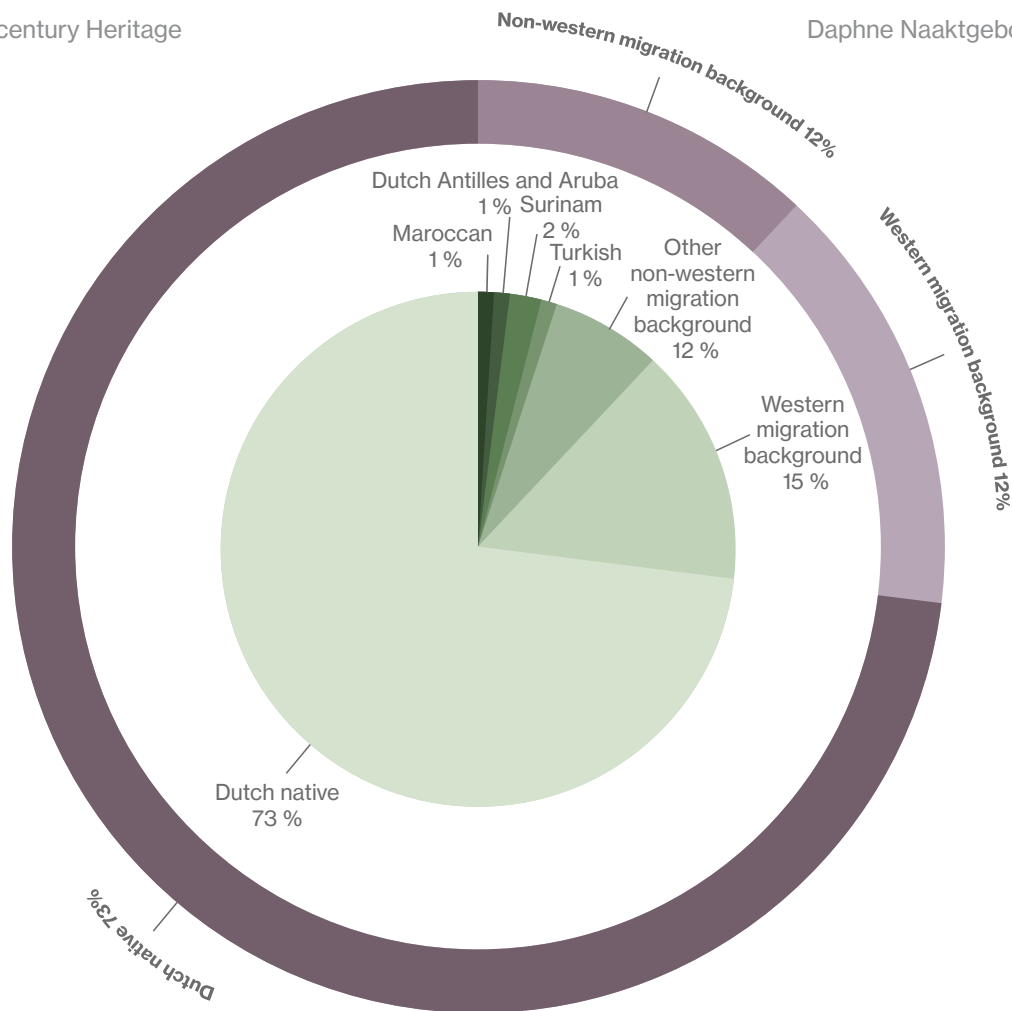
- Theresia
 - Theresia West
 - Theresia Midden
 - Theresia Oost
- Spoorzone noord
 - Spoorzone Noord-West
 - Spoorzone Noord-Oost
- Spoorzone zuid
 - VGL-terrein
 - Talentsquare
 - Spoorlaan
- Binnenstad
 - Binnenstad West
 - Binnenstad Oost
 - Oude Dijk
 - Koningsplein

In total, 9.685 people live in the buurten together. The population of Tilburg is 221.947.

The biggest represented age group in the area is aged between 25-45 with 34,8% it is followed by the 15-25 group with 20,9%, the 45-65 group with 19,2%, the 65+ group with 18% and the 0-15% group with 7,1%.



Age groups in then neighbourhoods surrounding the Lochal (CBS, 2021) (Own Work).



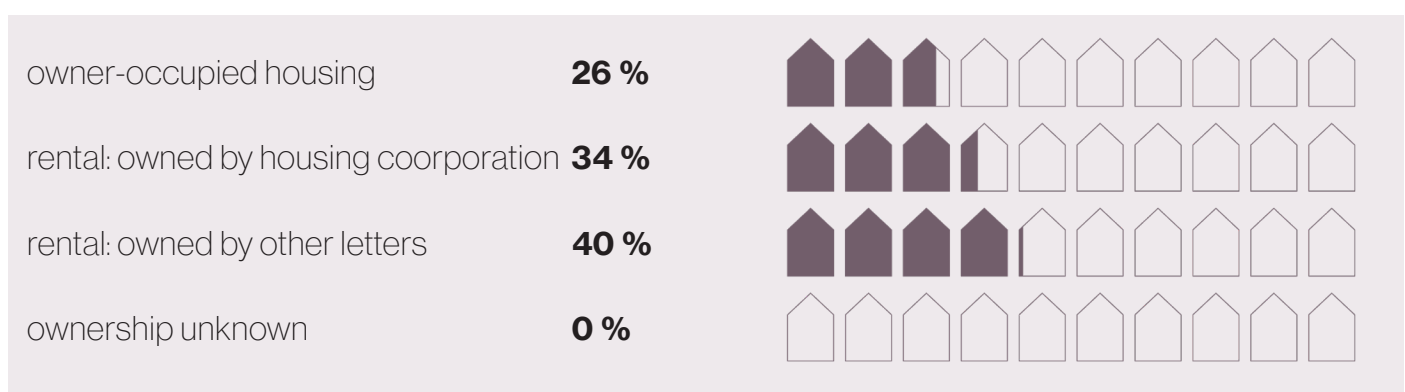
Household composition (CBS, 2021) (Own Work).

Household composition

In the buurten there are 6170 households. 4015 Household are one person households. 1445 Households are households without children, 710 contain children. On average, the household size is 1,5 in the selected buurten.

Housing stock

The housing stock in the buurten consists of a mix of rent and owner-occupied housing, the average WOZ worth is 217.000 euro's, as compared to the Dutch average of 290.000 euro's.



Housing stock (CBS, 2021) (Own Work).

APPENDIX C: COMPOSITION NEIGHBOURHOOD

MOTN

The area surrounding the Westfield Mall of the Netherlands that is selected for the interviews consists of four neighbourhoods:

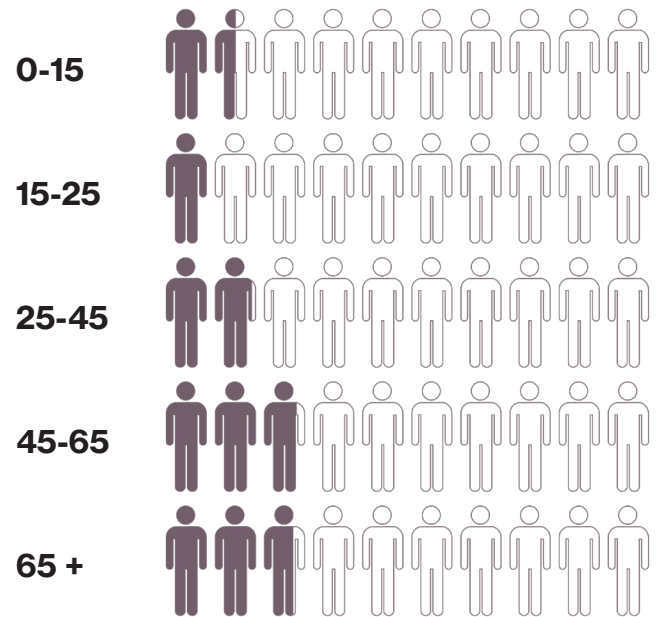
- De zijde and surroundings
- De Heuvel/ Amstelwijk
- Damsigt and surroundings
- Essesteijn

The following buurten fall within the selected area:

- De zijde and surroundings
 - De Zijde
 - Schakenbosch en het Buitengebied
 - Duivenvoorde
 - Park Veursehout
 - Leidsenhage
- De Heuvel/ Amstelwijk
 - Amstelwijk
 - De Heuvel noord
 - De Heuvel zuid
- Damsigt and surroundings
 - Raadhuiskwartier
 - Verzetsheldenwijk
 - Damsigt
 - Sijtwende
 - Kleurenbuurt
- Essesteijn
 - Essesteijn/ Gaarden
 - Nieuw Essesteijn/ Zijdezig
 - Essesteijn/ Dreven
 - Essesteijn/ Weiden
 - Essesteijn/ Tuinen

In total, 12.310 people live in the buurten together. The population of Leidschendam-Voorburg is 76.433.

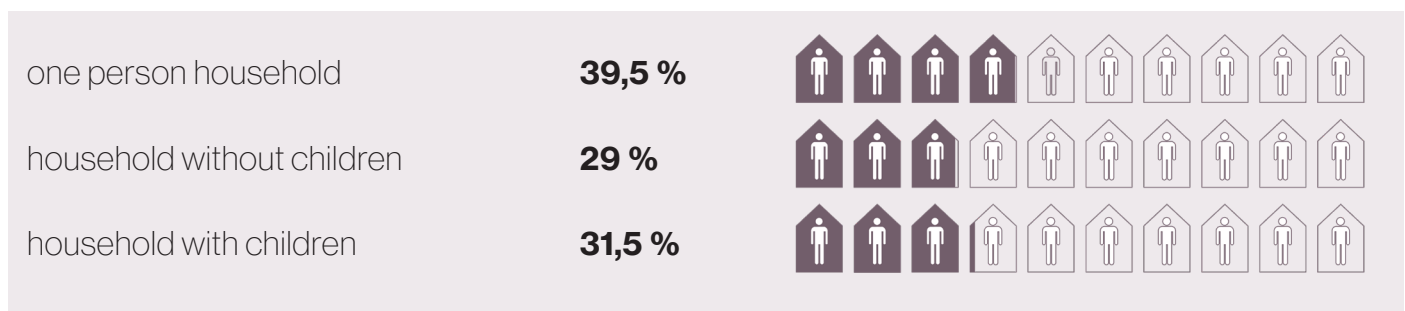
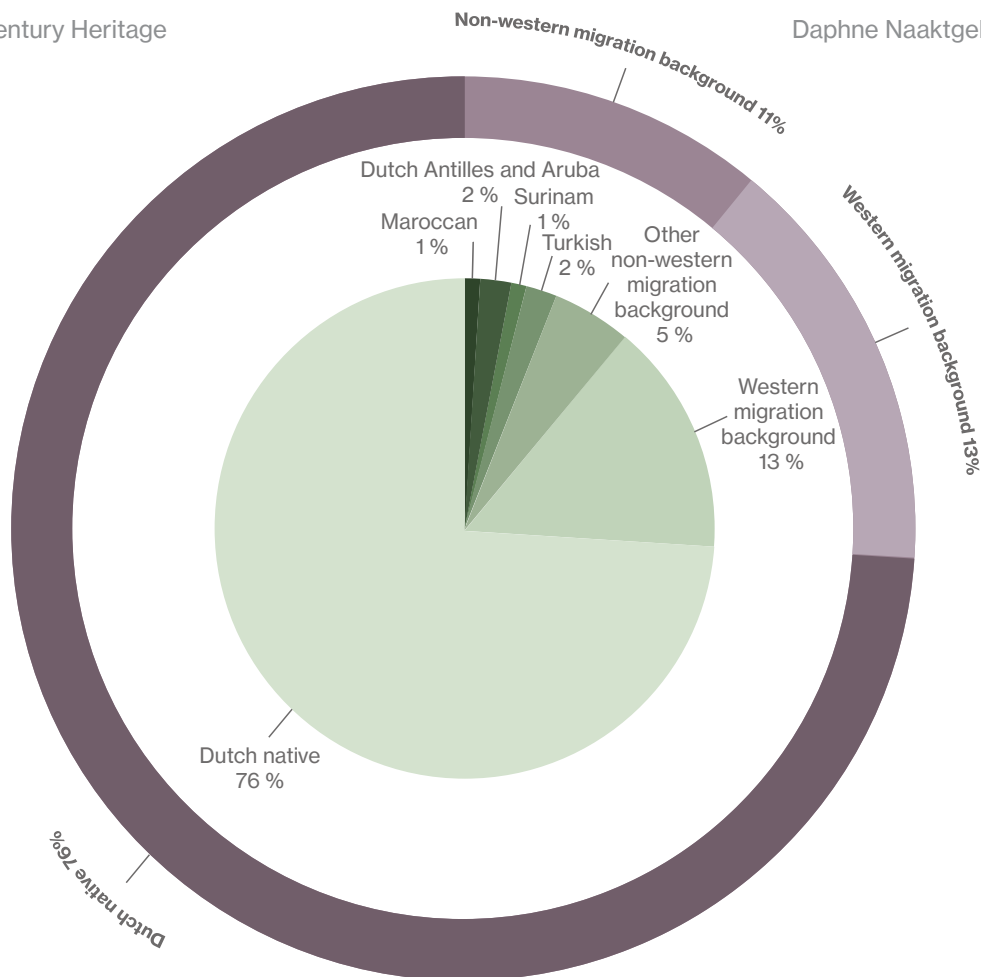
The biggest represented age group in the area is aged between 45-65 with 28,2% it is followed by the 65+ group with 27,5%, the 25-45 group with 19,1%, the 0-15 group with 15,2% and the 15-25 group with 10,0%.



Age groups in the neighbourhoods surrounding the MOTN (CBS, 2021) (Own Work).

Migration background

In the buurten, 26% of inhabitants have a migration background. A person with a migration background is described by the CBS as a person who had at least 1 parent who was born outside of the Netherlands. In comparison, for inhabitants of the city of the Hague this is 33%. For the Netherlands this percentage lies at 25%.



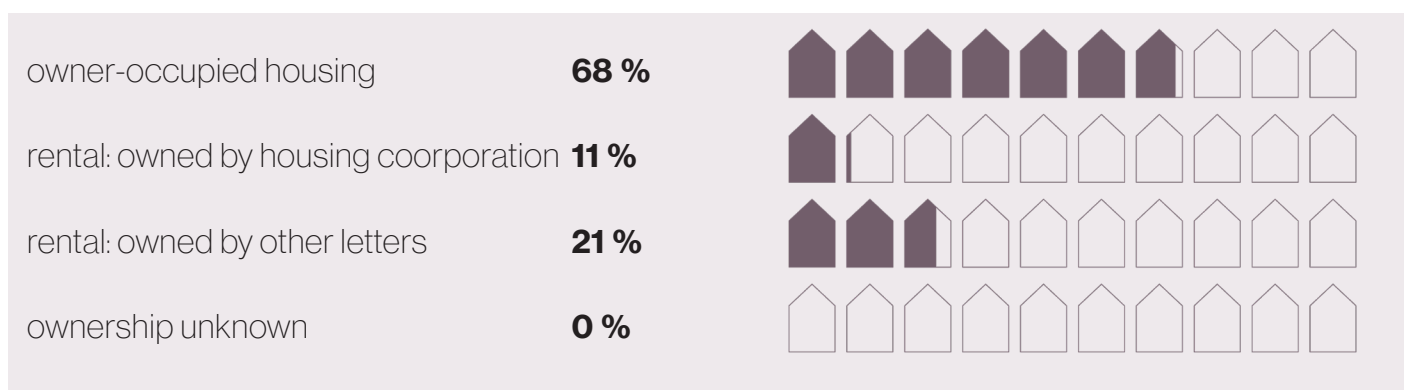
Household composition (CBS, 2021) (Own Work).

Household composition

In the buurten there are 5860 households. 2315 Household are one person households. 1700 Households are households without children, 1845 contain children. On average, the household size is 2,1 in the selected buurten.

Housing stock

The housing stock in the buurten consists of a mix of rental and owner occupied housing, the average WOZ worth is 327.000 euro's, as compared to the Dutch average of 290.000 euro's or 315.000 in Leidschendam-Voorburg.



Housing stock (CBS, 2021) (Own Work).

APPENDIX C: COMPOSITION NEIGHBOURHOOD

LEYWEG

The area surrounding the Leyweg that is selected for the interviews consists of one neighbourhood:

- Morgenstond

It consists of the following buurten:

- Morgenstond

- Morgenstond Oost

- Morgenstond West

- Morgenstond Zuid

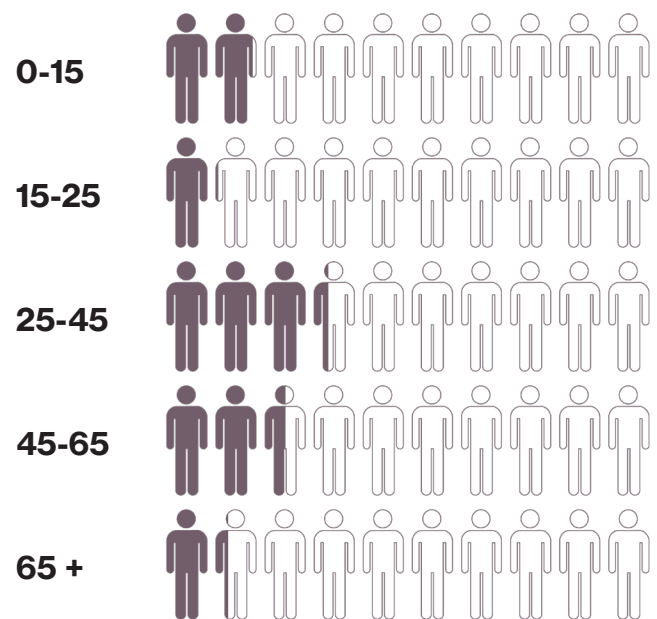
Since all the buurten in the neighbourhood are included in the research area, the demographics are displayed for the neighbourhood of Morgenstond.

In total, 20.265 people live in Morgenstond. The population of the Hague is 548.320.

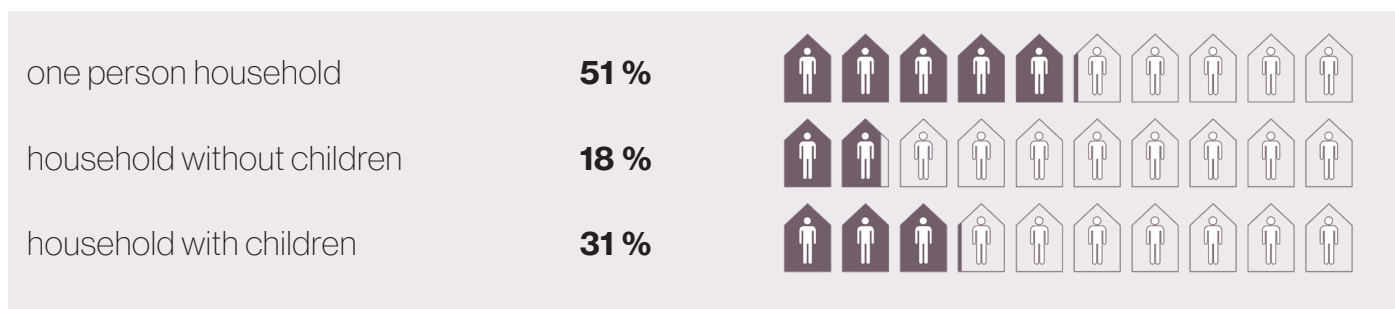
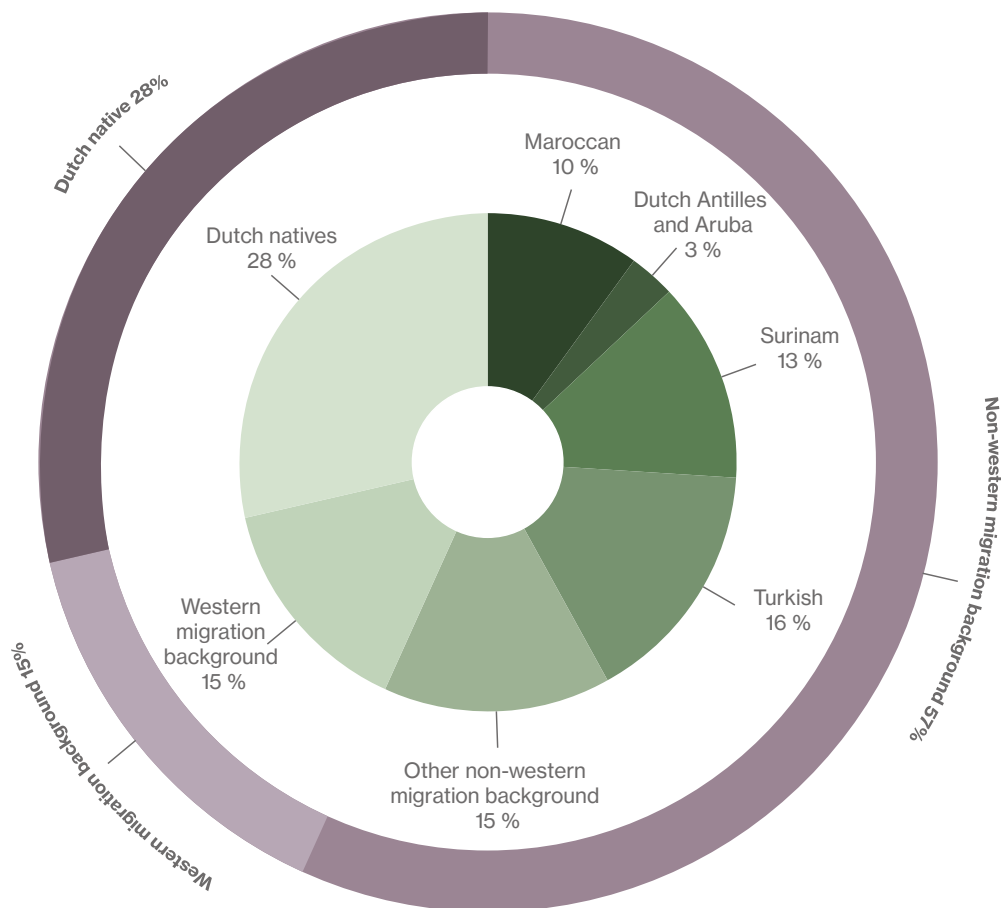
The biggest represented age group in the area is aged between 25-45 with 33,3% it is followed by the 45-65 group with 24,8%, the 0-15 group with 18,8%, the 65+ group with 12,6% and the 15-25% group with 10,5%.

Migration background

In morgenstond, 72% of inhabitants have a migration background. A person with a migration background is described by the CBS as a person who had at least 1 parent who was born outside of the Netherlands. In comparison, for inhabitants of the city of the Hague this is 56%. For the Netherlands this percentage lies at 25%. This attests to the fact that Morgenstond is a neighbourhood with a diverse population.



Age groups in the neighbourhoods surrounding the Leyweg (CBS, 2021) (Own Work).



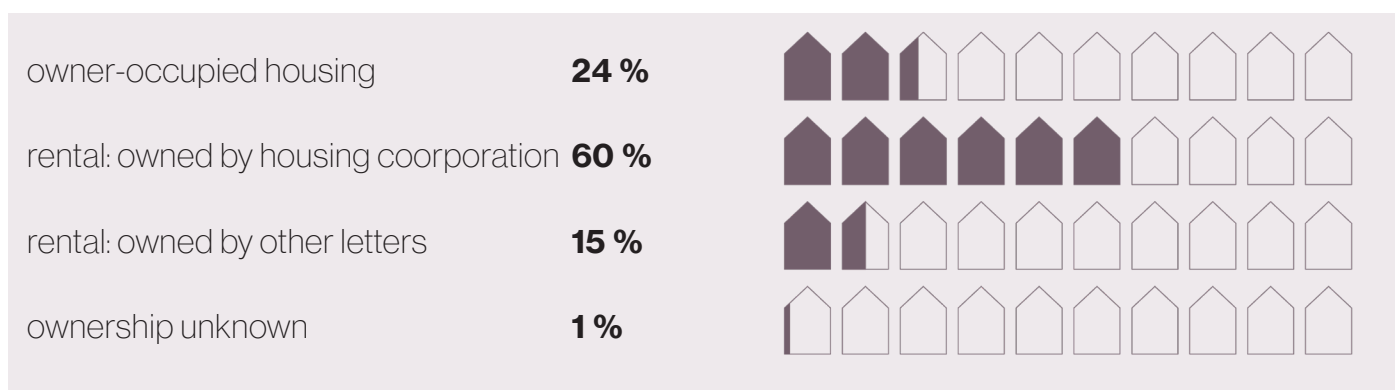
Household composition (CBS, 2021) (Own Work).

Household composition

In Morgenstond there are 10395 households. 5300 Household are one person households. 1820 Households are households without children, 3270 contain children. On average, the household size is 1,9.

Housing stock

The housing stock in Morgenstond consists of the a majority of social housing, the average WOZ worth is 175.000 euro's, as compared to the Dutch average of 290.000 euro's.



Housing stock (CBS, 2021) (Own Work).

APPENDIX D: VALUE ASSESSMENT

LOCAL

	ECOLOGICAL VALUE			SOCIAL VALUE			ECONOMIC VALUE			AGE VALUE			POLITICAL VALUE			SCIENTIFIC VALUE			AESTHETICAL VALUE			HISTORIC VALUE									
	spiritual	essential	existential	spiritual	emotional (incl.)	emotional (col.)	allegorical	use	non-use	entertainment	allegorical	workmanship	existential	maturity	educational	management	entertainment	symbolic	workmanship	technological	conceptual	artistic	notable	conceptual	evidential	educational	historic - artistic	historic - conceptual	symbolic	archaeological	
STUFF								3	3													1									
SPACE PLAN								3	3													3			3		1		1		
SERVICES																															
STRUCTURE												3	3							3	3		2		1	1	2	1	1		
SKIN																				1	1					1		1			
SITE					2		2																1		1						
SURROUNDINGS /SETTING					2		2																1	1			2			2	

MOTN

	ECOLOGICAL VALUE			SOCIAL VALUE			ECONOMIC VALUE			AGE VALUE			POLITICAL VALUE			SCIENTIFIC VALUE			AESTHETICAL VALUE			HISTORIC VALUE									
	spiritual	essential	existential	spiritual	emotional (incl.)	emotional (col.)	allegorical	use	non-use	entertainment	allegorical	workmanship	existential	maturity	educational	management	entertainment	symbolic	workmanship	technological	conceptual	artistic	notable	conceptual	evidential	educational	historic - artistic	historic - conceptual	symbolic	archaeological	
STUFF								2			2											3	1	2							
SPACE PLAN								4	2	2	1											3		3		1	1	1			
SERVICES																															
STRUCTURE																															
SKIN																				6	1	1	4	8	2	6	4		4		4
SITE								2			2												3		1	2					
SURROUNDINGS /SETTING								13	11		2																				