



MIX IT UP!

Research into the application of mixed functions on modern malls and their relation to their neighbourhood

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1

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). But not all shopping malls are functioning as well as others.

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). From the Lijnbaan as the first shopping promenade and modern mall of the Netherlands in the 50s (Kuipers, 2008), the Bogaard as the first covered mall in the '60s (Quaedflieg et al, 2013) to the big-scale shopping centres of the present that focus on the visitors' experience, such as the Westfield Mall of the Netherlands (Van Raaij, n.d.) show the development of the shopping mall in the Netherlands through the years.

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), IN-Retail, 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).

A response from architects is also needed. Modern malls are relatively recent additions to the heritage portfolio. It can already be challenging for architects to evaluate the heritage of a building. Not only are they influenced by clients, budget and time, but they are also influenced by their education and theories, which can lead them to have trouble placing the heritage first (Kuipers & de Jonge, 2017, pp 86).

Dutch Malls were often designed as an integral part of a new neighbourhood and serve as a central meeting point (Galema & van Hoogstraten, 2005). Therefore this research places the residents of the neighbourhood of a mall as its main subjects. Despite this localisation, some malls do not function yet as the central meeting point that they have the potential to be. This research will look into how vacancy can be filled and simultaneously benefit the neighbourhood in which the mall is located. This led to the following question:

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

This research will be done by using different methods, consisting of literature and archival research, interviews and a value assessment.

Vacancy (%), 2022 (LV WOZ)

Selection: Stores

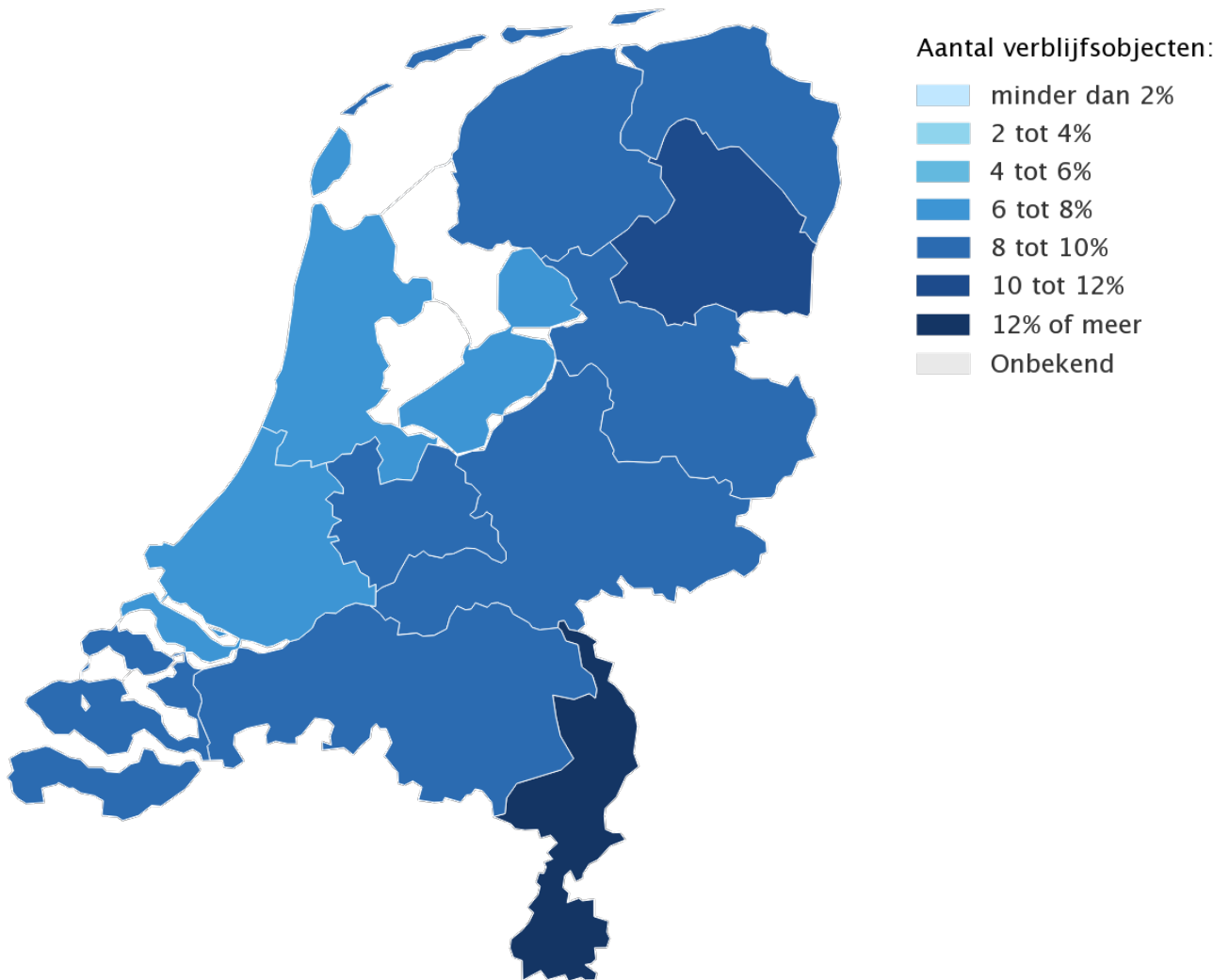


Fig. 1 Vacancy rates stores in the Netherlands (CBS, 2022)

2

In this research, three buildings are placed at the centre of the study: The Lochal, the Leyweg and the Mall of the Netherlands. The analysis of these buildings is supported by theories concerning heritage and value assessment. People (residents and experts) are central to this assessment.

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.

In their book *Designing for Heritage*, Kuijpers 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: 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

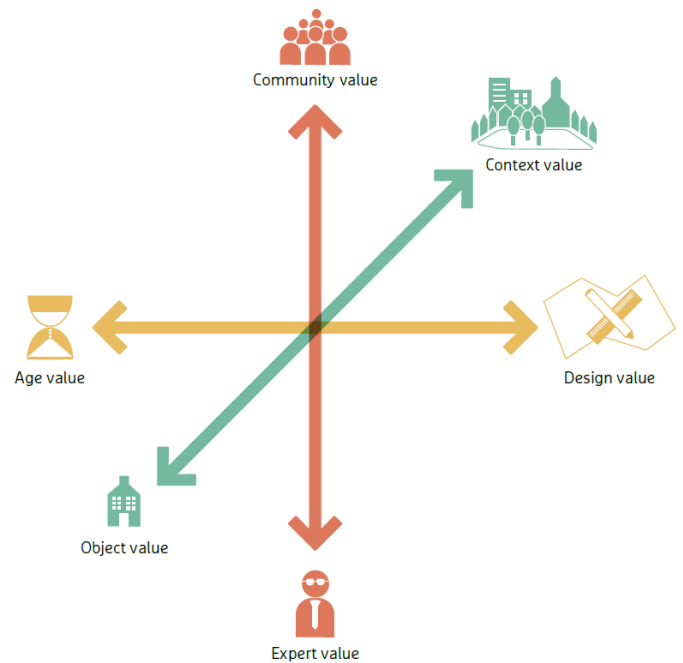


Fig. 2 The dimensions of cultural value according to Meurs (Meurs, 2016, pp 34)



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

THEORETICAL FRAMEWORK

	RIEGL +	AGE value	HISTORICAL value	INTENTIONAL 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).

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

	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).

'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.

20-minute city

The area that is selected for the street interviews for each building is based upon the distance of a ten-minute walking distance. These 10 minutes are derived from the concept of the 20-minute city (or 15-minute city). It is advocated by the C40 cities, a network of mayors from

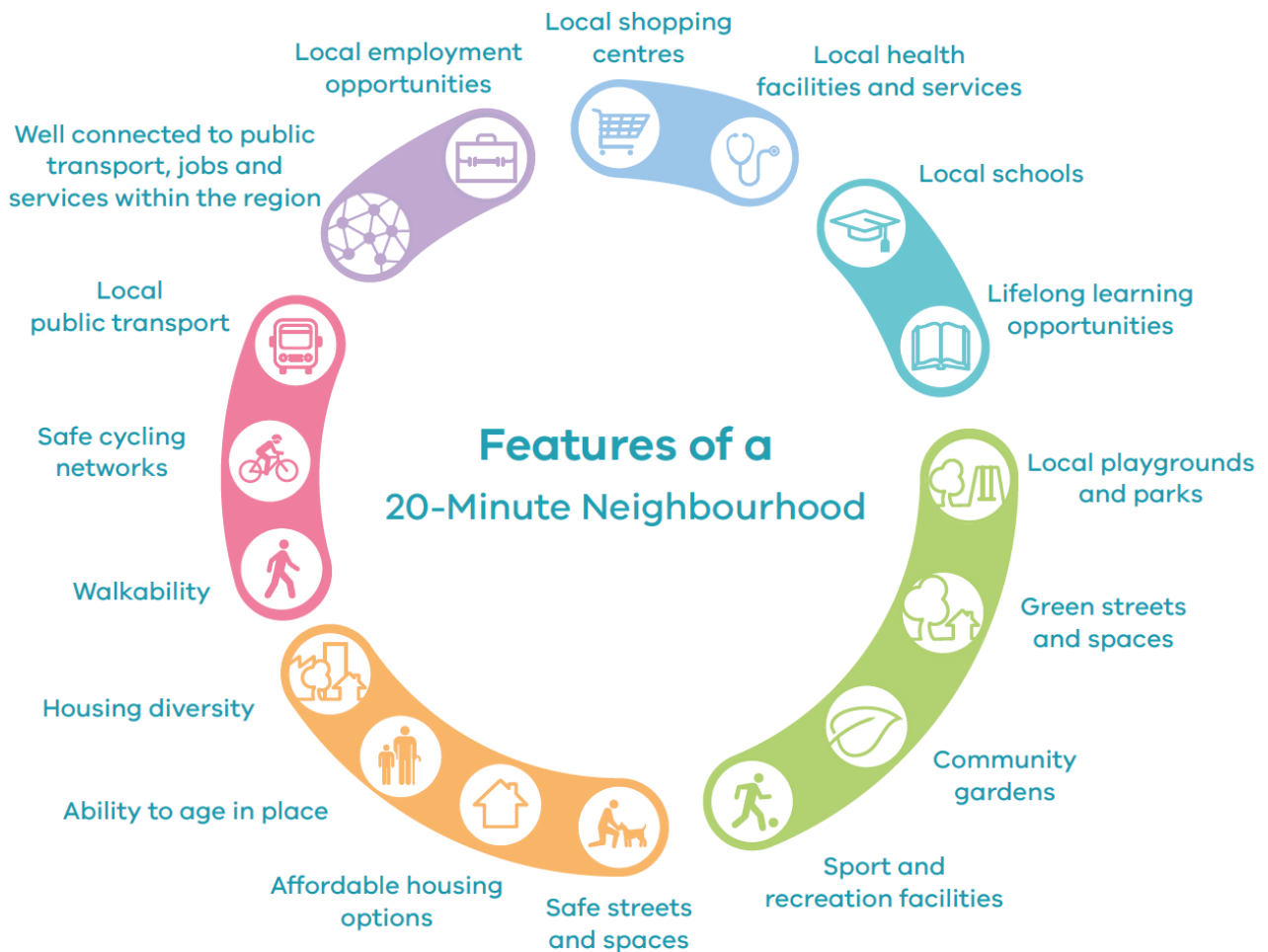


Fig. 6 20-Minute Neighbourhoods. Creating a more Liveable Melbourne (Victoria State Government, 2017)

cities worldwide, who aim to combat the climate crisis. In 2020 they published the article 'How to build back better with a 15-minute city', in which it was stated that:

'In a '15-minute city', everyone is able to meet most, if not all, of their needs within a short walk or bike ride from their home. It is a city composed of lived-in, people-friendly, 'complete' and connected neighbourhoods. It means reconnecting people with their local areas and decentralising city life and services.'

There is a need for this motivation of active transport modes as opposed to the use of motorised vehicles. This stems from the fact that it is expected that 7 out of 10 people on earth will live in urban areas by 2050 (United Nations, n.d.). Though cities prosper economically, they account for more than 70 percent of global greenhouse gas emissions. The UN has set up 17 sustainable development goals, of which number 11 is: *Make cities inclusive, safe, resilient and sustainable.*

To combat this emission of greenhouse

gasses, among other reasons, cities adopt the strategy of supporting active transport modes. Brand et al. (2021) found that the promotion of active transport modes decreased mobility-related emissions, even in European countries, where walking and cycling is already integrated as a means of transport.



3

Following the research question, subquestions are formulated. The methodology per subquestion will be discussed.

How are mixed functions incorporated into the transformation of a public building/ existing mall?

This will be answered by the following three subquestions:

- 1. Which functions were added to the original design?**
- 2. What changes were made to the building to accommodate the transformation?**

To answer these questions, archival and literature research will be done. It is mostly focused on the building and will be quite tangible research.

- 3. What was the impact of these changes on the relationship of the mall with its neighbourhood?**

To answer this question archival and literature research will be done, including demographic research into the composition of the neighbourhood. The results of the interviews will be applied to his question.

What are the heritage values of the building?

- What values do the residents of the neighbourhood assign to the building?**
- What values do experts (architects) assign to the building?**

These questions will be answered by carrying out interviews with the residents of the neighbourhood of the buildings on the street and the architect of the transformation of the Leyweg, to produce an expert point of view. These interviews will be coded and a value assessment will be done.

A diagram is created to provide an overview of the connections between the questions and the methodology, which is depicted in figure 7.

Interviews

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 selected area is a ten-minute walking circle (amounting to a circle with a radius of 830 meters), which is based on the 20-minute city concept. The circle is 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 every building, the goal is to interview at least ten residents. The street interviews will take place on weekdays and weekend days to represent the resident response group well. The results will be compared with 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 are anonymous, only an indication of the participants' age is given, which will be a minimum of 18. People who participate will be asked for verbal consent for the interview to be recorded, which will be deleted after transcription. All participants will be able to withdraw from the research at any time.

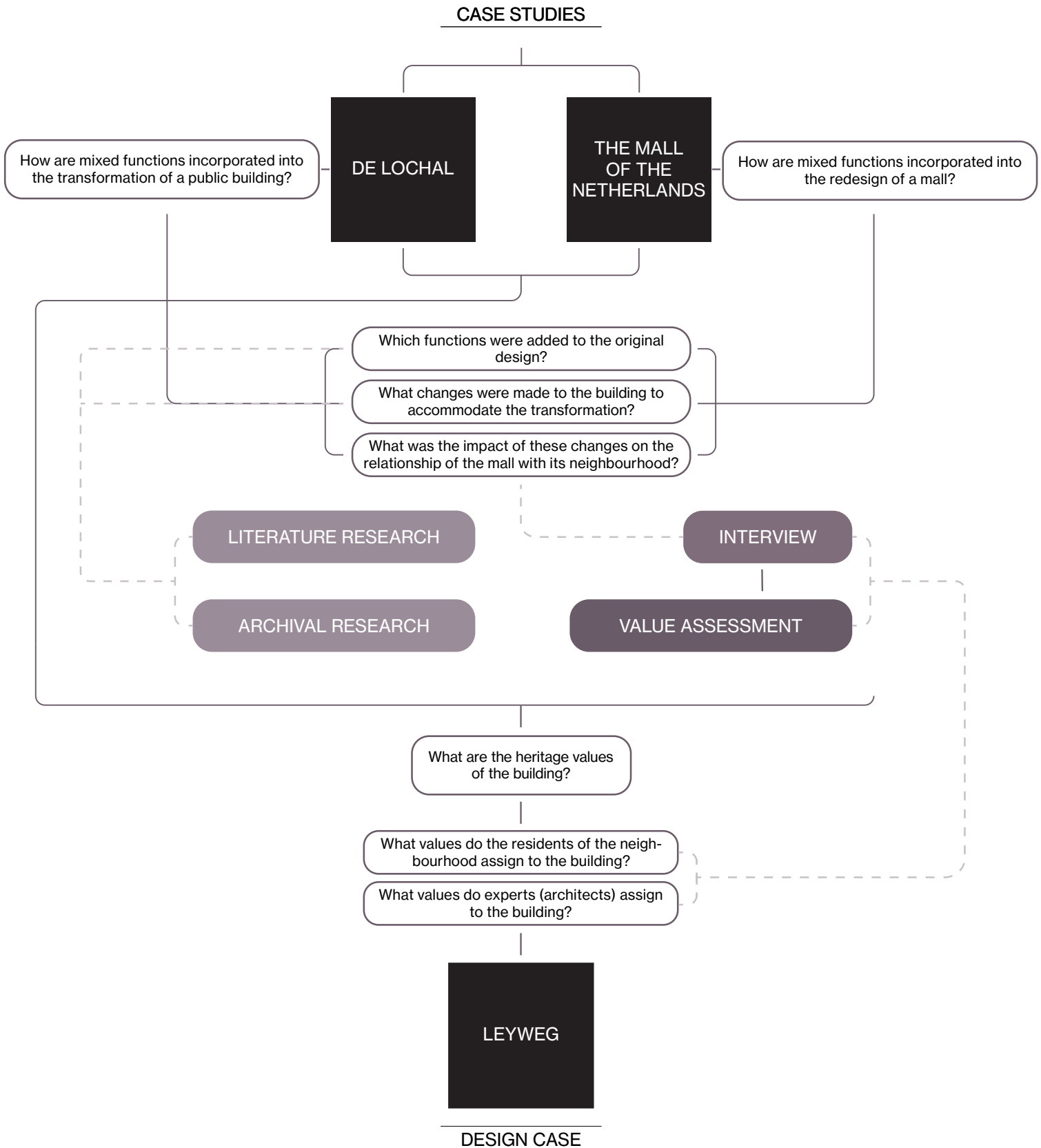


Fig. 7 Overview of the research question and subquestions connected to the methodology (own work).

4

In this research, three buildings are placed at the centre of the study. Two case studies are 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. The three chosen buildings are located in different areas in the Netherlands, namely Leidschendam, the Hague and Tilburg as seen in figure 8.

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. The hypothesis is that this building could serve as an example of how to successfully introduce mixed functions and have a positive effect on the neighbourhood.

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. 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 is that the relationship with

its neighbourhood is affected negatively, due to this focus on the bigger scale.



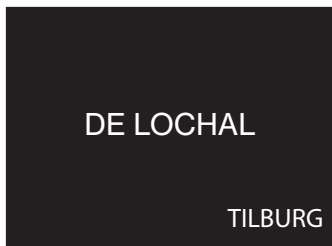
Fig. 8 Localisation of the buildings on a map of the Netherlands (own work).

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).

RESEARCH CASE



▲ (ArchitectuurNL, 2019)



THE
SUCCESSION



▲ (Narinx, 2021)

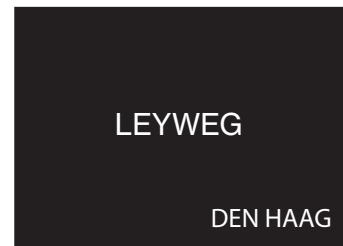


THE
FUTURE

DESIGN CASE



▲ (Kompagnie, 2019)



THE
TRADITIONAL

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

How are mixed functions incorporated into the transformation of a public building or mall?

This chapter will be divided into three sections. Every section will be shaped by a question, namely the following:

- **Which functions were added to the original design?**
- **What changes were made to the building to accommodate the transformation?**
- **What was the impact of these changes on the relationship of the mall with its neighbourhood?**

They will be used to answer the subquestion and are applied to the two research cases, the Lochal and the Westfield Mall of the Netherlands.

Added functions

The original functions of the MOTN and Lochal will be indicated first, then the new additions will be discussed.

MOTN

Leidsenhage, the former shopping mall, was a big regional shopping centre. At the opening, it was advertised as the biggest shopping centre in the Netherlands (Bosman, n.d.). The former functions of the building cannot be easily found. There is no overview of the shops or functions that were in the shopping mall at the time. Through archival research, photos showing different stores could be found. For instance, big department stores were present, such as the Vroom & Dreesman, the C&A and the Hema. Besides stores, small cafes were present as well.

When plans were created for the transformation, there were 180 shops present in the former mall, spanning a surface of 75.000 m². Of the shops, 120 were moved. Some of these stores were relocated to the central area of the city, where they were deemed more suited to the needs of the area and where they could fill up local vacancy (de Soet, 2022).

Currently, the surface of the whole complex is 120.000 m², plus a parking garage for 4000 cars. There are around 280 shops and restaurants. After the transformation, functions that were added, besides shops, are:

- **Foodcourt**
- **Cinema**
- **Youmuseum:** A museum where visitors can take selfies in themed rooms, targeting Instagram audiences.
- **Children's daycare**
- **Sportsbar with bowling alley**

(Van Raaij, n.d.)



Fig. 10 The Vroom & Dreesman store in the former Leidsenhage shopping mall (JosPé, 1972).



Fig. 11 Stores in the former Leidsenhage shopping mall (Westfield Mall of the Netherlands, n.d.).

LOCHAL

The Lochal was part of a larger complex, consisting of workshop buildings owned by the 'Staatsspoorwegen' (state railway company). The lochal itself was a building in which the locomotives were repaired. The building was in essence a big open space, divided into two sections. A row of columns made this separation. Between the three rows of columns, large beams were placed, from which the locomotives could be hoisted up into the air. The building consisted of three sections:

- **The trolleytrack** (*rolwagenspoor*): Here locomotives were manoeuvred into the building.
- **The depot** (*stelplaats*): The places where the employees worked on the reparation of the locomotives.
- **The boiler repair shop** (*ketelreparatiewerkplaats*): Here the boilers of steam powered locomotives were repaired.

(Lochal, n.d.)

In 2009 it was announced that the workplace would close down, this was completed in 2011 (Bogdan et al., 2019). After the closure, a plan was drafted to alter the functioning of the building completely. The current building is described as:

"... a workshop of the 21st century. A place where everything and everyone comes together: learning and studying, enterprising and researching, meeting and conferencing, creating and innovating, exhibiting and presenting."

(Lochal, n.d.)

The functions that are currently present in the Lochal are as follows:

- **A library:** With a special section designed for children.
- **Meeting spaces:** The spaces can be rented out by organisations. Two organisations attached to the Lochal are Kunstloc Brabant and Seats2meet.
- **Laboratoria:** Labs where visitors can learn new skills, there is a Future Lab, a Word Lab, a DigiLab, Timelab and a Game Lab.
- **Cafe**
- **City balcony:** Here, exhibitions can be held and the balcony offers a view of Tilburg.

(Morris, 2019)

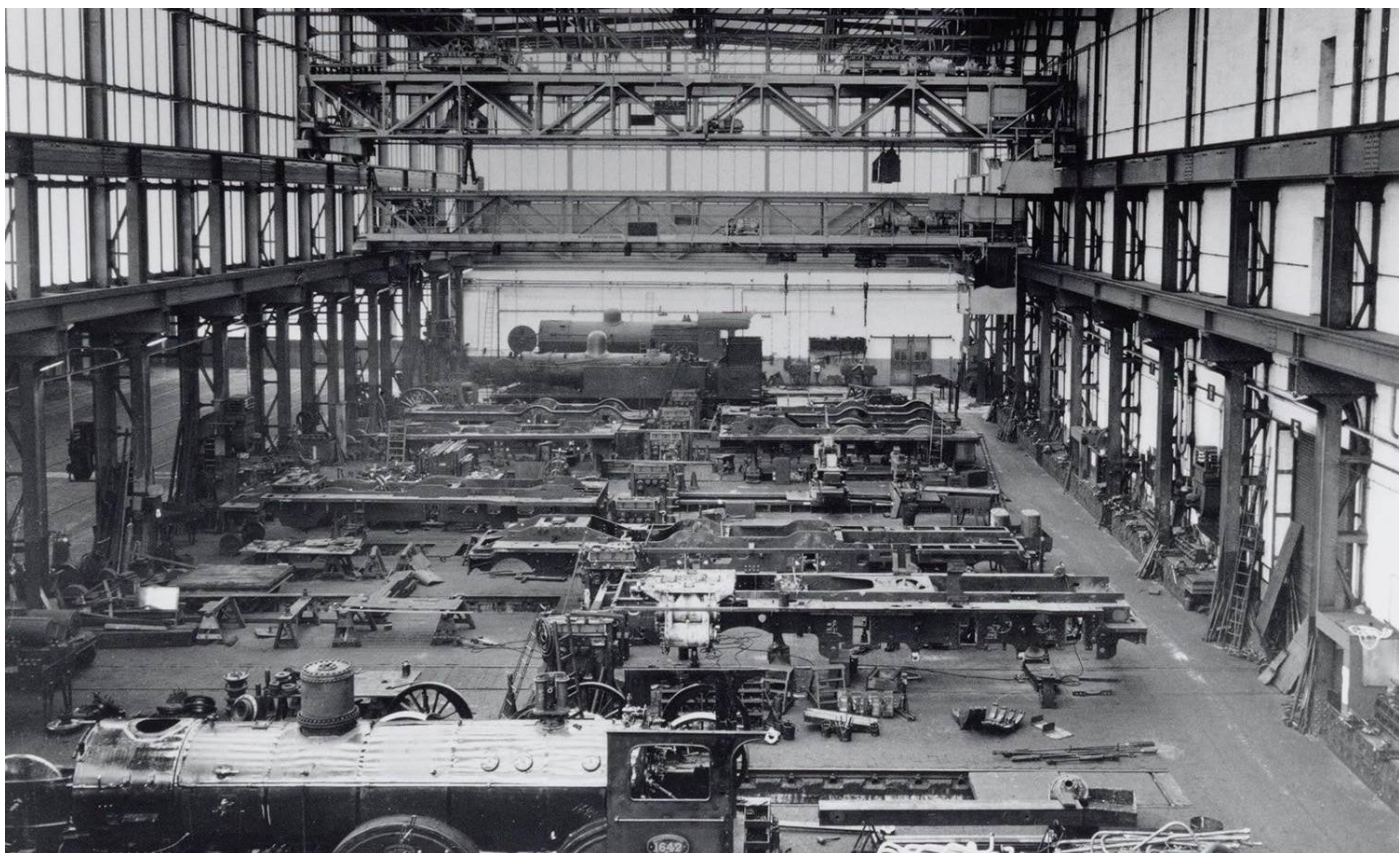


Fig. 12 The Lochal when it was still a locomotive repair shop (Mecanoo, n.d.).



Fig. 13 The current state of the Lochal (Bollaert, 2019).

Changes to the building

During the transformation of the Lochal and the MOTN changes were made to the original design. Whereas the Lochal completely changed its function, the MOTN remained partly comparable in functioning. However, the appearance of the building changed completely, whereas the exterior appearance of the Lochal was mostly preserved.

LOCHAL

The design for the building was made so that all newly added parts can be removed. The building can return to its original state. All the functions in the building are therefore reversible and can adapt to the needs of a specific time. In the building, all functions mix and mingle through a succession of different levels. They are separated by moveable curtains.

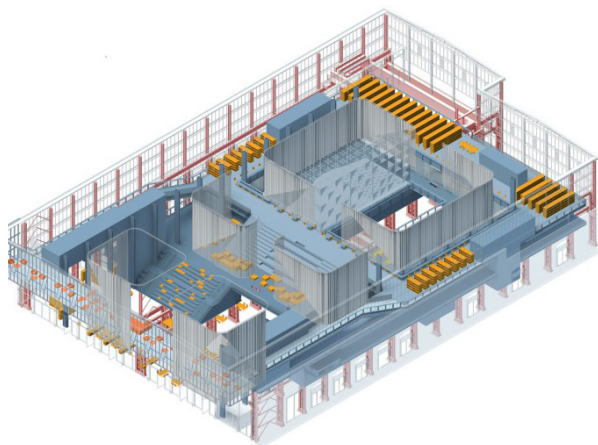
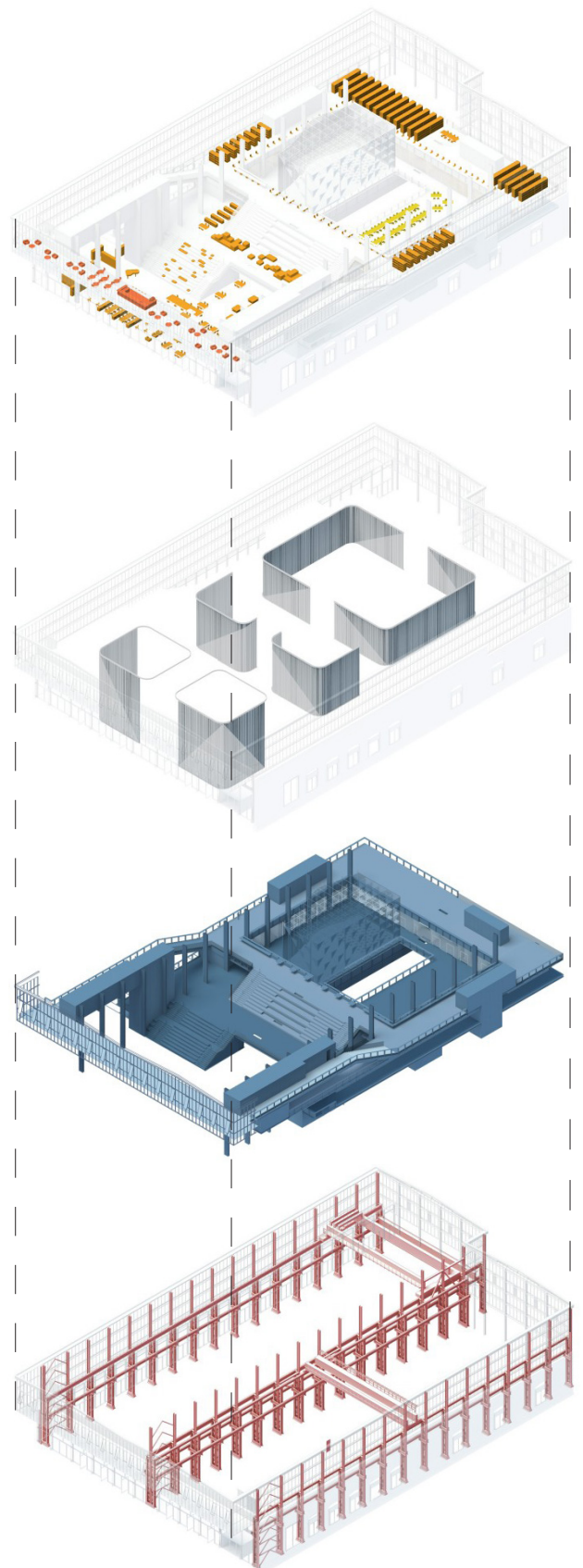


Fig. 14 An axonometry of the design and added elements in the Lochal by Civic Architects (Civic, n.d.).

MOTN

As mentioned, two-thirds of the existing structure was used in the transformation of the shopping mall. This was done from a sustainability point of view. In figure 15 it has been made visible by the architects of the project (MVSA), which parts of the former shopping mall were kept. A large part of what was demolished were office buildings. To bring the different remaining parts and the newly constructed parts together, a 'scarf' was added around the complex. It is a glass fibre-reinforced micro concrete facade that is placed around the building.

Even though a relatively large amount of the former mall was reused in the transformation, these can no longer be seen in the current building.

Both these figures are from architecture firms, they are of course referenced, but can I use this as is in the research? They portray the changes in the building very well, so it felt not logical to fully recreate them myself.

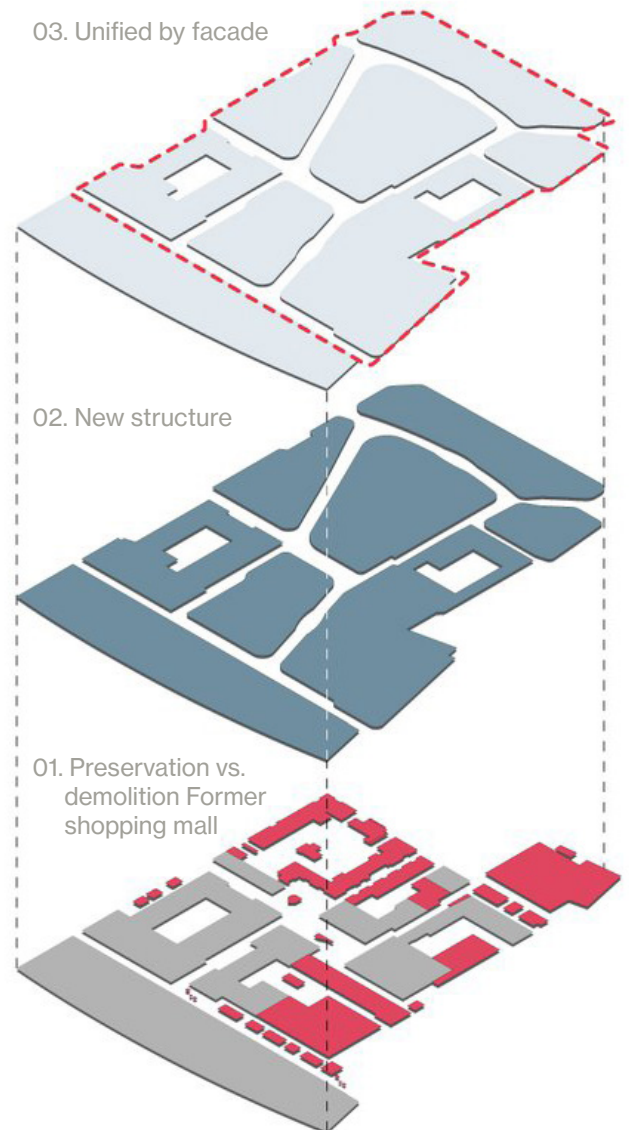


Fig. 15 An axonometry of the design process for the Mall of the Netherlands by MVSA Architects (MVSA, n.d.).

Impact of changes on neighbourhood

Changes in both buildings were significant, which would result in a certain effect on both its surroundings. Street interviews are used to distill the opinion of the residents on this subject. The location of the street interviews for the two research cases (and the design case Leyweg) are indicated in figure 16.

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.

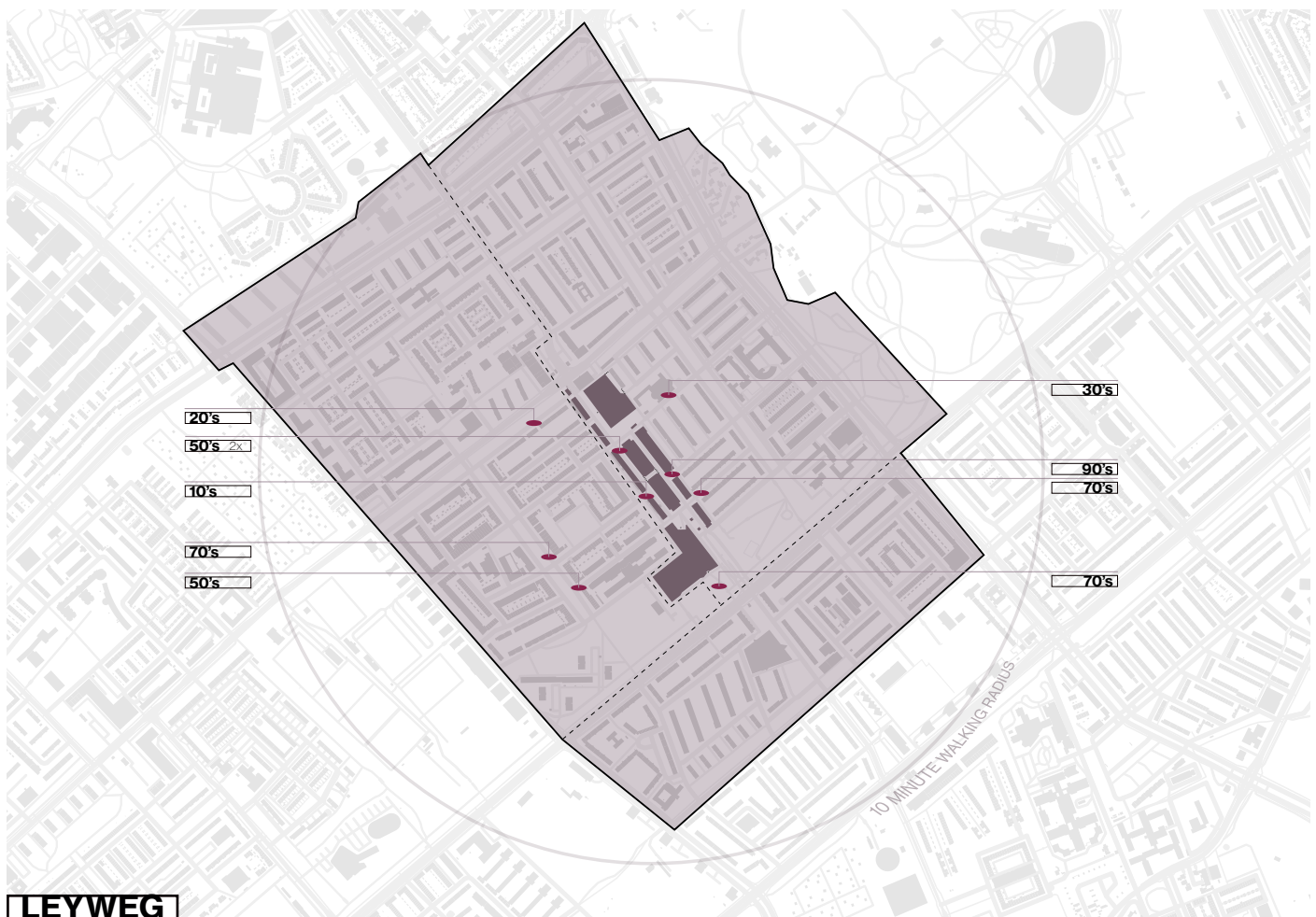
The hypothesis for the Mall of the Netherlands is that the relationship with the residents of the neighbourhood has deteriorated since the new design is focused on attracting visitors from the whole of the Netherlands. The local population is not the specific target group.

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, the whole terrain has been opened up and with the creation of a breakthrough (the Willem II passage), the north of the city has been connected to the south. 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.

When visiting the area, the use of the passage was observed. As visible in figure 17 even on a Monday morning, when observing the area for 5 minutes, already 26 people used the passage. On a Saturday morning, this number was 46. The newly added bicycle parkings were used frequently as well.

Fig. 16 Overview of the interview location in Leidschendam (MOTN), the Hague (Leyweg) and Tilburg (Lochal).





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 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

MOTN

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. 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

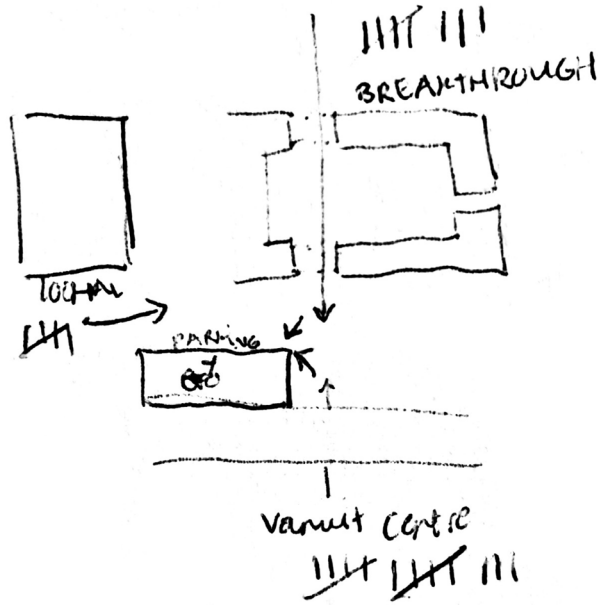
“So you had stores in Leidsenhage where everyone still knew each other. It was more of a village and this is very impersonal.”

- 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 shows 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.

Willem II passage onder spoor
 MA & MEI 10:22 - 10:29



10:46 - 10:51 SA

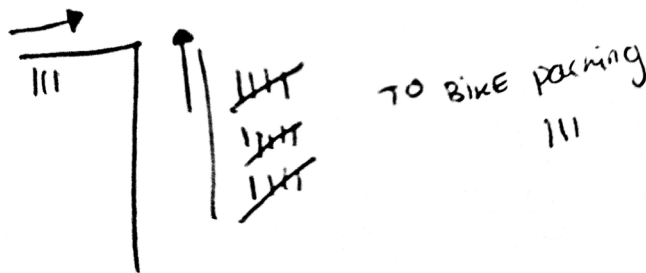
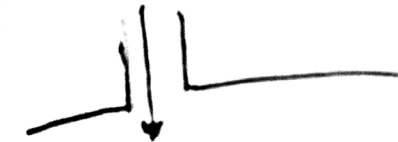
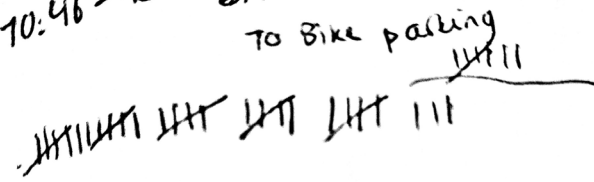


Fig. 17 The Willem II passage on a Monday and Saturday morning (Own Work).

What are the heritage values of the building?

The question will be answered through the following two subquestions:

- **What values do the residents of the neighbourhood of the Leyweg assign to the building?**
- **What values do experts (architects) assign to the building?**

For this, street interviews are used and are coded with the program ATLAS.ti. An overview of the value assessment for each case is given in appendix D.

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, some mentioned they found the building confusing due to the layout, especially for the elderly. The historical value is mentioned quite often. This was something that was expected since the building has been tied in with the city's history for a long time. During the transformation, respecting and showing original elements was important to the concept.

For the MOTN, the economic value arises 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 too many stimuli.

The Leyweg was valued as its functioning as a neighbourhood mall, but was missing atmosphere and declined in quality for many.

When comparing the values of the three buildings, it stands out that in all the top threes, the aesthetical and economic value are present.

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 and the Leyweg 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. For the Leyweg this

mostly concerned the assortment of stores that were present and the atmosphere as well.

When comparing the residents' valuation of the Leyweg to that of the architect of the transformation, there are quite some similarities to be distinguished. Aesthetical and economic values are both places as number one and two. This could be expected since an architect's work deals with a lot of aesthetical decisions and economics will always play a part in a development. The difference lies in the third value. Whereas residents value the social aspect of the Leyweg, the architect places the historic value there. Residents are the users of the space and therefore actively take part in social activities there, whereas the architect talks about the Leyweg from his designer's point of view, where the history of the site had an important role in the design decisions that were made.

	LOCHAL	MOTN	LEYWEG
1	Aesthetical	Economic	Aesthetical
2	Historic	Aesthetical	Economic
3	Economic	Scientific	Social

Fig. 18 Value assessment residents.

	LOCHAL GR= 57 GS=10	MOTN GR= 104 GS=11	LEYWEG GR= 333 GS=22
PAST NEGATIVE	3	3	5
PAST POSITIVE	2	24	42
PRESENT NEGATIVE	12	45	107
PRESENT POSITIVE	40	33	75

Fig. 19 Positive and negative values residents.

	RESIDENTS	ARCHITECT
1	Aesthetical	Aesthetical
2	Economic	Economic
3	Social	Historic

Fig. 20 Value assessment residents and architect Leyweg.

5

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.

It has to be noted as well, that during the street interviews in the Leyweg, all interviews took place in the area between the Hengelolaan and the Melis Stokelaan, therefore no interviews were done in the neighbourhood Morgenstond Zuid. This was not done on purpose, but due to the natural boundary of two busy roads, the area behind was not perceived as the research area, though it was. The benefit of this mistake though, was that it shed light on the barrier that the roads pose between the Leyweg and the neighbourhood.

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, ideally, a larger participant group would be needed. Also, in the case of the Leyweg there was a bias towards elderly people (65 years or older) since the street interviews were shared with another student who focused on this target group. 77% Of the interviews were done with people aged 65 or older, whereas, in the neighbourhood, this age group is only 12,6% (CBS, 2021). They were all included in the research to expand the number of interviewees and therefore to have more data to work and improve the results.

When comparing the results of the Leyweg residents interviews and the architect interview, it does need to be noted that the interview questions were not the same. The questions for the architect were more design based, and therefore more answers relating to certain values, such as aesthetics or history can be expected.

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.

As mentioned in the introduction, the research 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).

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.

6

CONCLUSION

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 aesthetical grounds, but in the case of the Leyweg, the social value is also placed highly. The atmosphere, described with the typical Dutch word '*gezelligheid*' is often mentioned as something positive or as something that is missing.

In the end, the mixed functions of a building were appreciated by many of the residents surrounding the three buildings. Criticism was posed on the scale of buildings, the atmosphere and the infrastructure.

Thank you for taking the time to read through the whole research. I tried to reduce it to max 4400 words, but currently I go to 5260 words, apologies for that. After the feedback I'll hope to be able to reduce the final version further! If you might have any tips on which parts to reduce on, I'd love to hear!

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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?**
Wat 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:

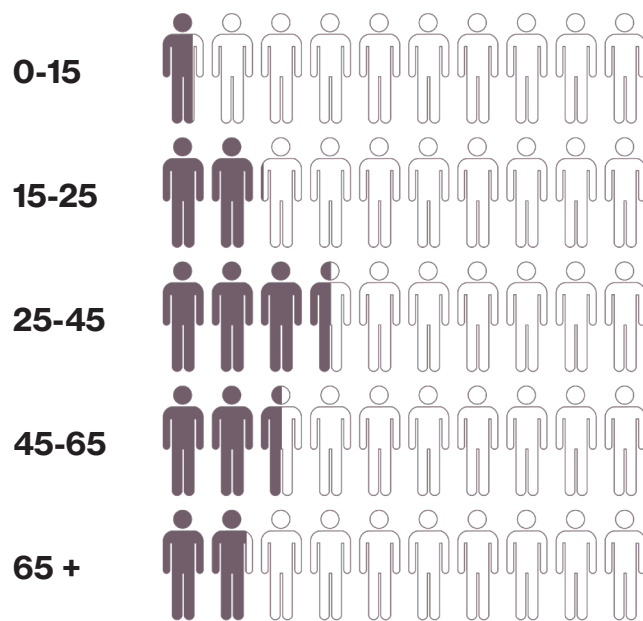
- Theresia
- Spoorzone noord
- Spoorzone zuid
- Binnenstad

They consist of the following buurten:

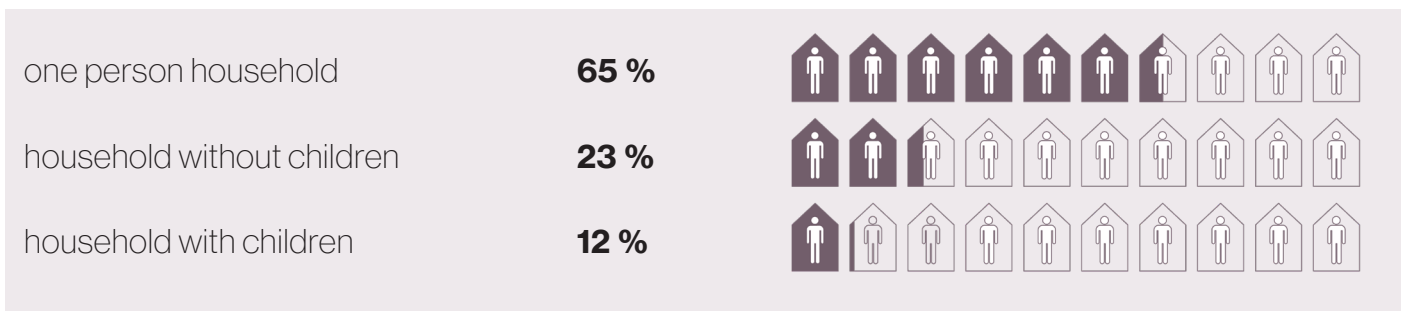
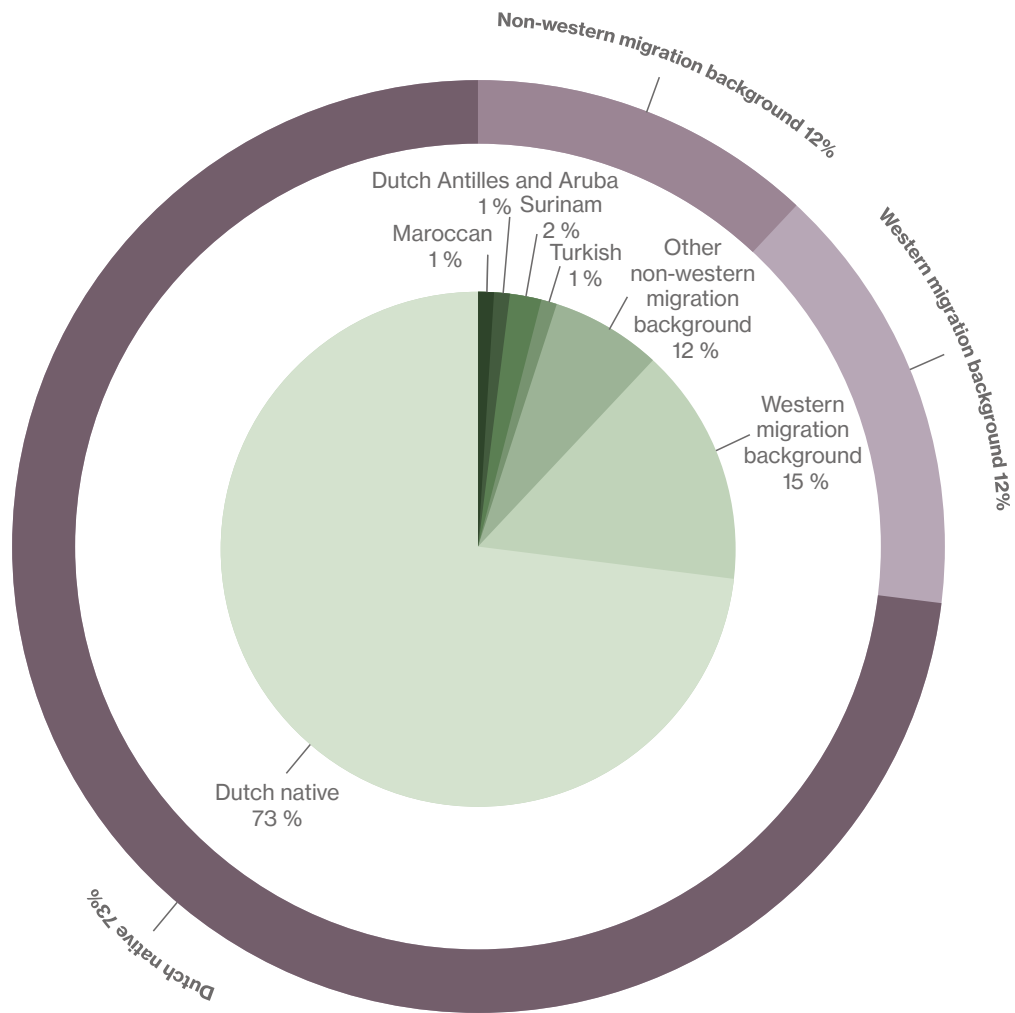
- Theresia
 - Theresia West
 - Theresia Midden
 - Theresia Oost
- Spoorzone noord
 - Spoorzone Noord-West
 - Spoorzone Noord-Oost
- Spoorzone zuid
 - VGL-terrein
 - Talentsquare
 - Spoorlaan
- Binnenstad
 - Binnenstad West
 - Binnenstad Oost
 - Oude Dijk
 - Koningsplein

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).



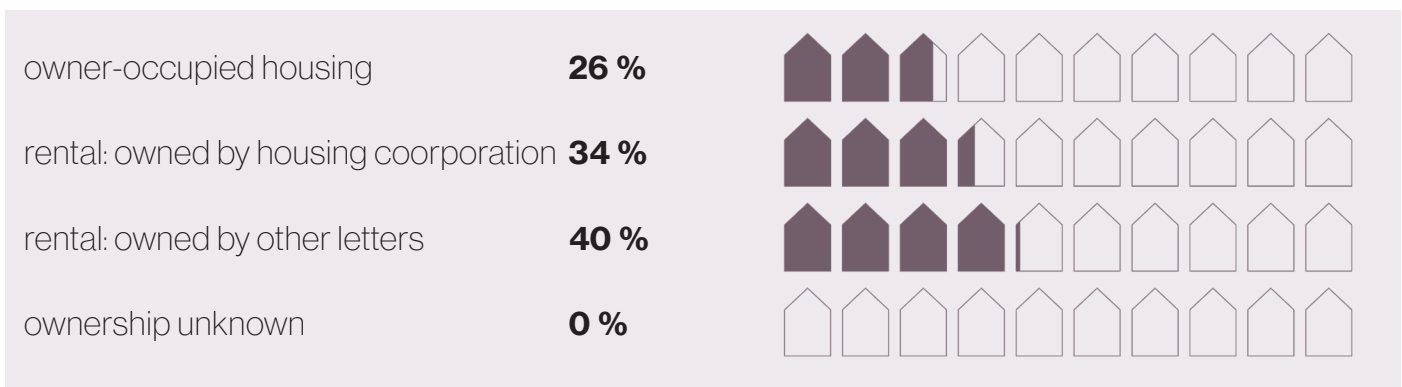
Household composition (CBS, 2021) (Own Work).

Household composition

In the buurten there are 6170 households. 4015 Households 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:

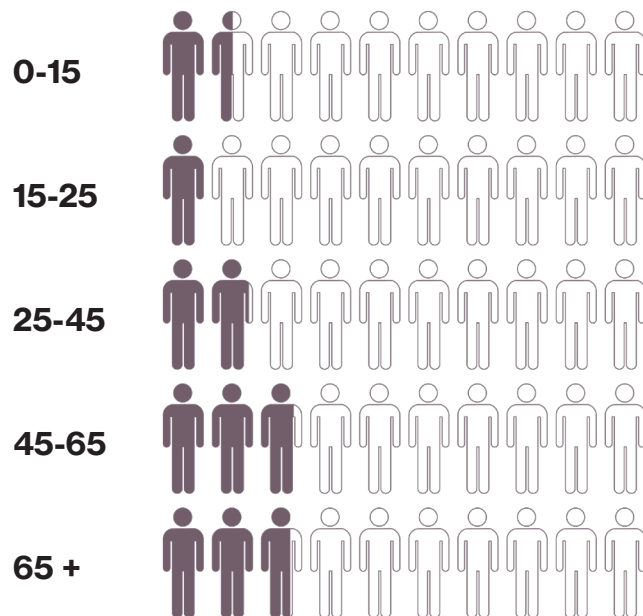
- De zijde and surroundings
- De Heuvel/ Amstelwijk
- Damsigt and surroundings
- Essesteijn

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.

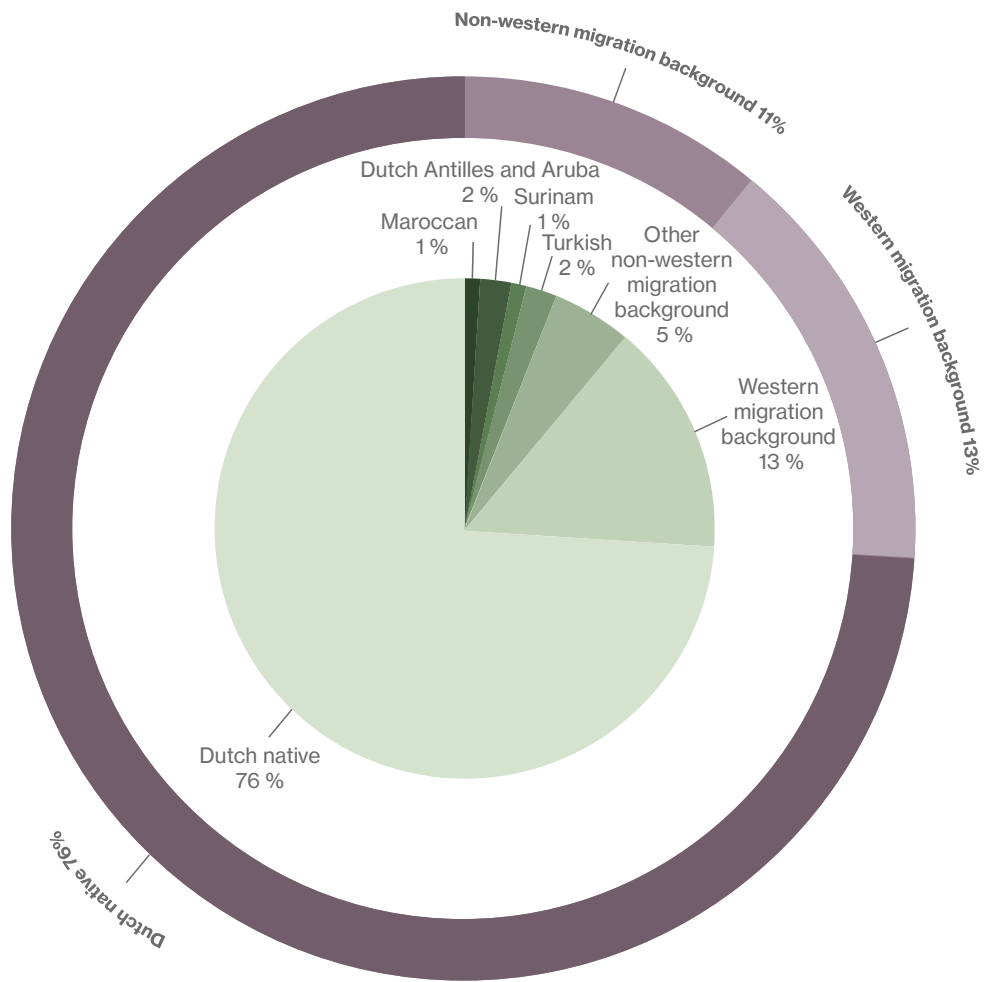
The biggest represented age group in the area is aged between 45-65 with 28,2% it is followed by the 65+ group with 27,5%, the 25-45 group with 19,1%, the 0-15 group with 15,2% and the 15-25 group with 10,0%.



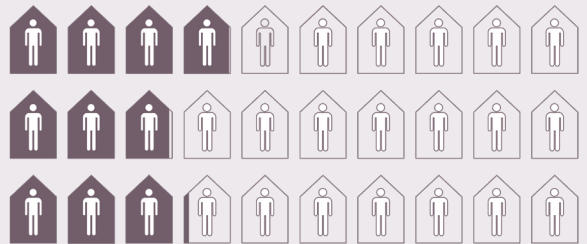
Age groups in the neighbourhoods surrounding the MOTN (CBS, 2021) (Own Work).

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%.



one person household	39,5 %
household without children	29 %
household with children	31,5 %



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

Household composition

In the buurten there are 5860 households. 2315 Households 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.

owner-occupied housing	68 %
rental: owned by housing corporation	11 %
rental: owned by other letters	21 %
ownership unknown	0 %



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

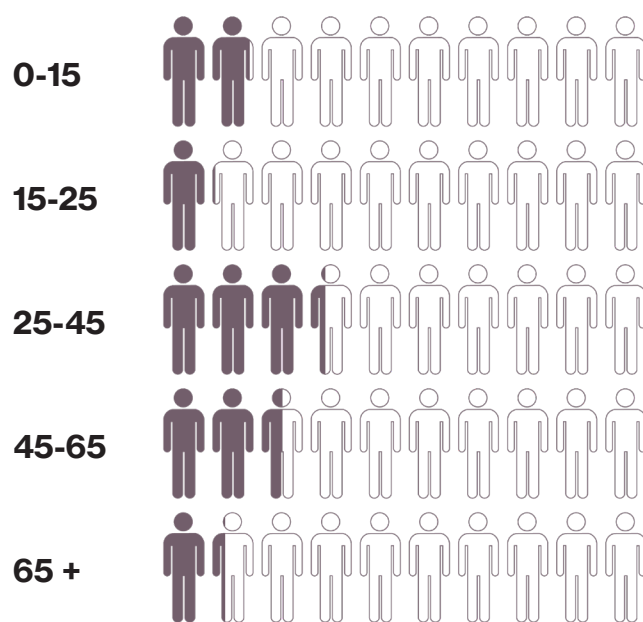
Since all the buurten in the neighbourhood are included in the research area, the demographics are displayed for the neighbourhood of Morgenstond.

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

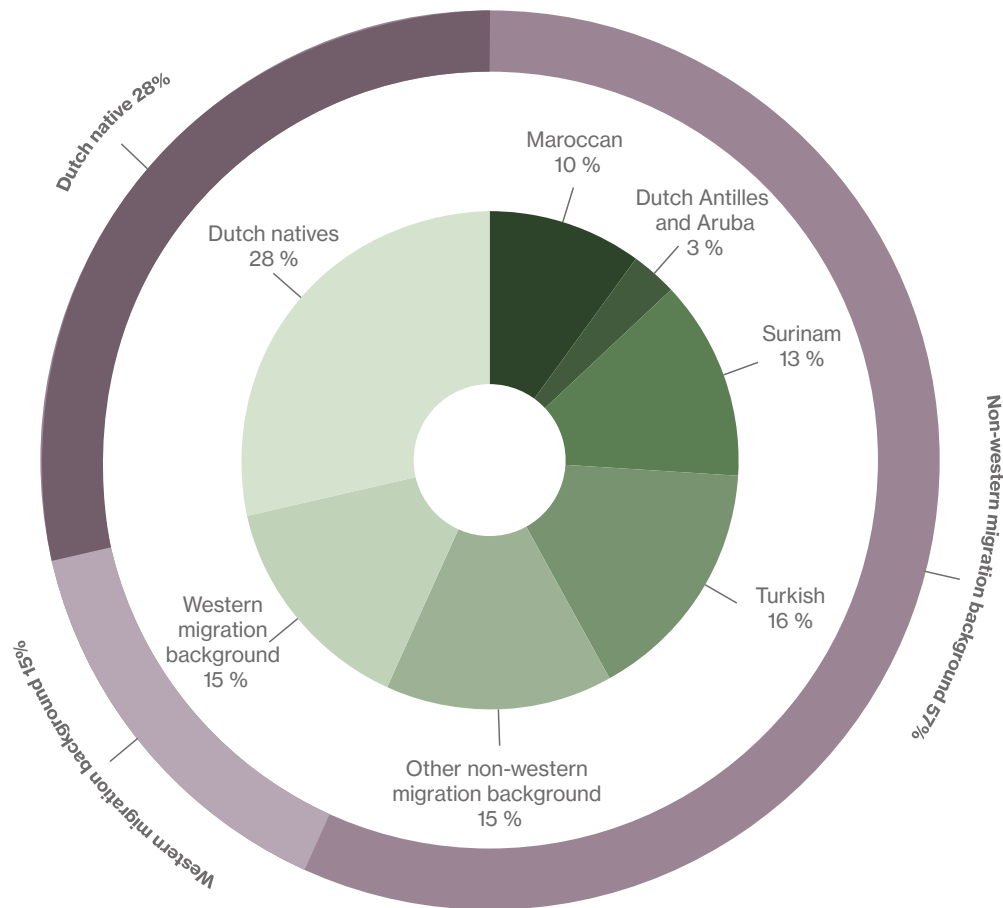
The biggest represented age group in the area is aged between 25-45 with 33,3% it is followed by the 45-65 group with 24,8%, the 0-15 group with 18,8%, the 65+ group with 12,6% and the 15-25% group with 10,5%.

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).



one person household	51 %
household without children	18 %
household with children	31 %



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.

owner-occupied housing	24 %
rental: owned by housing corporation	60 %
rental: owned by other letters	15 %
ownership unknown	1 %



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		1							
SPACE PLAN								3	3														3		3			1		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		
SITE								2			2												3		1	2					
SURROUNDINGS /SETTING								13	11		2																				

LEYWEG

	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	technical	conceptual	artistic	notable	conceptual	evidential	educational	historic - artistic	historic - conceptual	symbolic	archaeological
STUFF				5	3	2																2		2						
SPACE PLAN																							10	1	9		1		1	
SERVICES																														
STRUCTURE																							5		5		5		5	
SKIN	1	1																					13	2	5	6	5		5	
SITE	5	5		9	4	5	12	9	1	1	1	2	1	1	1	1					1		1							
SURROUNDINGS /SETTING	8	3	5	5	2	3	6	3	1		2										1		1							

LOCHAL ARCHITECT

	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	technical	conceptual	artistic	notable	conceptual	evidential	educational	historic - artistic	historic - conceptual	symbolic	archaeological
STUFF																														
SPACE PLAN																							3		3					
SERVICES																														
STRUCTURE																							2		1	1	2	1	1	
SKIN																											1		1	
SITE																							4		4					
SURROUNDINGS /SETTING	2	2		1	1		3	1		2	2	1	1								1		1							