

Life between stores

The quality of public spaces in Dutch post-war shopping malls.



Fig. 1 & 2. The shopping street Leyweg in 1964 and 2022 (Stokvis, 1964; Mortensen, 2022).

Research Paper

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Abstract.

Shopping malls are increasingly becoming vacant, resulting in deserted public spaces. This is problematic due to unsafety, waste of space and waste of economic potential. Public spaces are important because they can be the catalyst for human life, where all sorts of activities can occur. If these places are well designed, it will result in better use of the area and, eventually, a better life for the mall's visitors, the residents in the neighbourhood, and the people passing by. This research aims to find the attributes that drive a high-quality public space, thereby increasing shopping traffic and reducing vacancies. The analysis involves evaluating urban and architectural interventions using the urban quality criteria established by Jan Gehl. Two contemporary Dutch post-war shopping have been chosen to test the criteria: Leyweg in The Hague and Leidsenhage (Mall of the Netherlands) in Leidschendam. According to Gehl, the general terms of safety must be present before the other criteria from the categories of comfort and delight can prevail. This is illustrated by comparing the two malls. The traffic situation at Leyweg caused an unsafe situation for pedestrians with less space for other optional activities. Right from the beginning, Leidsenhage did not face these problems due to the presence of fully pedestrianised zones within the mall. This was solved at the latest urban and architectural intervention of Leyweg, resulting in improved public spaces in this mall. The next part of the research aims to ascertain whether the public spaces have been improved by observing the present situation. During this research phase, particular attention is given to the criteria of feeling safe, walkability, and staying. The observation has led to the conclusion that the public spaces can be improved even more by applying specific attributes from the Mall of the Netherlands. An overlap in day and night functions is necessary to improve the feeling of security at Leyweg, like at the Mall. This overlap is related to space and time. Besides, dark facades can be avoided through lights and opening shutters. Walking and seating areas can be clarified to create more activity on these routes. This can be done by zoning, such as placing public and commercial seating together and making clear routes along the facades and around the seating area.

Keywords

Shopping Malls, Design interventions, Architectural and Urban attributes, Public spaces, Urban quality criteria, Jan Gehl, Vacancy, use, activities, Safety, walking, staying

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Introduction

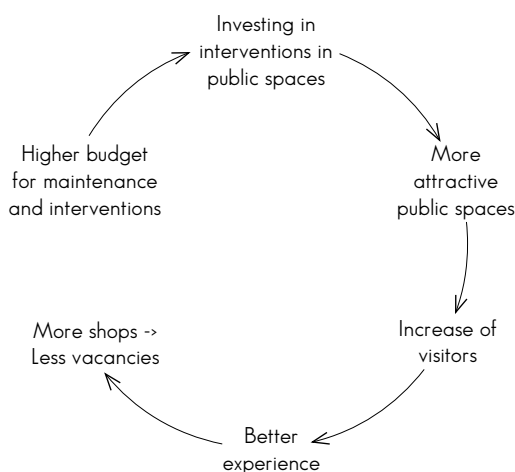
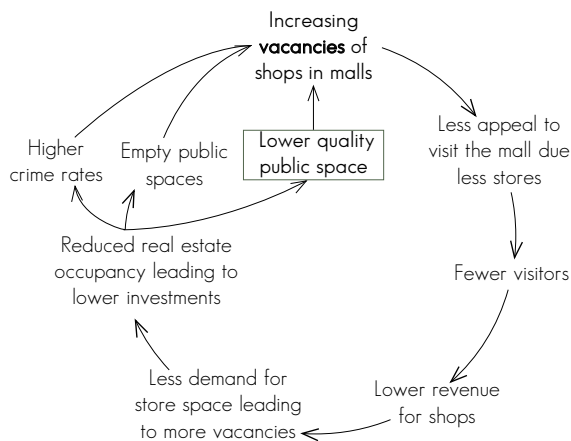
In addition to retail spaces, modern shopping malls consist of public spaces in between, such as courtyards, promenades, and walkways. Usually, these areas are meant for pedestrians and are mainly used to go from store to store. Apart from shopping, these pedestrian paradises can also serve as places where people can pause, meet, converse, unwind, and engage in playful activities (Beddington, 1991). These activities will increase when public spaces are well-designed public spaces. Besides the fact that retail sales are stimulated, they serve as a catalyst for human activity and interaction, unifying different people (Gehl & Rogers, 2010). By encouraging people to linger in the area, these areas can attract more visitors and create a positive image of the surrounding area (fig. 9) (Jagannath, 2016).

As the vacancy of stores increases, the primary purpose of the visit to the mall decreases, also leading to a decline in activity in the surrounding public spaces. The shopping mall Leidsenhage in Leidschendam is one of the many examples in the Netherlands that has dealt with this problem (fig. 3) (Van den Eerenbeemt, 2021/Gemeente Leidschendam-Voorburg, 2015). Store vacancies are problematic because the decline in economic activity and investment levels will result in a vicious cycle of even more vacancies (fig. 6) (Van Zweeden, 2019). Besides a loss in economic activity, vacancies also contribute to this activity decrease, causing a sense of unsafety, which can adversely affect the overall quality of life (fig. 4) (Jacobs, 1961/1992).

As e-commerce offers an alternative to visiting malls, consumers can now order products from the comfort of their homes (Van den Eerenbeemt, 2021). To remain relevant, shopping malls must provide a more comprehensive experience beyond mere shopping (Ram, 2017). By reinventing itself and transforming into The Mall of the Netherlands, Leidsenhage now includes concept stores, social media photo booths, and showcasing products such as cars (fig 5) (Van den Eerenbeemt, 2021). Furthermore, public spaces are changing as consumers look for a place to shop, relax, meet, and enjoy themselves. In this way, an attractive public space can complement the stores and help create an environment that is more than just a place to buy products—offering an alternative experience



3. Vacancy in de Bogaard (Nijhuis, 2018).
4. example of unsafety in a Dutch shopping mall dealing with vacancy. A group hangs in front of the entrance (De Orkaan, 2023)
5. Youseum, a social media experience in the Mall of the Netherlands (Bakker, 2021).



to e-commerce hence remaining a relevant mall (Banerjee, 2001). When public areas in malls are well-designed, clean, safe, and accessible, people can be attracted, increasing foot traffic and customer demand and contributing to the success of existing stores and other businesses in the area (Landry, 2008). Therefore, investing in public spaces' quality and potentially breaking the vicious cycle would be a valuable strategy for reducing store vacancies (fig. 7).

Early development in public spaces was influenced by architect Victor Gruen, creating the concept of the modern mall focusing on a pedestrian-centric public space (Hardwick, 2003). This was followed by urbanists Jane Jacobs and William Whyte, arguing that the human factor was underdeveloped in designing public spaces and should be given more attention in general (Sim, 2019). These ideas were further developed in extensive research by Danish architect and urban design consultant Jan Gehl (born 1936). He stresses that urban quality depends on the relationship between the city and the people. To obtain this relationship, the conditions need to be altered, leading to an increase in multiple activities: 'necessary', 'optional', and 'social'. Increasing optional and social activities will encourage people to stay in the city longer than necessary. The longer they stay, the greater the chances are that people exchange contact. In design, it is possible to create better conditions that influence patterns or activities of people, resulting in lively cities and, eventually, a better life for people (fig. 8) (Gehl, 1971). By applying 12 quality criteria to the pedestrian landscape, it is possible to improve the conditions of urban quality, according to Gehl (appx. 1) (Gehl, 2010).

	Quality of the physical environment	
	"Poor"	"Good"
Necessary activities	●	●
Optional activities	●	●●●●
'Resultant' activities (Social activities)	●	●

Although much research exists on improving public space, the public space in malls is less researched. The research by Gehl is generic and applicable to various urban settings such as streets and parks. To what degree can his method be applied to specific public spaces in shopping malls? What is the impact of past interventions on the quality of public spaces in malls? Which urban and architectural attributes are necessary to improve the existing public spaces? This research aims to bridge the gap between more generic studies on public spaces and their practical application to shopping malls by applying Gehl's criteria to public spaces of malls. This research aims to

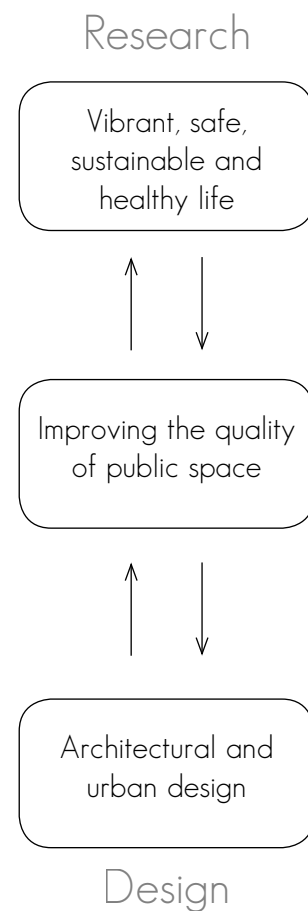
6. The vicious cycle of increasing vacancies of shops in malls (Mortensen, 2022).
7. Reducing vacancies leading to a positive vicious cycle
8. Scheme from Jan Gehl: when the quality is "good", this will lead to a different behaviour of its users (Gehl, 2011)

find the attributes that drive a high-quality public space, thereby increasing shopping traffic and reducing vacancies. This has led to the following research question:

How can urban and architectural interventions improve the quality of public spaces in Dutch post-war shopping malls?

Of course, improving public spaces is just one solution to prevent vacancies, but they are essential, nonetheless. With appropriate, high-quality public spaces, the mall can be transformed from a single-use destination just for shopping to a location where consumers can do their shopping but relax, meet, and enjoy themselves, ultimately, a better life. This strategy could also contribute to providing an alternative to e-commerce.

This paper will start by outlining the particular methodology employed in the research, followed by a description of the results obtained. Finally, the article will conclude with a discussion of the findings.



9. People choose to sit in public spaces (Johan, 2011).

10. From research to design (Mortensen, 2022)

Methodology

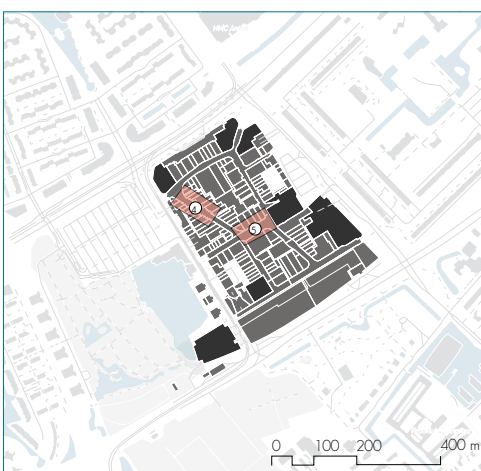
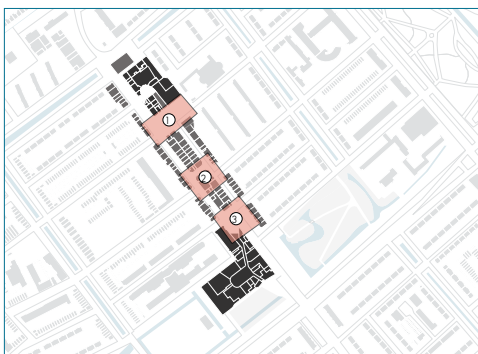
Various methods are applied in this research to discover how public spaces in malls can be improved. Two case studies have been chosen to study interventions: Leidsenhage (The Mall of the Netherlands) in Leidschendam (1972) and Leyweg in The Hague (1958). Both malls were built simultaneously but varied in spatial layout and concepts.

First, the interventions over the years, the motivations, and their impact on the public space of both cases have been analysed. Three to two public spaces within the shopping malls were selected, varying from streets to squares (fig. 11 & 12). The information is collected from historical photos of the archive, maps, and drawings. For each case, three periods are compared, highlighting the most significant urban and architectural interventions in the public areas. Blue highlighting indicates changes in each plan and section to provide a comparative overview in a consistent style and scale.

Documents of intervention plans were studied for motivations and differences of interest per stakeholder group. The motivations are compared to discover which Gehl criteria they align with. Based on the criteria, this comparison can reveal whether one mall has been improved or has higher quality than the other and why.

The outcomes of the previous research will be compared to the present situation of the same public spaces to discover whether the public spaces in both malls have been improved. For the present situation, field observation is used as a method for data collection.

To identify the Gehl criteria in public spaces, several questions were pre-drafted to assess whether a criterion is present. Templates were used to visualise behaviour types in a public space (Gehl Institute, n.d.). The movements or stationary activities in a public space are counted and traced on a map of the outlined area. This map shows the correspondence between the activity types and the objects. The data was collected during multiple field trips on four different days, at times and in different weather types, which the latter did not make any difference for the Mall of the Netherlands since it was always inside. This is done to get a complete and concise overview of people's behaviour (Gehl Institute, n.d.). Participants' anonymity has been preserved by taking pictures from the back and using the photos for research purposes only.



11. The selection of the three public spaces in Leyweg (Mortensen, 2023)
12. The selection of the two public spaces in Leidschendam (Mortensen, 2023)

Results

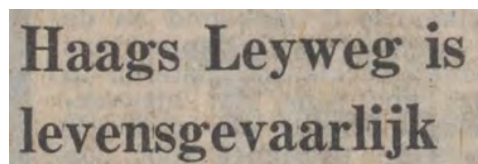
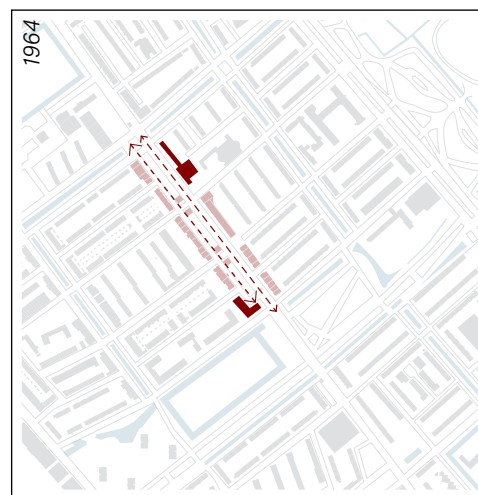
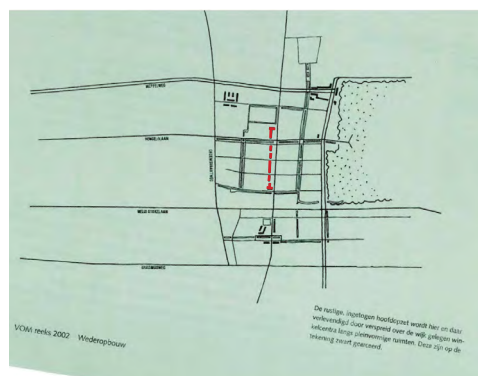
1. Interventions

The first part of the research aims to discover which interventions were done in the public areas of the malls and why they were thought necessary by various stakeholders. This study provides an overview of how public spaces have changed over time and how this is expressed in their urban and architectural characteristics. It is possible to identify the quality criteria they align with and define which criteria were more relevant to the interventions in one mall than the other.

1.1 Winkelcentrum Leyweg, The Hague (built in 1958)

The Leyweg owes its shape to the urban plan of Dudok (fig. 13). It was never supposed to be a mall in the first place but merely a vital traffic road. Reflective of its time, the focus was on prioritising cars, and thus the road was kept as a traffic thoroughfare combined with a shopping centre. This explains why the width of the “shopping lane” is 55 meters and the division of both shopping lanes of two car roads, parking places and bike lanes (Valentijn, 2002) (fig. 14 & 16). Car traffic has been the dominant factor at Leyweg for decades, and the primary source of user complaints and unsafe situations for pedestrians (fig. 15). The road structure created a physical barrier between the two pedestrian lanes on either side, and the mall did not have the ambience of a unified shopping street. The criterion of protection for traffic is missing, and the criterion of protection against unpleasant sensory experiences accompanies this absence. The car’s dominance leads to many emissions on the street, resulting in a less pleasant user experience.

After some time, the municipality decided to intervene in the road structure. This decision was taken in response to the increase in car traffic and prevailing unsafe conditions, which contradict. Spite narrowing down the lower road for slow traffic, the division and the cars remained in the street scene. Hence, in the 1990s, a decision was made to carry out a large-scale intervention, altering the traffic system completely. The entire public space has been pedestrianised without any traffic differentiation, offering more protection for pedestrians (fig. 16). The existing squares have been enlarged near the two retail poles, Hema, and V&D, offering enough space for

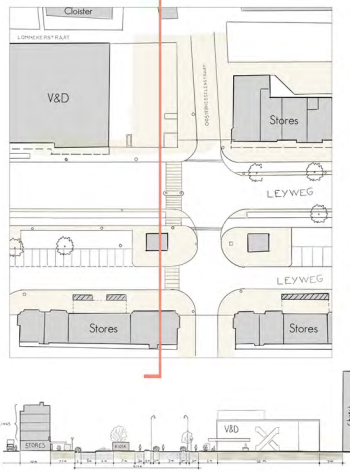


13. Dudok plan, Leyweg in red (Valentijn, 2002)
14. The road system at Leyweg in 1965 (Mortensen, 2023)
15. Newspaper headline issuing the unsafety of Leyweg (Trouw, 1975)

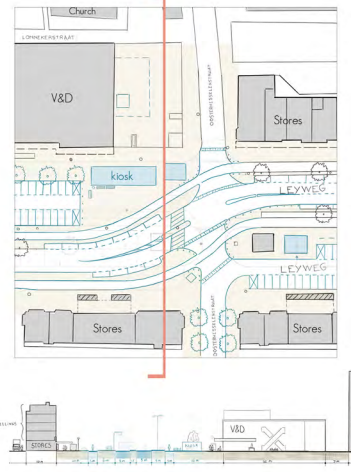
Interventions Leyweg - north square



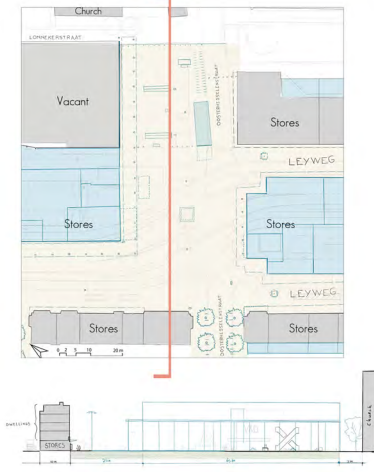
1965



1985



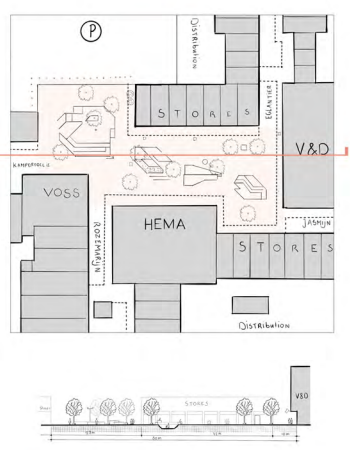
2003



Interventions The Mall - "Berkenhove" / central square

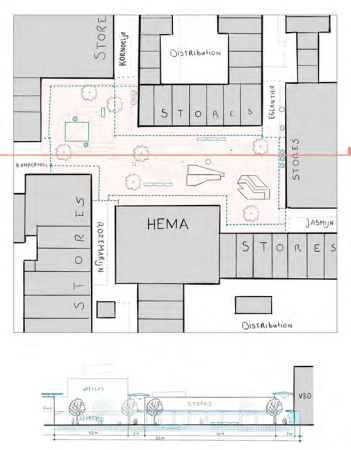


1972



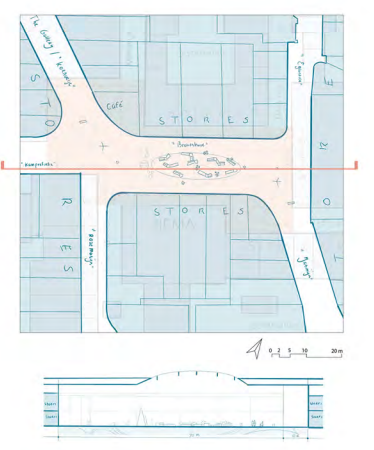
(JosPé, 1972)

2016



(Aluminium Kunst Leidschendam, 2017)

2022



(Own picture, 2022)

16. Comparison of two public spaces at both shopping malls

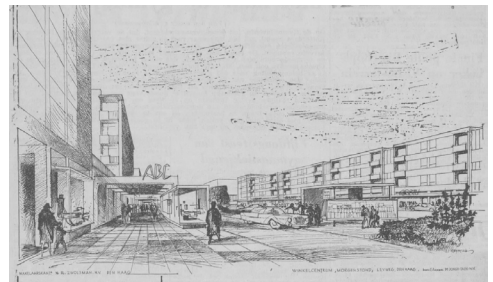
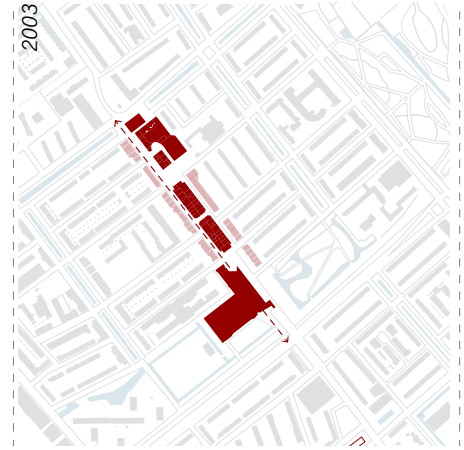
placing other objects, such as benches, which will stimulate the presence of the category “comfort” criteria, like places to sit. Due to the large width of the street, a decision was made to create two separate shopping streets by adding another strip of retail between them. It is difficult to determine whether this has improved, as the building blocks are now dividing the pedestrian lanes even more by forming a visual and physical blockage in both directions (fig. 17). The mall’s longitudinal layout, which provides long sightlines for better visibility (criterion: the opportunity to see), is compromised in its current state.

1.2 Leidsenhage, Leidschendam (built in 1972)

In contrast to Leyweg, Leidsenhage was always intended to be a suburban shopping mall in The Hague, modelled after the American concept of pedestrianised streets surrounded by parking lots (fig. 18 & 19) (Buskens, 1972). There was never the issue of feeling unsafe for traffic because it was utterly pedestrian-centric (quality criterion - “traffic safety”). More minor interventions were done over time, such as introducing more canopies to protect from the weather (quality criterion - “climate”). A large-scale intervention was performed in 2016, completely stripping the mall to its core and rebuilding it into a large volume with internal pedestrian lanes and squares (fig. 20). The so-called Mall of the Netherlands was transformed because the design and appearance no longer met today’s requirements. The increasing vacancy rates indicated the failure of the shopping mall model, and it was the primary reason for the intervention. The concept had to be altered with high-quality public spaces to make the mall future-proof.

1.3 Interrelated criteria

According to Gehl, the general terms of safety must be present before the other criteria from the categories of comfort and delight can prevail (fig. 21). This comes down to the fact that the urban quality criteria are interrelated (Gehl, 2010). Because Leidsenhage was car-free entirely from the start, there was enough space to incorporate various attributes that facilitate activities such as sitting, standing, and playing. At Leyweg, the presence of these attributes was considerably limited before the



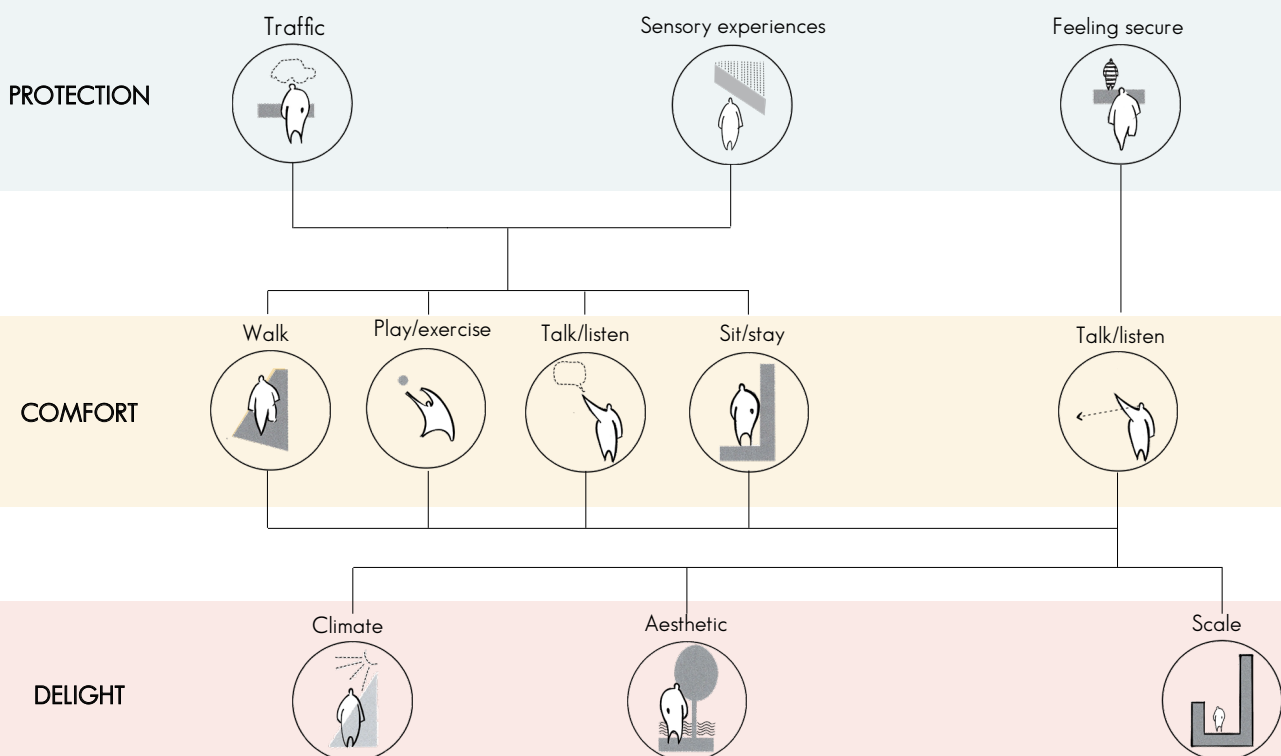
17. The latest intervention at Leyweg (Mortensen, 2023).
18. The sketched vision for Leyweg with the car prominent (Binnenhof, 1955)
19. The sketched vision for Leidsenhage as a pedestrian paradise (Gemeente Leidschendam, 1970)
20. The current Westfield Mall of the Netherlands

latest intervention. The criterion "opportunities to see" did not improve after the latest intervention and is therefore unrelated to traffic protection. People feel safer when there are enough lighting or unhindered sightlines, and this criterion is, therefore, related to feeling secure.

2. Observations of the quality criteria

The question now arises: To what degree have the interventions improved the public spaces in both malls? For instance, in the present state, does the elimination of traffic and pedestrianisation of streets work well? When observing the present situation of both malls, several criteria stood out: 1) Protection - feeling secure; 2) Opportunities to walk; 3) Opportunities to sit. These criteria are analysed and the first criterion, feeling secure, will be further explained. Through comparison, it will be possible to identify the attributes that impact the quality of public space and indicate how the spaces can be enhanced.

Interrelated quality criteria



2.1 Protection - Feeling secure

One of the criteria that define a high-quality public space is crime prevention to ensure a sense of security when moving about the city. Dark, deserted spaces and streets promote a feeling of insecurity. Safety comes from the presence of others and the possibility to participate in activities. Achieving this requires diverse functions like housing, offices, shops, and restaurants, which ensure that lights are on in the windows and people are nearby at all times of night and day. A lack of activities results in a deserted city at night, where people avoid coming (Gehl, 2010).

First, the activity on the ground floor has been observed at Leyweg. Of all the ground-floor facades surveyed, 84 percent remained inactive during the night. This implies they were closed or vacant, with no lights on or secured behind metal shutters. Twelve percent of the facades were open, indicating the lights were on, but the establishments were closed. Lastly, approximately 4 percent of the observed facades had establishments that remained open at night, mainly related to food and beverages (fig. 22). Besides this, there were no active areas with a high concentration of evening activities at Leyweg. The open establishments were spread out over the mall. Nevertheless, there is an overlap in functions manifested in the upper-floor dwellings at certain places, which contributes to an enhanced sense of security due to the presence of street watchers.

Active facade = 4%
 Opened facade = 12%
 Closed facade = 84%



The public spaces in the Mall of the Netherlands were not accessible by night since these areas were closed off for public use by night. However, these facades were still partly visible from another open part of the mall, and the facades had the lights on. To compensate for the retail part being closed, the other open part of the mall mainly consisted of establishments focussing on night entertainment.

Both malls have different strategies when dealing with safety by night, originating from their different concepts. Retail dominance primarily characterises them as this is the most common function. As the Mall consists mainly of indoor spaces, closing off the retail section during night-time becomes convenient. To compensate for this, another part stays open, more focussed on night entertainment. Leyweg being mostly an outdoor shopping street, is always open and accessible. At night, only a few scattered functions remain open as retail-oriented functions are closed. In addition to that, the closed establishments contribute to creating a dim and uninviting storefront. This is slightly compensated by the upper floor dwellings functioning as the street watchers at Leyweg. Since the latest intervention, Leyweg was primarily designed to prioritise pedestrians over other traffic users. However, the lack of sufficient activity in this area remains a concern. The diminished footfall during night-time on the streets reflects a reduced motivation to visit the mall during those hours. So, comparing both malls, there are two ways of dealing with safety. Either close off the part with a similar function and leave another part open by night, which is an overlap in time. The other way is by creating a diversity of day and night functions at the same place.

2.2 Comfort - Walking and Staying

City life is more than just walking. When there is a lack of

conveniently located and inviting seating areas for resting, the public realm transforms into a mere transit zone where only walking occurs. When the city environment has poor walking conditions, it discourages individuals with specific needs from participating and significantly diminishes opportunities for enjoying the city. It is essential to cultivate an inviting atmosphere encouraging people to spend time in the city (Gehl, 2010).

When comparing Leyweg with the Mall, a couple of things stand out (fig. 23). At Leyweg, there were various places for outdoor servings scattered around the streets and squares. Besides this, there were plenty of public seating options and varied, limited informal seating, such as the stairs of a step. The public and commercial seats were not frequently used, which the cold weather and the fact that it was outside were also probably responsible for. Besides this, people mostly stood at the edges and corners of buildings or near eyecatchers. The main walking route occurs mainly at the lower part of the squares, and the upper parts are significantly quieter. These are also the places where the most social encounters are taking place.

At the Mall a variety of seating options are spread throughout the mall. However, none of them are informal. Both types were frequently used and placed in the middle of the streets and squares. The main walking routes, both frequently used, were going around the seating areas. Lines and type of flooring indicated zones for seating and walking. There were, however, not many spontaneous social encounters along the route, only at the destined seating areas.

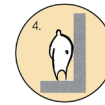
Both malls have enough seating options, but at Leyweg, the seats were not frequently used. This has to do with multiple factors, such as the fact that the seats are not located near the main walking route, there is not enough protection from the cold weather and the quality of the benches. Besides this, seats are spread out over

time and especially at the north square, there are no clear zones for seating and walking, represented by the many variations in routes people take and the low frequency of people passing by. Seats are placed in the corner of the square, away from the serving area. The material used is everywhere the same, and there is no difference.

Places to stay

Pausing from shopping

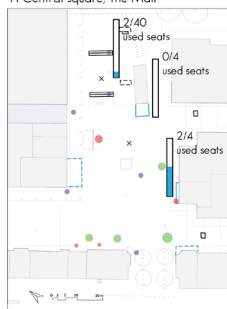
Fri 2-12-22	3 °C		3-5 PM
Sat 3-12-22	3 °C		1-3 PM
Wed 7-12-22	3 °C		2-4 PM
Sat 10-12-22	1 °C		12-2 PM



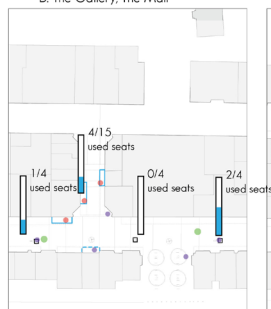
- Strøget - Copenhagen: 9 seats per 100 metre
- Insign shopping street in Copenhagen
- Regent Street: 0 seats per 100 metre
- Tottenham Court Road: 2.25 seats per 100 metre
- Charing Cross Road: 2.25 seats per 100 metre
- New Oxford Street: 0 seats per 100 metre
- Leyweg: 16 seats per 100 metre
- The Mall: 30 seats per 100 metre

A. Central square, The Mall

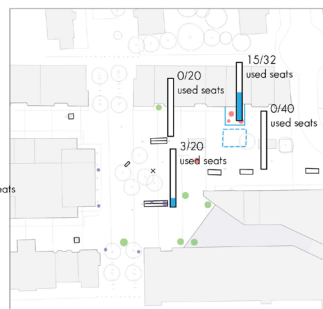
B. The Gallery, The Mall



C. North square, Leyweg



D. Middle part, Leyweg



E. South square, Leyweg

- Outdoor serving area
- - - Temporary serving areas
- Public seating
- - - Informal public seating
- Commercial activity
- Social activity
- Standing / staying
- × Multiple movement (playing/sporting)

Walking along

The movement in pedestrian areas



A. Central square, The Mall

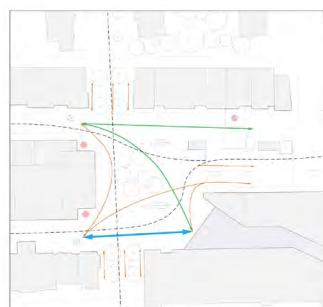
B. The Gallery, The Mall



C. North square, Leyweg



D. Middle part, Leyweg



E. South square, Leyweg

- Bicycle route
- Frequent route
- Average route
- Little used route
- Obstacles

Discussion

Improving public spaces is not the only solution for reducing vacancies in shopping malls, but it can be part of the solution. Other important factors are, e.g., marketing and promotion, collaborations and a mix of tenants (Van Zweeden, 2019). One could question whether the mall is still relevant in the current time of e-commerce. Is the approach of turning malls into spaces driven by experiences, which the Mall of the Netherlands is adopting, the right way forward? Can public spaces contribute as a solution? Therefore, this research aims to find the qualities for making spaces where users can, besides shopping, relax, meet, and enjoy themselves and ultimately benefit from a better life. These attractive public spaces will increase their use and become desirable destinations, regardless of the shopping mall's function.

By comparing the results of the case studies, it is possible to identify the specific characteristics that must be present in a public space for a particular criterion to prevail more than in the other shopping mall. Finally, this analysis can help identify the key characteristics that contribute to the success of public space in a mall. The characteristics identified can also serve as a basis for defining the values of malls, and by highlighting them, certain activities, such as sitting, can increase even more.

The criteria of Gehl can be helpful by identifying what attributes define a high-quality public space, and it can be a way to deal with young heritage. Most modern Dutch shopping malls are not assigned as national monuments, allowing these complexes to change more often. This is also reinforced by its retail function, which constantly needs to change to keep up with fashion. Applying the criteria makes it possible to point out which are primarily present in both malls over time and are therefore essential to keep. By analysing the interventions, it was possible to find a link between solving the traffic situation and increasing public space for pedestrians allowing other activities to occur. This further demonstrates that the criteria outlined by Gehl are interrelated, not only in public spaces in general but also within malls. Public space with places to sit, stay, see, or do other activities is an important part of the malls. On the other hand, values have also been lost over time. One of the main characteristics of Leyweg was the long axis creating clear vistas allowing people to see where to go. This image has become

more clouded with the latest addition of multiple building blocks.

This research focused on identifying the criteria standing out being "feeling secure" and "walking" and "staying". To comprehensively understand the quality of the public spaces, this research can be expanded by studying every criterion of Gehl to test further whether the interventions have improved the public spaces. One implication of identifying these attributes is the quest to discover them since many factors can be responsible for a specific behaviour, such as the weather, the day, time, or events. This makes it more challenging to conclude the research.

Conclusion

Through the study of interventions, it has been observed that specific criteria can only be present in a public space once other issues have been resolved beforehand, as Gehl stated. For example, at the Leyweg, the safety criterion for traffic situations was absent for decades. The dominant presence of the car in the shopping street(s) resulted in numerous long crossroads between the shopping facades. Pedestrians were subjected to both a fear of traffic and exposure to the noise and fumes emitted by cars. For the comfort criteria to prevail, the criteria for protection must be present first. The traffic situation was resolved in the significant intervention of the '00s, providing sufficient space for walking, talking, listening, standing, sitting and, when exploited, playing and exercising, corresponding to the criteria. The criteria mentioned were already more prevalent from the start at Leidsenhage, as the concept of this mall was entirely focused on pedestrians, creating more space for playing, sitting, and walking elements. Once there is more space for performing these activities, it is also possible for people to enjoy the positive aspects of the climate (criterion), e.g., benches in the sun or shade. This has led to analysing and observing these criteria in greater detail in the present state. One criterion already present at Leyweg due to its long unhindered sightlines was the "opportunity to see". This view has been obstructed in the latest interventions by adding two large volumes at either end of the mall. This long vista back will also create a greater sense of security because people can see where to go. In the heritage context of this mall, it is essential to bring this criterion back. For the presence of these criteria, it works the other way around, the ability to see first and feel safe then. To conclude, the public spaces improved for most criteria during the latest intervention at Leyweg.

In the second part of the research, a few criteria were analysed in closer detail: "feeling secure", "opportunities to walk", and "opportunities to stay". By observing the criteria in the public spaces, it has been possible to state that the Mall of the Netherlands outperforms the Leyweg in all of them. A few points were prominent when testing the actual quality of these criteria through observations of both malls. Compared to the Mall of the Netherlands, a point of attention for the Leyweg is 'feeling safe'. The architectural and urban attributes required to enhance this sense of security include having a sufficient

overlap of (day and night) functions in space and time. The Mall has mainly functions that overlap at different locations within that time, which are more frequently used at different times of the day. The retail section is primarily attractive to use daily, and the entertainment and food section by night since the retail is closed. Closing an area off would be difficult for Leyweg since the mall is accessible outdoors. Another way of creating more overlap is by placing different functions locally at the same place, which are opened at different times of the day. This is happening somewhat in Leyweg through housing mixed with retail, but it can certainly be expanded. A more active area can also be reached by leaving the lights on the ground floor facades and not closing the shutters.

Concerning the last criteria, walking, and staying, it is possible to state there is enough space for walking and sitting at both malls. At Leyweg, walking primarily occurs along specific routes, while other pathways are often neglected. Additionally, the upper sections of the squares lack precise definitions, resulting in numerous routing options and potential confusion. To address this issue, one potential solution is to introduce clearly defined zones, similar to those implemented at the Mall, that cater to various activities for different users. By incorporating designated areas for sitting, walking, standing/staying, and playing, the problem of inactive zones can be solved. Attracting more people to a given area can be achieved by implementing minor elements or floor markings. Additionally, this approach can help establish a sense of control and identity among users, providing clear guidance on where to go.

The latest urban and architectural interventions have improved the public spaces of Winkelcentrum Leyweg. However, when taking a closer look at the present situation, it is possible to conclude that this can be enhanced even more by applying specific attributes from the Mall of the Netherlands.

Bibliographical references

Banerjee, T. (2001). The future of public space: beyond invented streets and reinvented places. *American Planning Association. Journal of the American Planning Association*, 67(1), 9-24. <https://doi.org/10.1080/01944360108976352>

Beddington, N. (1991). *Shopping Centres, Second Edition: Retail development, design, and management* (Butterworth Architecture Library of Planning and Design) (2nd ed.). Architectural Press.

Buskens, P. J. G. (1972). Winkelcentrum "Leidsenhage" te Leidschendam. *VGB De Bouwt*, 1(6), 6-11.

Van den Eerenbeemt, M. (2021, March 18). *Luxe of leegstand? Veel winkelcentra staan voor een zware keuze*. De Volkskrant. Retrieved October 7, 2022, from <https://www.volkskrant.nl/nieuws-achtergrond/luxe-of-leegstand-veel-winkelcentra-staan-voor-een-zware-keuze~b7fdb4f0/>

Gehl, J., & Rogers, L. R. (2010, September 6). *Cities for People* (Illustrated). Island Press.

Gehl, J. (2011, January 17). *Life Between Buildings: Using Public Space* (Sixth Edition). Island Press.

Gemeente Leidschendam-Voorburg. (2015). *Bestemmingsplan*. Planviewer. Retrieved January 7, 2023, from https://www.planviewer.nl/imro/files/NL.IMRO.1916.leidsenhage-VG01t_NL.IMRO.1916.leidsenhage-VG01.html#_1.1_Aanleiding

Gehl Institute. (n.d.-a). *Tools Archive*. Gehl People. Retrieved October 18, 2022, from <https://gehlpeople.com/tools/>

Hardwick, M. J. (2004). *Mall maker: Victor Gruen, architect of an American dream*. *Choice Reviews Online*, 41(10), 41-5707. <https://doi.org/10.5860/choice.41-5707>

Jacobs, J. (1992). *The Death and Life of Great American*

Cities: The Failure of Town Planning (Vintage Books ed.). Random House Usa Inc. (Original work published 1961)

Jagannath, T. (2016). *The Importance of Public Space*. Retrieved from Medium: <https://medium.com/interviews-andarticles-on-art-public-spaces/the-importance-of-public-spaces-5bb49ba6c000>

Landry, C. (2012). *The Creative City: A Toolkit for Urban Innovators*. Earthscan.

Ram, S. (2017). Meeting millennials where they shop: Shaping the future of shopping malls. *McKinsey & Company*. Retrieved March 16, 2023, from <https://www.inovaconsulting.com.br/wp-content/uploads/2017/03/Meeting-millennials-where-they-shop-Shaping-the-future-of-shopping-malls.pdf>

Sim, D. (2019). *Soft City: Building Density for Everyday Life*. Island Press.





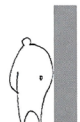




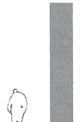


Valentijn, D. & Dienst Stedelijke Ontwikkeling. (2002). *De wederopbouw, Haagse gids voor architectuur en stedenbouw in de periode 1945-1965* [Digital]. De Nieuwe Haagsche.

Van Zweeden, J. (2019). *Retail vacancy in Dutch city centers: How can differences in retail vacancy between cities be explained?* [MA thesis]. Erasmus University Rotterdam.

Appendix

1.

The city at eye level: 12 quality criteria

Protection	<p>PROTECTION AGAINST TRAFFIC AND ACCIDENTS — FEELING SAFE</p> <ul style="list-style-type: none"> • Protection for pedestrians • Eliminating fear of traffic 	<p>PROTECTION AGAINST CRIME AND VIOLENCE — FEELING SECURE</p> <ul style="list-style-type: none"> • Lively public realm • Eyes on the street • Overlapping functions day and night • Good lighting 	<p>PROTECTION AGAINST UNPLEASANT SENSORY EXPERIENCES</p> <ul style="list-style-type: none"> • Wind • Rain/snow • Cold/heat • Pollution • Dust, noise, glare 
Comfort	<p>OPPORTUNITIES TO WALK</p> <ul style="list-style-type: none"> • Room for walking • No obstacles • Good surfaces • Accessibility for everyone • Interesting façades 	<p>OPPORTUNITIES TO STAND/STAY</p> <ul style="list-style-type: none"> • Edge effect/ attractive zones for standing/staying • Supports for standing 	<p>OPPORTUNITIES TO SIT</p> <ul style="list-style-type: none"> • Zones for sitting • Utilizing advantages: view, sun, people • Good places to sit • Benches for resting 
	<p>OPPORTUNITIES TO SEE</p> <ul style="list-style-type: none"> • Reasonable viewing distances • Unhindered sightlines • Interesting views • Lighting (when dark) 	<p>OPPORTUNITIES TO TALK AND LISTEN</p> <ul style="list-style-type: none"> • Low noise levels • Street furniture that provides "talkscapes" 	<p>OPPORTUNITIES FOR PLAY AND EXERCISE</p> <ul style="list-style-type: none"> • Invitations for creativity, physical activity, exercise and play • By day and night • In summer and winter 
Delight	<p>SCALE</p> <ul style="list-style-type: none"> • Buildings and spaces designed to human scale 	<p>OPPORTUNITIES TO ENJOY THE POSITIVE ASPECTS OF CLIMATE</p> <ul style="list-style-type: none"> • Sun/shade • Heat/coolness • Breeze 	<p>POSITIVE SENSORY EXPERIENCES</p> <ul style="list-style-type: none"> • Good design and detailing • Good materials • Fine views • Trees, plants, water 

25. Twelve Urban Quality criteria (Gehl Institute, n.d.).

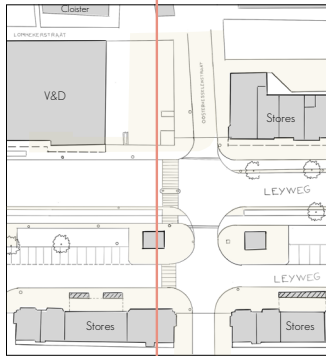
Source: Gehl, Gemzøe, Kirknæs, Søndergaard, "New City Life," The Danish Architectural Press, 2006.
Further developed: Gehl Architects — Urban Quality Consultants, 2009.

2.

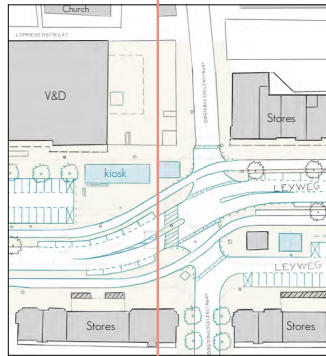
Interventions Leyweg - north square



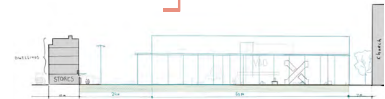
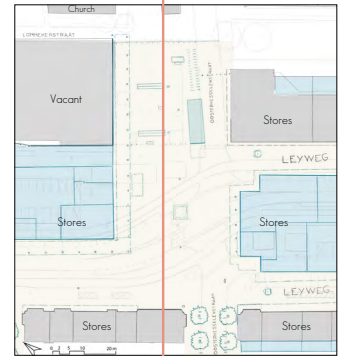
1965



1985



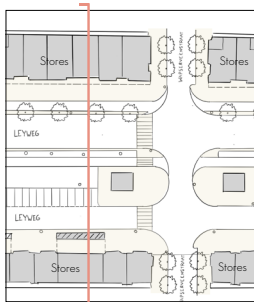
2003



Interventions Leyweg - middle streets

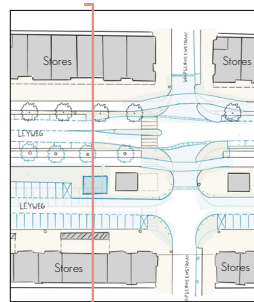


1965



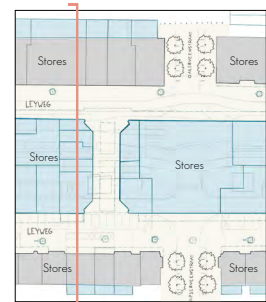
(Bakker, 1969)

1985



(Hendriksen-Valk, 1989)

2003



(Vermeij, 2006)

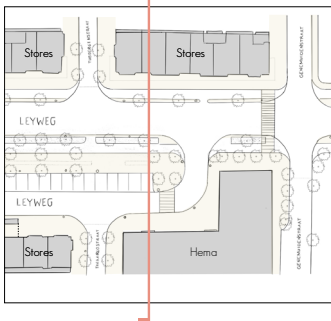
(Vermeij, 2007)

(Mortensen, 2023).

Interventions Leyweg - south square

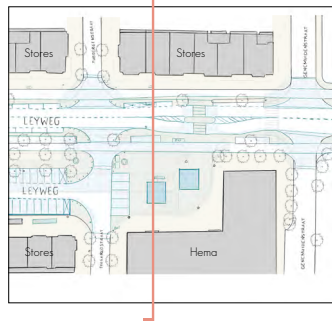


1965



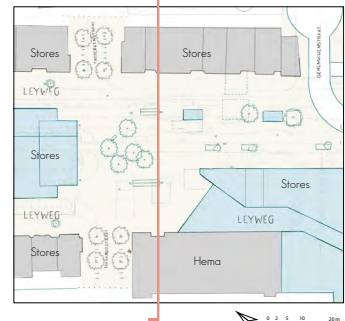
(JosPé, 1965)

1985



(Mellink, 1999)

2003



(Arnold Taal Makelaardij, 2022)

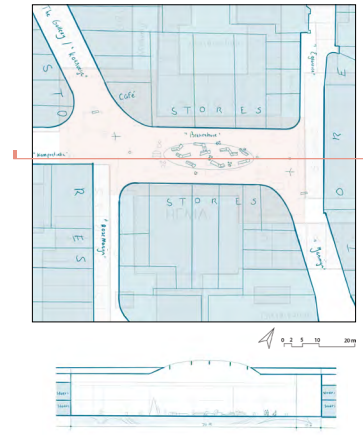
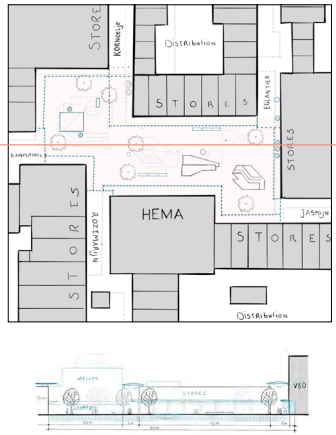
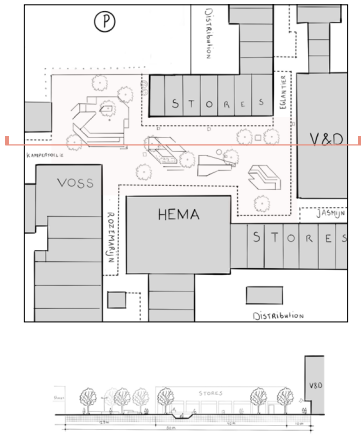
Interventions The Mall - "Berkenhove" / central square



1972

2016

2022



(JosPé, 1972)



(Aluminium Kunst Leidschendam, 2017)



(Own picture, 2022)

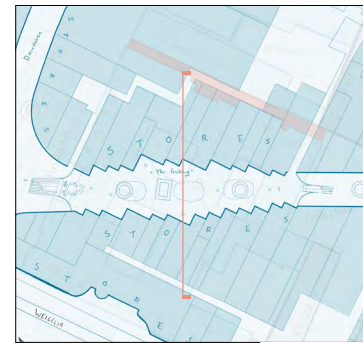
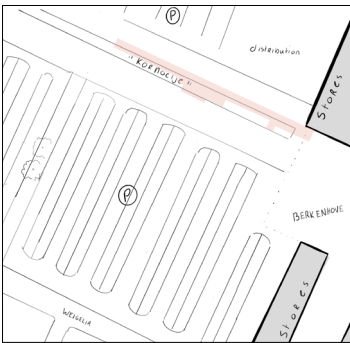
Interventions The Mall - "Kornoelje" / The Gallery



1972

2016

2022



(Gemeente Leidschendam, ca. 1979)



(Gemeente Leidschendam, ca. 2001)



(Architectenweb, 2021)

3.

People Moving Count

10 MINUTES

CATEGORY		COUNT--TALLY EVERYONE	
PEDESTRIANS	WALKING		TOTAL
	RUNNING/ JOGGING		TOTAL
	SUPPORTED (e.g., wheel- chair)		TOTAL
	CARRIED (e.g., stroller)		TOTAL
	ROLLING (e.g., skate- board)		TOTAL
PEOPLE ON BICYCLES			TOTAL

NAME _____ DATE _____ WEATHER _____
 LOCATION _____ TIME _____

MAP

ADD MAP HERE

INSTRUCTIONS: Count people moving across the indicated line for 10 minutes. Adjust the location of your line as necessary to maintain a clear sightline from end to end.

Stationary Activities Mapping

POSTURE	TALLY choose one per person	ACTIVITIES choose as many as apply				
		WAITING TRANSPORT	CONSUMING FOOD/BEV.	COMMERCIAL ACTIVITY	CULTURAL ACTIVITY	RECREATION PLAY/EXERCISE
STANDING ●						
SITTING PUBLIC □						
SITTING PRIVATE △						
SITTING COMMERCIAL ○						
SITTING INFORMAL ☒						
LYING DOWN —						
MULTIPLE/MOVEMENT ✕						

- 26. People Moving Count (Gehl Institute, n.d.)
- 27. Stationary Activities Mapping (Gehl Institute, n.d.)

4.

Recommendations safety -> design

The malls by night



Sufficient overlap between different day & night functions (but indoor has pros and cons).



Dwellings above stores (not too many floors) -> Eyes on the street.



Open shutters, increase of lit shopwindows and street lighting in human scale and proper colour scheme.

Recommendations walking -> design

The movement in pedestrian areas



Zoning of walking and sitting areas through material



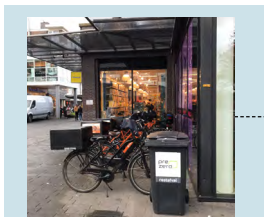
Avoidance of too many footway interruptions to create enough space for walking near the edges -> Pergola-showcases.



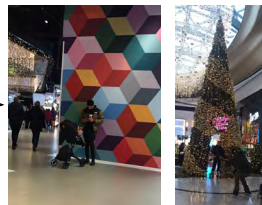
Maintaining enough space for walking while reducing distance and scale of shops.

Recommendations stay -> design

Pausing from shopping



Winkelcentrum Leyweg



The Mall of the Netherlands

Introducing more **eyecatchers and small corners** (not from glass) -> places to stop, rest and socialise.

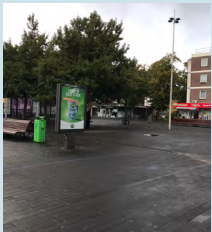


Winkelcentrum Leyweg



Leicester Square, London

Maintaining the **amount of public benches** in the streets while improving its **quality** -> material, climate, noise, views, comfort and placement.



Winkelcentrum Leyweg



Vismarkt, Groningen

Creating a better **ratio of public and commercial seating** near squares.

Challenges Leyweg

Affecting the quality of the public spaces

Recommendations

Based on interventions and the comparisons

Design principles

Base for the design concept



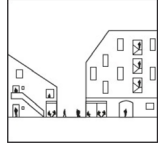
Insufficient overlap of functions



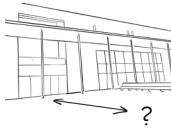
Overlap between day and night functions



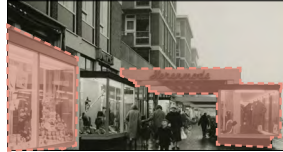
Concentrated and walkable



Vacant or dark facades without interaction the streets and squares



"Pergola showcases", lit & open shopwindows, housing upper floors



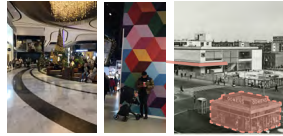
Layering of functions with an active public ground floor



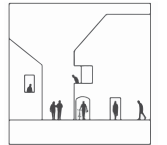
Lack of human scale: large squares without activity



Smaller elements or eyecatchers and zoning for places to walk and stop



Human scale



No clearly defined spaces for use



A hierarchy of identifiable territories with clarity of public and private



Diversity of outdoor spaces

Sense of Control and identity

