

Sociability of high-density public spaces in Dutch cities.

What factors in the design of public spaces contribute to improving social interaction and engagement with the built environment in high-density urban neighborhoods in the Netherlands?

**AR2A011 Architectural History Thesis
Master Architecture, Urbanism and Building Sciences, Technological University Delft**

Steven van Apeldoorn

5910684
17-04-2025

Word count: 6041

Abstract

This paper aims to identify the design factors that enhance social interaction in public spaces within high-density urban areas in the Netherlands. As cities become increasingly dense, the role of public spaces, particularly for social interaction, becomes more significant. This paper collects data from different sources, looks for contradictions and similarities, specifies the data for its relevance to social interaction, and tests the conclusions through observations done in the city of The Hague. Three major factors came to light, one being seating. People will sit anywhere they can to interact and observe, whether the object they are sitting on is meant for that or not. The second is the density and scale of public spaces. Higher density almost always directly increases the amount of social interaction. Those two factors are more universally accepted. The third factor is more specific to the Netherlands or places with a similar climate. The third factor is the sun. The positive influence the sun has cannot be overlooked and should be taken into account when designing a public space in the Netherlands.

Keywords

Social interaction, placemaking, public spaces, human-scale design, high-density

Introduction

An increasing number of people are moving to cities. The percentage of individuals living in urban areas has never been this high and continues to rise. This global trend is particularly evident in the Netherlands, where 74% of Dutch citizens reside in urban settings. Cities are expanding rapidly, prompting a discussion about how we manage population density. Currently, there is an ongoing debate regarding how and where to construct new housing and infrastructure, closely tied to the 'Stikstof crisis'. The central question is whether to expand outward into farmland and natural spaces or to densify existing urban neighborhoods. Both methods offer their own advantages and disadvantages.

High-density areas present an opportunity to increase the supply of housing, offices, and commercial spaces within existing urban footprints. However, the success of these areas depends on their ability to provide a pleasant and liveable environment.

This research aims to contribute to this debate by offering evidence-based guidelines for designing high-density public spaces that balance functionality and quality of life.

This goal has resulted in the following main research question:

What factors in the design of public spaces contribute to improving social interaction and engagement with the built environment in high-density urban neighborhoods in the Netherlands?

To answer this question, the research part of this paper will be divided into three chapters:

- I. The importance of good public spaces and differences between them.
- II. Compiling results from various resources about the qualities of public spaces and high-density urban areas.
- III. Testing the results through observation within Dutch case studies.

Sociability is one of many aspects a good public space can focus on. While it is the main focus of this paper, it is important to identify and consider other roles for public spaces. Chapter one will offer a condensed overview of the benefits of good public places, including sociability.

Chapter two will focus on research that has already been done on public spaces by key figures such as William H. Whyte (1980) and Jane Jacobs (1961) from the American school of thought, and figures like Jan Gehl (2010) and David Sim (2019) from the Danish school of thought.

Useful data and information will be collected and scaled down to theoretical principles and actionable design recommendations.

William H. Whyte (1980) stated that a lot can be learned through observation alone, which will be the focus of the third chapter of this paper. In this chapter, the findings from chapter two will be tested through observational research in the center of The Hague. The Hague has been selected due to its status as the most densely populated city in the Netherlands, making it an ideal example of high density. This observation will be essential to confirm or challenge the theoretical findings from chapter two, and it will either strengthen these findings or necessitate further research.

Chapter 1

1.1 Why public spaces are important

It is generally known that spending time outside has many benefits for your health, both mentally and physically. It also boosts the immune system and creates opportunities for socialization.

“Spending time outdoors can connect people to their surroundings and to each other” (Sim 2019).

Outdoor spaces provide vital, extra, useful living space in the compact and confined urban environment and are therefore important for a town or city (Sim 2019).

According to Vasilevska (2013), many theoretical studies and practical experiences have shown that there are multiple key criteria for sustainable homes and housing. High density-low rise and open spaces are the most important key factors. Another advocacy for great urban public spaces comes from William H. Whyte (1980). Through his many observations of public spaces across the US, he learned that the street is the river of life of a city.

The observations and recommendations made by William H. Whyte (1980) have led to changes in the New York zoning code and have also inspired others to continue his work and build upon it. One organization that has used and built upon the work of Whyte is PPS (Project for Public Spaces). PPS started its mission in 1978 and has since then worked on more than 3000 projects throughout 47 countries. They have found four critical roles of public spaces:

- Places build strong and diverse communities
- Places improve public health and safety
- Places drive local economies
- Places enhance the natural environment

Interesting to note that they differentiate between spaces and places. According to PPS (2018), every community has the potential and the means to create great public **spaces**, which are the foundation of great **places**. Public spaces are where the ups and downs, the victories and defeats of the common people play out. When a public space is designed to do just one thing, like moving cars or looking pretty, it fails at many other things. When public spaces are well-loved and well-used by people, they can generate a large range of extra benefits: people and communities become more connected with each other, they become more capable, people get healthier and safer, and the economies and environments improve and even flourish. That is why it is important for public spaces to be created the right way (PPS 2018).

1.2 Different types of public spaces

This research doesn't specifically focus on one type of public space, but it aims to find universal rules that can be applied to any public space in high-density areas. Despite that, it is still beneficial to identify different types of public spaces for a couple of reasons. By examining different categories of public spaces, it will be easier to spot common factors. Different categories of public spaces also make it possible to test the universality of the rules or recommendations found in Chapter Two. If a rule or recommendation is true in several types of public spaces, it can be considered universal. Instead of focusing on the uniqueness of each category, the focus will be on identifying commonalities and patterns. Doing so will allow for a holistic framework that can be applied to any type of public space. This framework will likely go beyond simple design principles and will include factors like community involvement and maintenance. Despite the broadness of this framework, the primary focus of this research and observation will be design principles and the decisions that a designer has influence over, specifically to increase social interaction.

There is a wide variety of variables that shape a public space, including density, scale, location, orientation, purpose, and design. There are also external factors that change the way a public space is used or experienced, such as climate, temperature, weather, and culture. For this research, a lot of these variables are fixed. Observations will be done in the city of The Hague, in April, on a sunny Sunday with a mild temperature. The variable in this case is that different public spaces will be observed, and therefore, the scale, orientation, and purpose will be different.

The locations that will be observed are:

- | | |
|-------------------------------|---|
| - Grote Markstraat | – shopping street |
| - Grote Markt | – a square with bars and restaurants |
| - Buitenhof | – two squares with bars, restaurants, and entertainment |
| - Hofvijver | – a lane along the parliamentary pond |
| - Lange Voorhout | – City park/lane |
| - Square at Palace Noordeinde | – market |
| - Paleistuin | – City park |

Chapter 2

The previous chapter focused on the importance of good public spaces. This chapter will answer the question of how to make good public spaces, specifically, factors that stimulate social interaction from a design point of view. Just as the design process goes from large scale to small scale, so will this research. Starting with theoretical principles, followed by more detailed action points, and small-scale details. This research will source a lot of its information from two main schools of thought and their key figures. The table below shows a clear overview of the two schools of thought, their key figures, their principles, their impact, and connections.

School of Thought	Key Figures	Principles	Impact	Connections
New York/American	Jane Jacobs	Diverse, mixed-use neighborhoods place-based, community-centered approach to urban planning	<i>The Death and Life of Great American Cities</i> (1961) became one of the most influential American texts, inspiring generations of urban planners and activists.	Urban writer and activist with no professional background in the field of urban planning. William H. Whyte was her editor at Fortune Magazine, who published her seminal article "Downtown is for People" (1958)
	William H. Whyte	Emphasis on the social life of public spaces	For years, Whyte observed the streets in the Street Life Project and published his findings in <i>The Social Life of Small Urban Spaces</i> (1980), influencing urban planning and zoning laws, emphasizing human-centric design.	Sociologist, urbanist, and writer. Mentored Fred Kent, founder of PPS, and Jane Jacobs. Whyte and Project for Public Spaces worked closely on the renovation of Bryant Park in New York City.
	Project for Public Spaces (PPS)	Placemaking Community engagement	Continuing the work started by Whyte, they transformed public spaces worldwide into vibrant community hubs.	Fred Kent, founder of PPS, was a research assistant on the Street Life Project. This organisation collects knowledge from many important figures in urbanism, but especially from Whyte and Jacobs.
Danish/Scandinavian	Jan Gehl	Live between buildings Gradual transformations	Influenced the transformation of cities like Copenhagen and Melbourne.	Urban Design Consultant and Professor of Urban Design at the School of Architecture in Copenhagen. Gehl founded Gehl Architects -- Urban Quality Consultants.
	David Sim	Soft city approach Density, livability, and human-centered design.	Offers practical tips for creating human-centered urban spaces, drawing inspiration from the concept of "hygge."	Creative director at Gehl Architects. Sim has been focusing on Masterplanning Frameworks and urban design for more than 10 years.

2.2 Theoretical principles

This chapter focuses on theoretical principles and more practical theories. The reason to first look at theoretical principles instead of practical design principles is that a public place cannot function well if the underlying factors, such as community engagement, maintenance, and ownership, are not done well. A place can be optimally designed for social interaction, look beautiful, and win architecture competitions, but that means and achieves nothing if the community is not involved during the whole process of creating a public space (PPS, 2018). For this reason, this chapter will collect theories from different sources and highlight similarities and differences between different theories, even though these theories are not the main focus of this research. These theories are too influential on the eventual success and design of a public space, not to mention them.

Social interaction

“What attracts people most, it would appear, is other people” - William H. Whyte

This quote by Whyte (1980) is the key to understanding successful public places that drive social interaction. For social interaction, you need people. The more people there are in a place, the more likely it is for social interactions to take place. The snowball effect is visible here: people attract others, which in turn attracts more people, and so on. A public space with the intention of stimulating social interaction should aim for this snowball effect by being an attractive place to be, and more importantly, by giving people many reasons to be there. PPS (2018) claims that places thrive when people have many reasons to be there. That principle has resulted in the following theory: The power of 10+ (PPS, 2018).

The power of 10+

The idea is that a city needs destinations that give its community an identity and image. Good destinations attract people, whether they are residents, tourists, or businesses.

City/Region

10+ major destinations

Destination

10+ places in each

Place

10+ things to do

One aspect that does raise questions about this theory is scalability. Whyte (1980) has said that the key variable in public spaces is scale. A good public space is proportionate to the buildings around it. “The tendency is to overscale. Condensing or concentrating a public space to a smaller size might sometimes be necessary to achieve critical mass. [...] A big city, little city, wherever you have a flow of people, you should have great spaces” (Whyte, 1980). This relates back to the idea that people attract other people. By spacing people out too much, you lose the snowball effect. Having many things to do in a smaller space will bring people physically closer to each other, which in turn makes the chance of social interaction to happen much more likely.

High density

Neither PPS (2018) nor Whyte (1980) has mentioned how tall the buildings are supposed to be, in relation to the public space, only that they should be proportional to the public space. Neither has set a limit on how tall these buildings are supposed to be. Whereas Vasilevska (2013), Sim (2019), and Gehl (2010) advocate for high-density-low-rise buildings.

Sim (2019) has developed nine criteria for livable urban density. One of those nine criteria is that the urban form should be dense, but at a human scale, meaning that the dimensions and details offer comfort and well-being to the people living in and around the buildings and the spaces between the buildings. David Sim, a partner at Gehl Architects, and Jan Gehl both argue that the first three vertical meters of experience are what connect us to the place. Sim (2019) states that buildings should not be higher than six stories – ideally four to five stories. While Gehl (2010) also advocates for human-scale buildings, he has also said the following: ‘The challenge is to build splendid cities at eye height with tall buildings rising above the beautiful lower stories.’ Gehl (2010) doesn’t rule out tall buildings as long as the lower stories are designed according to the principles of human-scale design.

The community is the expert

This theory has less to do with design itself; rather, it focuses on the community. “Tapping into the talents and ideas of the community is crucial in deciding how to improve an existing place or in building a vision for a new place. The people who live, work, play, or study in a place offer valuable insights, historical perspectives, and a unique understanding of the issues that matter most. The sooner they become involved in the process, the better”- PPS (2018)

Pacheco (2017) also advocates for the importance of community involvement. Stating that involving residents is essential to maintaining the quality of public spaces. “Involving residents ensures that the nature and use of public space will meet the community’s distinct needs. If a space does not reflect the demands and desires of the local population, it will not be used or maintained. Social participation is a central element for the construction of safer, equitable public areas.” - Pacheco (2017)

Create a place, not a design

Design magazines often award public space designs that fail to resonate with people, leading to a disconnection from spaces meant to serve their needs.

Success in creating great places depends more on effective management than design alone, requiring collaboration across multiple disciplines to work on complex challenges. Essential factors include maintenance, security, accessibility, and amenities like seating, waste bins, clear signage, restrooms, and food options.

Unfortunately, there is a lack of training in place-making within traditional architecture and design programs, which typically focus on design and construction rather than community engagement. Professionals in design should redefine their roles to become valuable resources for communities, according to PPS (2018). Something the architecture department of technological universities in the Netherlands could think about as well.

2.3 Practical points of action

This chapter reduces the scale, moving on from theoretical principles to a combination of practical principles and points of action. One of the main points of the previous chapter is that the design of a public place is just a small part of the determination of its success. However, that doesn't mean that the way a public place is designed doesn't matter. If designed badly, a public space is way more likely to fail as a place. For that reason, this chapter will highlight the most effective design principles that should be considered when designing a public space. The seven recommendations of Whyte (1980) will be used as a starting point.

Sittable space

People naturally tend to sit in areas with available seating, intentionally or otherwise. Incorporating ledges and steps can enhance seating options, ideally accommodating two backsides deep. This not only increases choice but also positively influences perceptions of crowding. Additionally, planters can serve as effective seating solutions, provided they are at an appropriate height (Whyte, 1980).

Providing adequate seating options noticeably improves a place's use. Sun and wind shift throughout the day, therefore, it is recommended to use movable chairs.

The quality of seating can be just as important as the quantity, therefore, it is important to make sitting comfortable and convenient (PPS, 2018).

Movable chairs are great because they provide people with a choice of where they want to sit. By providing choices, people feel like they are in charge of decision-making.

Fixed individual seats don't work very well (Whyte, 1980).

Whyte's (1980) suggestion for the minimum amount of seating is one linear foot for every 30 square feet/ 30 cm for every 273 square meters.

Street

The most important thing about a place is its relation to the street. Therefore, it is advised to keep the public space at street level. Raising or sinking the public space will require extra effort to make sure the connection with the street is not lost, unless isolation is the goal.

"A great space draws its vitality, its life, and its vigor from the street. As a matter of fact, it virtually invites it in."- Whyte (1980)

The entrance should be designed to be inviting and open, with clear views of the interior of the space and amenities (PPS 2018)

Sun

Direct sun is not necessarily preferable, provided there is sufficient daylight. Sunlight only makes a difference if the choice is sitting comfortably or not sitting at all.

What hurts most is not the lack of sun, but the lack of light (Whyte 1980)

The second part of Whyte's (1980) statement is especially true for cold temperatures. The warmth of the sun can be a deciding factor for people wanting to socialize outside. A designer will use the sun's full potential in the design of a public space.

Food

Selling food, either through a pushcart vendor, food truck, food stall, kiosk, or other ways, creates a very sociable setting. People who are eating usually attract more people (Whyte 1980).

“If you want to seed a place with activity, put out food” - William H. Whyte

Interestingly, food is barely even mentioned by Sim (2019) and Gehl (2010), even though sharing a meal is one of the most social things people do. A social design will consider the importance of food by placing extra seating or other amenities around places that sell food.

Water

Waterworks such as water walls, waterfalls, fountains, mist stations, and reflective pools are great amenities in the city. A designer should not only pay attention to the aesthetic qualities of water features, but also the sound of water, and interaction with water is also an important factor to consider. The soothing sound of water also provides a calming ambiance and enjoyable background noise. Interaction with water enhances the overall experience. Water should always be accessible to people, they shouldn't be kept away from it or prohibited from touching it (Whyte 1980).

Trees

Trees are very beneficial for a city, they provide shade, microclimate, transpiration, cooling, and beauty (Whyte 1980).

Sim's (2019) ninth criterion advocates for greater biodiversity, claiming that there are many benefits of biodiversity, both to people and to the planet. The benefits mentioned are: acoustic effect, mitigating pollution, visual screening, increasing privacy, mitigating wind, protection against strong summer sun, and mitigating heat island effect.

Vegetation enhances cities by promoting outdoor activities. As urban areas grow denser, access to green spaces becomes vital for reducing stress and improving well-being (Pacheco 2017).

Triangulation

“that characteristic of a public space that can bring people together, strangers. It is usually an external stimulus of some kind. It could be a physical feature or an event.

It doesn't make much difference whether an act is good or corny; it will draw a crowd in less than a minute. Strangers will act as if they were not. What the performer does best is provide a connection between them.” – Whyte (1980)

Triangulation is best described as a combination of multiple factors working together to create a place that can bring people together. A great way to achieve this is by adding things to do in a place, relating to the power of 10+. People are naturally drawn to places where things are happening (PPS, 2018)

Chapter 3: Observation

In this chapter, observations will be made in the centre of The Hague to improve the legitimacy of the results from the previous chapter and to add new insights. The goal is to check whether the points of action from chapter 2 are applicable in the Netherlands, specifically in the city of The Hague, and to observe where and under what circumstances social interaction takes place. Important to note is that the observations were done in the most optimal of circumstances to get the best results, namely on a sunny Sunday afternoon. However, one day is not sufficient to 100% confirm or deny the conclusions of Chapter 2. Observations during a different season might result in different observations and different conclusions. That being the case, the observations were made as objectively as possible and are, for the most part, universal.

The order of the observations is the same as in the previous chapter, starting with sittable space.

Sittable space

Moveable chairs were highly recommended by Whyte (1980) and PPS (2018), which made it something specific to look out for during the observations. Despite their importance in theoretical research, they were nowhere to be found during the observations, except chairs that belonged to a private establishment like a restaurant or a bar, as seen in Figures 19-22.

What became very clear is that people will sit anywhere they possibly can, even if that space or object is not designed for seating (figures 1-8). A designer should consider how their design can be used beyond its original function. It is safe to assume that people will try to lean against it or sit on it; therefore, a designer should make this safe and comfortable to do so, unless people are really not supposed to, which also requires certain design choices. A clear example is seen in Figure 1. This planter is too high and thin to comfortably sit on, but that doesn't stop people from trying. Making that edge just a little bit lower and wider could have made it a greater spot for socialisation.

A great example of a design that takes the human desire to lean and sit into account is seen in Figure 3. Pointed directly towards the busy street with lots of activity, this is a prime spot to watch other humans, and the designer knew this. "Make the most of ledges, especially the front row." – Whyte (1980)

The lack of movable chairs was, for the most part, made up for by plenty of benches or ledges to sit on. A great example is seen in Figure 6. There are multiple seating options available, offering two main choices: one can either sit on the benches and observe the people walking past, and those seated on the edge, or choose to sit on the edge, enjoying views of the pond, the parliamentary building, and the city's skyline.

Street

A public place that wants to increase social interaction must have a good connection with the street. The street itself can also be considered a public place. This is the case with Grote Marktstraat and Lange Vijverberg (hofvijver). Grote Marktstraat is a shopping street where only walking and cycling are allowed, no cars or public transport. This makes walking there feel safe, except that the bicycle path is not clearly marked, causing people to walk on the bicycle path. This creates unsafe situations, which ideally should be prevented. Lange Vijverberg has a different approach: all forms of transportation are separated from each other. This makes walking there safer and relaxing. This way, people can focus on their conversation instead of worrying about traffic.

Sun

At the time of the observations, the temperature outside was around 12 degrees Celsius, which means that it can get chilly in the shade and pleasant in the sun. The effect the sun had on sitting choices was extremely visible, see Figures 19-22. Places where the sun was shining were packed with people, while places on the same street or square that were in the shadow were almost empty. Whyte (1980) said that direct sunlight is only important if the choice is sitting or not sitting at all, which, during this observation, seems to be true. A designer can use this knowledge to orient or place certain things in the sun or shade. Both Sim (2019) and Gehl (2010) made the same conclusion and made the recommendation to make the sidewalk on the sunny side of the street wider than the sidewalk on the shady side.

Food

The importance of food cannot be overstated. In half of all images, there are people eating food or drinking something. When people buy food, they like to have a place to eat it too. Therefore, if you want to keep people in a place, interacting with each other, make sure there is enough food availability. Frames 23-26 give examples of small but effective ways to sell food to people.

Water

In none of the public places where observations were done was it possible to interact with water. The only place where water could be enjoyed by looking at it was at the Hofvijver, see Figures 6 and 30. The pond is too low for people to put their feet in the water. Making the edge lower, or providing a lower platform closer to the water, would have given people the opportunity to interact with the water.

Trees

Trees and plants can be a great way to introduce spontaneous interaction. See, for example, the woman smelling the flowers in Figure 29. A great example of the way humans care and are interested in nature. A small tree in a planter can give people the choice to sit on the sunny side or in the shady side, like the talking adults and napping toddler in Figure 1. "People don't often stop to talk in the middle of a large space. They like defined places: steps, edges, flagpoles." – Whyte (1980). During observations, trees were also a great place to define a space, as seen in Figure 8, or be something to lean against, as seen in Figure 28.

Other

Some factors don't fit into any of the above categories but still play an important role in the design of public spaces.

It's not for nothing that a bench is placed on top of a hill overlooking the view. The same principle can be applied to cities. As a designer, be aware of where nice views are in the city or street, whether it looks out on nature or the city itself. A nice view is a great opportunity to create places for social interaction, as seen in Figure 30.

Animals can also spark interaction between people. Whether it is a bird in a park or a family of ducks walking by, as seen in Figure 31. To increase interaction, include space for animals, either through wildflowers for insects, trees for birds, or ponds for ducks.

Playgrounds for kids generate a lot of interaction, not just between the kids, but also between the parents watching their kids. "It is often assumed that children play in the street because they lack playground space. But many children play in the street because they like to."

- William H. Whyte

Triangulation

The best observed example of triangulation was found at the market in front of the palace Noordeinde. The power of 10+ was very well visible in this place. There were many different things to do and see, such as listening to a street performer, buying ice cream, buying coffee, buying food, looking at the merchandise at the stalls, watching other people, and enjoying a glass of wine in the shade of a tree (Figure 23-26). Having so many different things to do in such a small space is a great way to increase social interaction between people. The small scale and high density of the location force people to be physically close to each other, the market stalls and food vendors force interaction, and the musician gives people something to look at and talk about. This is what triangulation means. All these individual factors are placed close together and therefore increase in value. Karssenbergh and Laven (2017) relate the entrepreneurial spirit of the Dutch people to their market squares. Saying that great squares were built in countries like Italy and Spain to honour and glorify the nobility and the Church, in contrast to the historic squares in the Netherlands, which reflect the Dutch entrepreneurial spirit and were mostly markets.

Chapter 4: Conclusion

This paper started with the question of what factors in the design of public spaces contribute to improving social interaction and engagement with the built environment in high-density urban neighborhoods in the Netherlands? During the research, it became clear that the impact design has on the quality of the public space is lower than initially thought. Factors such as community involvement, management, maintenance, and climate are just as important, if not more so, to the success of a public space. With that in mind, there are a few things that a designer can do to improve sociability in a public space through thoughtful design principles. A whole list of design principles is mentioned in the previous chapter, but there are a few key things to know.

Don't underestimate the positive impact of the sun, and vice versa, the negative impact of rain. The Dutch climate, in particular, sees a lot of rain and generally not much sunshine. Days when the sun is abundant are celebrated by people going outside to enjoy the sun. A designer can use this as an advantage by making the sidewalk on the sunny side of the street larger. This way, more functions can be placed in the sun and more people will enjoy being in that place. Place benches and chairs in the sun so that people have a comfortable place to sit. Also, provide shady places, preferably under a tree, to give people options. You reach a wider range of people the more options you give them.

Make seating comfortable and abundant. That doesn't mean that many benches must be placed all over the public space. A good design will incorporate seating on objects that aren't primarily made for seating. Planters, ledges, railings, art objects, and statues can be designed in such a way that people can comfortably use them to sit on or lean against. Not doing so will not prevent people from trying anyway. A lot of interaction happens in places where people can sit; a good designer knows this and implements this in the design.

One plus one equals three. This principle, also called 'triangulation', is the most significant factor in increasing social interaction. Having many things to do in close proximity to each other increases the value of each individual thing. A chair in the middle of an empty field or a market stall in a big empty square won't be used or visited nearly as much as when you put them close together. People love having a place to sit while they eat, and while doing so, watch something interesting or simply look at people walking past. High density works in favor of this principle; in fact, high density is this principle. Don't overscale public spaces, or leave them empty. Place many things close to each other to increase social interaction. The market square in front of the palace Noordeinde was observed as the perfect example of this principle. It combines the Dutch entrepreneurial spirit with great urban design principles, as mentioned above, in a small place with high density, and results in one of the most socially interactive public spaces in the city. It drives the local economy, strengthens the local community, increases health through high-quality foods and sources it produces locally, improving the natural environment, all things a good public space should do, as mentioned in Chapter One.

Social interaction and high density go hand in hand. A good public place with thoughtful design invites people in to participate and socialize. Like Whyte (1980) has said: 'You come to these places not to escape from the city, but to partake in it.'

Chapter 5: Academic reflection

This research started with the misconception that design is the most influential factor determining the success of a public space. Although a good or bad design certainly does have influence, it is just one factor of many to take into consideration. Especially while reading *How to Turn a Place Around: A Placemaking Handbook (2018)* by Project for Public Spaces, it became increasingly clearer that there are underlying fundamentals that determine the success of a public space. The goal was to look for factors that increase social interactions in high-density urban areas, and since a successful public space attracts more people and therefore increases social interactions, the research shifted slightly away from just design principles and focused more on the underlying factors. It felt irresponsible to only look at the influence of design principles and knowingly leave out what matters more: the bigger, theoretical principles. This research combined theoretical principles from multiple sources and based the practical design principles on those theoretical principles, while focusing on social interaction in high-density urban areas. Even though that was not the initial idea for this research, it does provide a more complete answer to the main research question. It is not a complete understanding of all relevant theoretical principles for public spaces, nor is it a complete design handbook for designers to use. It is, however, a great combination of the two, with the focus on social interaction, tested through observation in a Dutch city.

There is one disclaimer, which is that a lot more observation is needed to more accurately confirm or disprove the results of this research. Whyte took 16 years and a whole research team for his research, and Project for Public Spaces has experience in over 3000 projects throughout the world. It requires a lot more research in more locations, at different times of year, on different days, and in different weather to determine which principles are universal and which are specific. This research does provide a solid foundation for further research and observation.

Bibliography

Ljiljana Vasilevska. (2013). *Towards more User-Friendly Public Open Space in Low-rise High Density Housing Areas*.

Madden, K. (2018). *How to turn a place around : a placemaking handbook*. Project for Public Spaces.

Sim, D. (2019). *Soft City: Building Density for Everyday Life* (1e ed.). Island Press.

Whyte, W. H. (1980). *The Social Life of Small Urban Spaces*

Jacobs, J. (1961). *The Death and Life of Great American Cities*

Karimimoshaver, M. , sajjadzadeh, H. and troosheh, H. (2020). The relationship between height of tall buildings and mental health of citizens (Case study: Saeediyeh complex of Hamadan). *Motaleate Shahri*, 9(33), 51-62. doi: 10.34785/J011.2019.303

Maestripieri, D. (2012). *Are There Universals in Human Behavior? Yes*. Psychology Today.
<https://www.psychologytoday.com/us/blog/games-primates-play/201211/are-there-universals-in-human-behavior-yes>

Gehl, J. (2010). *Cities for people*. Island Press.

Pacheco, P. (2017, June 9). *Public Spaces: 10 Principles for Connecting People and the Streets* | TheCityFix. <https://thecityfix.com/blog/public-spaces-10-principles-for-connecting-people-and-the-streets-priscila-pacheco/>

Jeroen Laven, Der, V., Siënna Veelders, & Al, E. (2017). *The city at eye level in the Netherlands*. Uitgeverij Blauwdruk.

Photographic additions:

Added to this document are photos taken during the observation. These photos were taken by the author of this paper, and were taken on Sunday, April 6th, in the afternoon, in the center of The Hague.



Figure 1 (Apeldoorn, S. 2025)



Figure 2 (Apeldoorn, S. 2025)



Figure 3 (Apeldoorn, S. 2025)



Figure 4 (Apeldoorn, S. 2025)



Figure 5 (Apeldoorn, S. 2025)

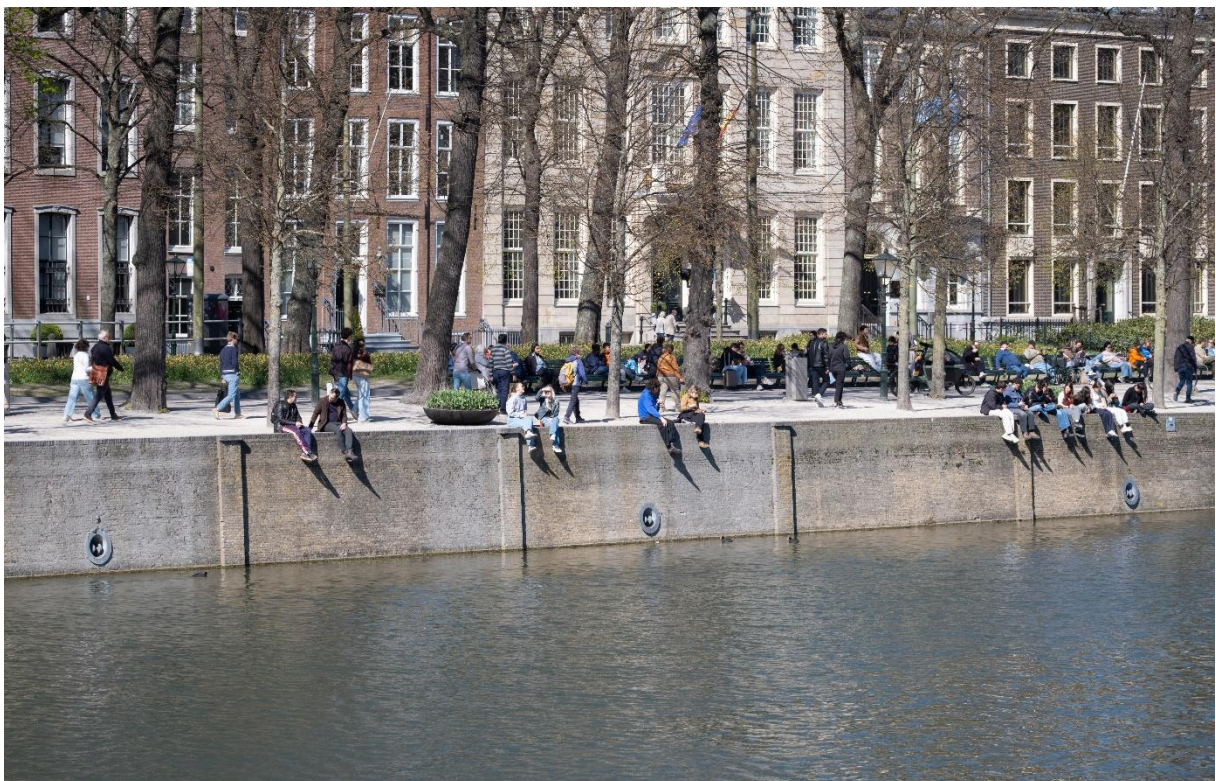


Figure 6 (Apeldoorn, S. 2025)



Figure 7 (Apeldoorn, S. 2025)



Figure 8 (Apeldoorn, S. 2025)



Figure 9 (Apeldoorn, S. 2025)



Figure 10 (Apeldoorn, S. 2025)

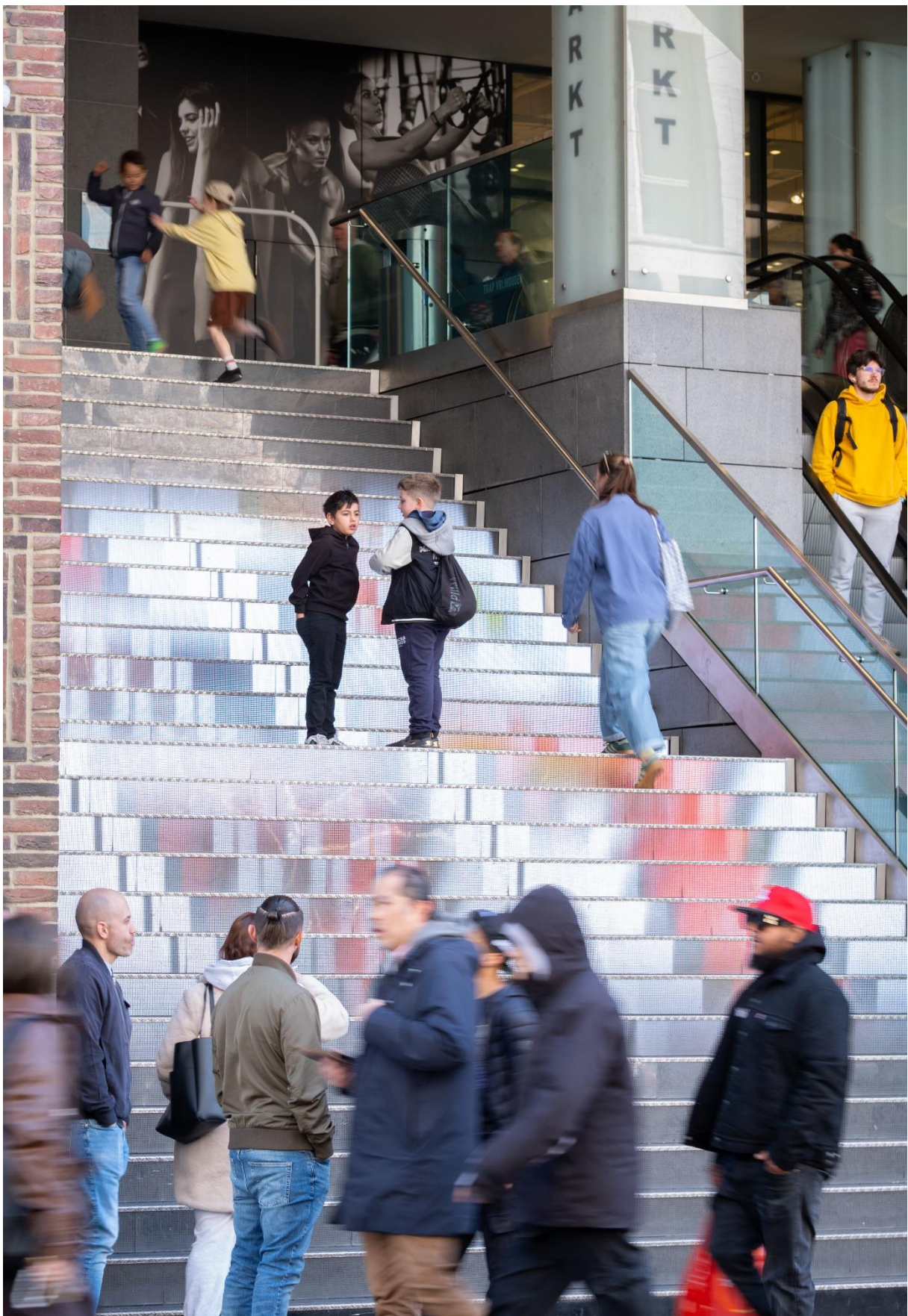


Figure 11 (Apeldoorn, S. 2025)



Figure 12 (Apeldoorn, S. 2025)



Figure 13 (Apeldoorn, S. 2025)



Figure 14 (Apeldoorn, S. 2025)



Figure 15 (Apeldoorn, S. 2025)



Figure 16 (Apeldoorn, S. 2025)



Figure 17 (Apeldoorn, S. 2025)



Figure 18 (Apeldoorn, S. 2025)



Figure 19 (Apeldoorn, S. 2025)



Figure 20 (Apeldoorn, S. 2025)



Figure 21 (Apeldoorn, S. 2025)



Figure 22 (Apeldoorn, S. 2025)



Figure 23 (Apeldoorn, S. 2025)



Figure 24 (Apeldoorn, S. 2025)



Figure 25 (Apeldoorn, S. 2025)



Figure 26 (Apeldoorn, S. 2025)



Figure 27 (Apeldoorn, S. 2025)



Figure 28 (Apeldoorn, S. 2025)



Figure 29 (Apeldoorn, S. 2025)



Figure 30 (Apeldoorn, S. 2025)



Figure 31 (Apeldoorn, S. 2025)



Figure 32 (Apeldoorn, S. 2025)



Figure 33 (Apeldoorn, S. 2025)



Figure 34 (Apeldoorn, S. 2025)