IN-BETWEEN

The Crucial Role of Public Spaces in Exchange and Interaction

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ABSTRACT

Pendrecht is characterized by a great richness in cultural diversity and local initiatives, but these different worlds are spatially separated from one another and invisible for the passerby. They are not articulated in the public domain but instead remain confined to private domains. Left without activity or liveliness, the streets and squares are degraded to meaningless transition zones. This anonymity stands in the way of social cohesion and any sense of belonging or attachment to the neighbourhood. In order to break this downward spiral, an impulse into the public domain is needed that facilitates social and cultural exchange.

Key words: public space, interaction, exchange, social cohesion, domains, liminal spaces

INTRODUCTION

The average urban individual, let's call her Mia, dropped by the supermarket on her way home from work. Ducked away in her jacket, she now hurries along as the darkness of the evening closes in quickly. Every so often she quickly glances around to check for anything suspicious about the few other pedestrians passing by. To her, the lonely square and streets are just transitional spaces. Parts of no-man's-land that are not meant for dwelling, just for movement. And if it is up to her, the quicker she can pass through, the better. As a modern nomad she daily traverses these spaces, crossing the void to where the city once again becomes meaningful.

Though many paths cross in the public domain, this does not necessarily give rise to an attractive dynamic of contact and exchange. Especially in neighbourhoods with little social cohesion among its residents, anonymity and unsafety discourages free use of public space. As the front cover illustrates[1], the city turns into an archipelago of enclaves, where each individual constructs their own city from these geographically dispersed enclaves while avoiding the unpredictable 'in-between' as much as possible. However, when designed and programmed carefully, public space has a great potential for bridging the gap between different backgrounds and ideas. As a linking element where cultural and social exchange can take place, a successful public space is a cornerstone for safe, resilient, and inclusive cities.

PROBLEM STATEMENT

As the feeling of community dwindles in many urban residential areas, individuals or groups live increasingly segregated lives from each other. Each draws their own path through space and time, causing the interaction and social exchange to fade and eventually disappear. (Hajer en Reijndorp, 2001, pp. 84) This development is amplified in modernistic neighbourhoods such as Pendrecht, where functions as housing, work, recreation, and shopping are separated from each other. Being dislocated from a lively exchange with and between these functions, the public space degrades to a meaningless transition zone. It has lost its linking function and does not have the capacity to facilitate exchange and interaction between different users. Instead, the sense of anonymity, unsafety, and a fear of the 'unknown other' increases in the neighbourhood.

This paper investigates how the public domain can facilitate exchange and interaction in order to increase the sense of belonging to the neighbourhood and each other. The topic will be examined through the case of Pendrecht, a neighbourhood in the south of Rotterdam. This leads to the following research question: How can the public space of Pendrecht facilitate exchange and interaction?

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[1] Rem Koolhaas' interpretation of the archipelago city as *The City of the Captive Globe* (1972)

DEFINITIONS

In the plethora of terms describing public and private area, as well as the many differentiations in between, it is necessary to start with a clear definition of terms. The American sociologist Lyn Lofland distinguishes three different social 'domains': the public, private, and the parochial domain in between. Where in the public domain everyone is both an author and a spectator of events, the parochial is more limited in accessibility. Only those who belong to the community are granted access. This may be done physically by fences and locks, or instinctively by architectural principles that make a non-resident feel like he/she is intruding. The private domain is a space where the owner or resident has full authority over who enters and how it is used.

These domains are not linked to specific location or surroundings. (Van De Wal et al, 2015) What domain, or level of publicity occurs where, is dependent on the way people interact and use the space. For instance, a hallway in an apartment building might very well be a public and neutral place. However, if a group of friends gathers there one evening, they 'claim' the space and by their presence it turns into a parochial realm. All of a sudden, anyone who enters and does not belong to this 'dominant' group, feels like an intruder. Even though the space is technically public and accessible for everyone, through the way people have appropriated it, it is perceived as a parochial or even private domain. Domains are not linked to a specific surrounding; they are the result of the interaction between people.

This leads us to privacy scripts (Van De Wal et al, 2015). In contrast to domains, privacy scripts are connected to spaces. They are codes that regulate the expected level of social interaction in a space, creating different privacy zones. Where domains are dependent on the interaction between people to define the level of privacy, privacy zones are recognisable in a space even if there is no one to relate one's behaviour to. When entering an empty lounge of a hotel, a visitor can still 'read' the level of privacy in the space and adapt his actions accordingly. Privacy zones have their value in transitioning from one environment to another. Continuing with the example of the hotel, the gradations between the sidewalk, hotel nameplate, the front steps, first doors, doormat, second doors and then finally the lobby of the hotel, condition the person entering to adapt his/her social behaviour to the new surroundings. All these small spatial transitions implicitly script people's behaviour to conform the expected social interaction.

The term in-between will be used in this paper to describe those zones that were designed to be parochial, but over time have lost their 'scripting'. It has become unclear what their use is, who may appropriate the space, and what level of privacy is expected. These formerly communal spaces have lost their social function and are, in their current state, of little value to residents. N.T. Byrne first introduced the concept of 'time in-between' in his his book 'Sociotemporal Considerations of Everyday Life' (1978), describing it as "the time during which people are on their way to live the rest of their lives". (Blokland & Nast, 2014, p. 1143) Blokland and Nast linked this concept with public familiarity and comfort zones, showing how casual encounters and superficial acquaintances open up a different way of thinking about social capital and its spatial dimensions. Though superficial and fluid, the public familiarity in this 'in-between time' creates "a comfort zone that allows people to feel they belong, even though they may have no local friends or family, never talk to their direct neighbours, and not even like the place where they live." (Blokland & Nast, 2014, p. 1155) This supports the assumption that the inconspicuous in-between space actually has a key function in the development of belonging and community building.

METHOD

In this paper, the different spaces in Pendrecht and their dynamics will be examined and measured against a theoretical framework in order find interventions that may benefit the social cohesion of the neighbourhood. The first section addresses the social and urban development of Pendrecht, and how this responds to the feeling of belonging and the appropriation of space. Continuing on this, the next section deals with the different resident perspectives and experiences of Pendrecht compared to the principles of successful public space. The paper will conclude by discussing what design interventions could create more overlap and exchange between residents and add socio-cultural value to the public space of Pendrecht.

The theoretical framework will be researched by a literature review. To understand how these principles relate to Pendrecht, a combination of site visits, street interviews, in-depth interviews, and workshops with residents are completed.

SITE CONTEXT

In order to understand the relevance of in-between spaces and their influence on the social cohesion between residents, this paper will take the Rotterdam neighbourhood of Pendrecht as a case study.

Figure 1, position op Pendrecht in relation to the urban cores of Rotterdam. (source: own work)

Pendrecht was designed and built shortly after World War II, in a period named the 'Wederopbouw'. During this period, new plans for rebuilding the ports, reviving the industry, and reducing the housing shortage were developed at a fast pace. Among these housing projects was Pendrecht, a large-scale development in Rotterdam Zuid, designed by the German-Dutch urbanist Lotte Stam-Beese. This housing development was meant to be different than the pre-war neighbourhoods and create a new quality of living for the working-class. (OPEN Rotterdam, 2016) Though the apartments themselves were modest, they all featured a bathroom with shower (which was a remarkable luxury at the time), large windows, and several bedrooms. (OPEN Rotterdam, 2016) With this abundance of space, air, and light, Stam-Beese sought to create a high standard of living for the middle-class household. Following the Modernist principles of 'het Nieuwe Bouwen', she created a systematic grid in which block units were organised around grassy lots. (Oosterhof, 2018, pp. 177) Within this functional modernist form, she wanted to design a coherent spatial and social whole.
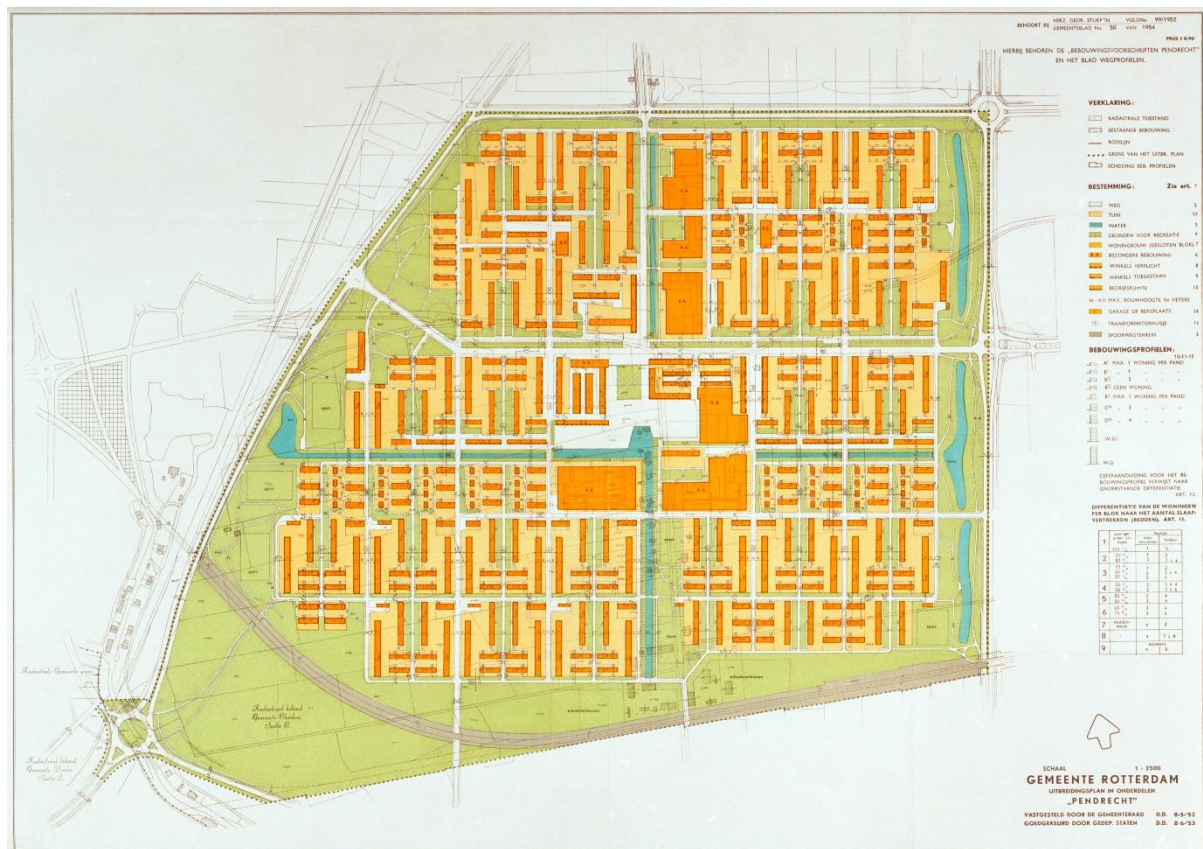

Figure 2, Plan for Expansion of Pendrecht, 1952-1954. Source: Stadsarchief Gemeente Rotterdam

NEIGHBOURHOOD UNITS

The housing grid was based on the idea of a 'wooneenheid' or 'neighbourhood unit'. These units comprised of about 90 residences for various household types (Oosterhof, 2018, pp.181) clustered around a central garden plot. Lotte Stam-Beese designed every neighbourhood unit with two three- or four-story apartment blocks for small families, two two-story low-rise blocks for large families and a strip of housing for "old folks,". The higher building blocks are positioned in north-south direction, while the low-rise stand in an east-west direction. Because the buildings are never placed in exactly the same line, the view is determined by the vistas to the communal green areas and other buildings.
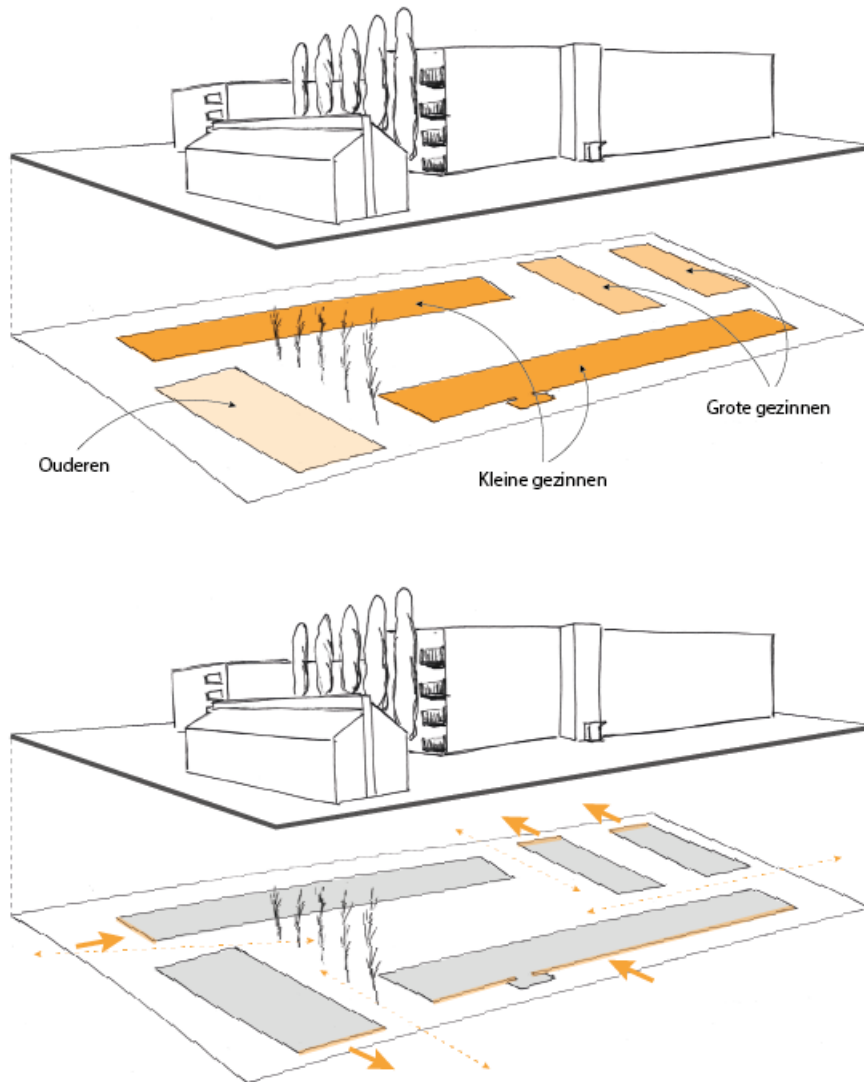
Figure 3, Analysis of the neighbourhood unit. Top: mix of household types. Bottom: shifted façade lines for sightlines and the connection with the surrounding neighbourhood units.

These green spaces were a focal point in the design of Pendrecht. According to Stam-Beese, green space should be accessible for everyone, even for those who lived in a small apartment on the top floor. This led to the spacious arrangement of building blocks, with ample room for collective greenery and several broad waterways lined with trees. These trees, which were originally all Italian Poplars, were intended to amplify the structure and harmony between the living units. Stam-Beese developed the green structure together with Wim Boer, including the communal gardens between the housing blocks. The greenery was also used to soften the separation between the residential blocks and the public street. Pendrecht was designed to be one continuous space, where there was as little separation as possible between private, parochial, and public space. (Zweerink, 2005, pp. 157)

By thus diversifying the households, limiting them to a scale in which it would be possible to tell neighbours from strangers, and including a central green space for interaction, Lotte Stam-Beese intended to create lively communities.

SOCIO-SPATIAL DEVELOPMENT OF PENDRECHT

In spite of the high ideals in designing Pendrecht, after about 40 years of success the neighbourhood's popularity lessened. This peaked after 1975, when more suburbs were built to the east of Rotterdam. As the car became more common, these newer houses and cleaner surroundings became more inviting. Especially young families moved away towards these suburbs, further away from the smog and the industry. Their places were taken by immigrant workers, who did not mind the hard and badly paid work in the ports.

This change of demography put pressure on the design of Pendrecht. Due to the small size of the apartments and the cheap rents, the area attracted mainly youngsters and unmarried people instead of the families that had been the focus of the original design. The neighbourhood which had been designed for the 'ideal' size of about 6000 houses, saw a rapid decline in population. Besides a decrease in social activity and involvement, this decrease led to the closure of many facilities and shops. Instead of the lively and thriving community, with all daily and cultural facilities around the corner, Pendrecht became commuter housing where the residents spent most of their time outside the neighbourhood.

The combination of these developments also had their effect on the social dynamics of Pendrecht. As the first-generation residents got older and the newcomers showed little interest in the community, the social control of the parochial spaces died away. The communal gardens fell in unuse and degraded to anonymous voids in the urban fabric. Annoyances between neighbours, littering and a feeling of unsafety resulted. Especially among the older residents this combined with the feeling of alienation and of fear. The situation in Pendrecht experienced a crisis point in 2009, when the Minister of Housing referred to Pendrecht as the second worst neighbourhood in the Netherlands. The stigmatization was firmly embedded, a self-fulfilling prophesy.
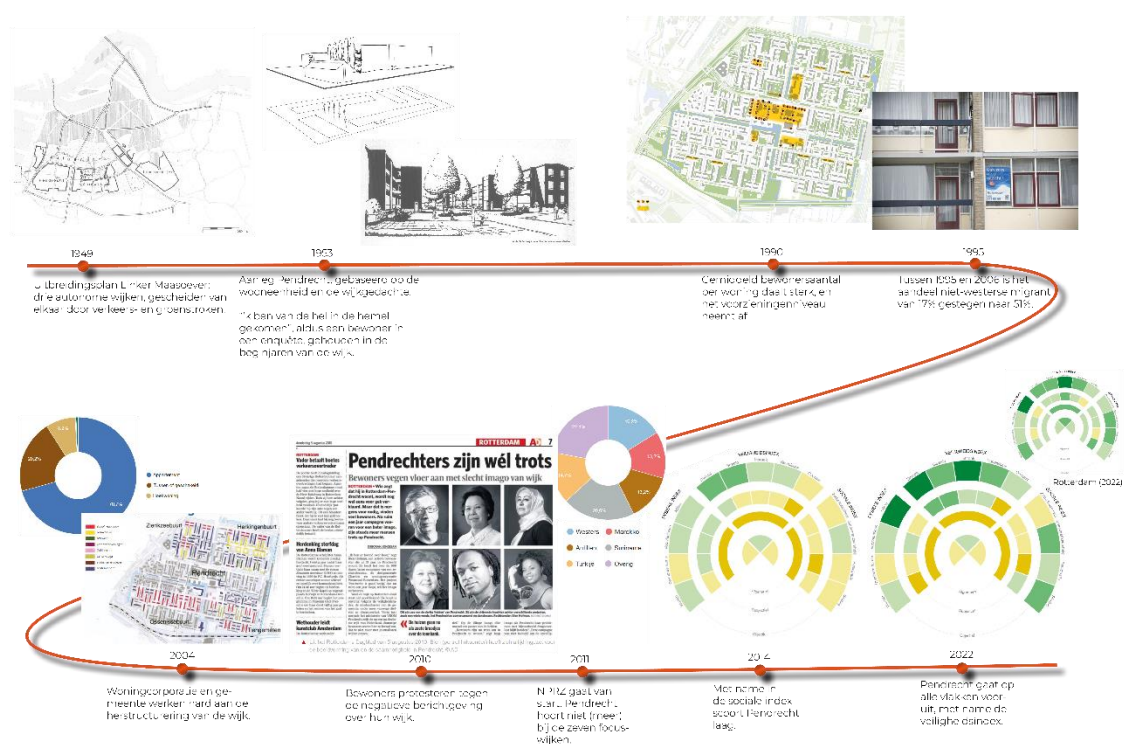

Figure 4, Timeline impression of the development of Pendrecht.

The bad publicity that Pendrecht received, unexpectedly gave rise to a common bond between residents. Together with the municipality, they openly spoke up for themselves and their neighbourhood with the 2009 campaign '*Pendrecht is goed bezig!*'. This was a direct response to their placement as the second worst neighbourhood in the Netherlands. (Boom, 2011) Contrary to the national press, the campaign highlighted all the events and initiatives that were improving Pendrecht, such as the organisation Vitaal Pendrecht, and Pendrecht Universiteit. Both of these institutions were citizen initiatives.

Simultaneously, a large-scale restructuring of the neighbourhood was taking place. Many of the original building blocks were torn down and replaced by single family homes. Extra effort was made to break the negative stigma and attract higher incomes to the neighbourhood. Though the newly built houses were a welcome replacement for the dilapidated and outdated blocks of the original design, the restructuring fragmented basic structure of Pendrecht. Where the clear ensembles of Lotte Stam-Beese had once created unity and structure, the neighbourhood has now become a patchwork of various inward-focussed pieces.

Figure 5, patchwork typology of Pendrecht. Source: own work (2023)

THE FEELING OF BELONGING

Before a community can form and take control of their space, residents must experience an initial feeling of belonging and connection to their neighbourhood. This belonging is what sparks the motivation to become involved. Without this vital step, it is hardly possible for a resilient community to grow. This following section will question the difference between the feeling of belonging in the public domain and the parochial domain. Also, it will link the concept of public familiarity to that of belonging, and the role which in-between spaces play in this dynamic.

BELONGING IN THE PUBLIC AND PAROCHIAL SPACE

The great quality of public space is often considered that everyone is both an author and a spectator. As Peter Goheen, social geographer at Queens, wrote: "Citizens create meaningful public space by expressing their attitudes, asserting their claims, and using it for their own purposes." (Goheen 1998, pp. 479) It is a non-exclusive space, where everyone is welcome to contribute to the social dynamic. In theory everyone belongs in the public domain because it does not belong to anyone: belonging through a sense of not-not belonging. In this view, a good public realm should be as neutral as possible, so as not to associate with any group that might become dominant. A white canvas, ready to be filled by an infinite multitude of shapes in various colour and size. Rem Koolhaas goes as far as to describe the city as "an archipelago of architectural islands floating in a post-architectural landscape of erasure where what was once city is now a highly charged nothingness." (OMA, 1995, retrieved from Schrijver, 2006, pp. 20) Stated differently, Koolhaas saw the public space between privatized buildings as a void; lifeless, empty, and therefore dangerous. He did not see the neutrality of public space as a benefit at all, but rather as a threat.

However, this does not seem to match the reality often seen in public spaces. The paradox is that the 'public' space which many people perceive as pleasant, is often dominated by a fairly homogenous group. (Hajer and Reijndorp, 2006, pp.88) Take for instance the Haagse Markt or the Vondelpark on a sunny Sunday afternoon. These places are perceived as public spaces with all the hustle and bustle which people love about urban life, full of chances to meet the unexpected or unknown. However, implicitly these places are dominated by one particular group. According to Hajer and Reijndorp, spectators experience this as (social) exchange because they do not identify with the dominant group and are not familiar with its codes of behaviour. Yet they can legitimately walk around in wonder and take it all in. (Hajer and Reijndorp, 2006, pp. 89) Reconsidering Goheen's definition, does this imply that 'meaningful' public space is actually an archipelago of parochial islands? The answer remains ambiguous, but one thing is certain: people must first claim space before interaction can occur.

Figure 6, Vondelpark Amsterdam on a sunny afternoon. Source: https://www.expedia.com/Vondelpark-Amsterdam-South

BELONGING IN THE PAROCHIAL DOMAIN THROUGH PUBLIC FAMILIARITY AND THE IN-BETWEEN
As one gets to know the daily faces and routines of people in the neighbourhood, the feeling of belonging generally grows stronger. These little moments of recognition through eye contact, a greeting, or a nod, build a relationship with one's neighbours known as public familiarity.
As Widmer explains, 'public familiarity is rooted in spatial practice, but it highlights that practices need not always be active attempts to build neighbourly ties.' Even merely observing other people contributes to public familiarity. (Widmer, 2023, pg. 3) These anonymous yet recognisable people become part of the daily neighbourhood routines and fleeting encounters. Over time, they are no longer interchangeable and become part of one's familiar social surroundings. Maxime Felder describes this thin sociality of known strangers as 'invisible ties'. (Felder, 2020, pp. 682) Though public familiarity involves very limited interaction and may appear insignificant, through time it fosters a social network in the neighbourhood and with it, the feeling of belonging.

According to Widmer, the concept of "time in-between," i.e., the time during which people are on their way to live the rest of their lives, is an essential constituent of neighbourhood belonging. (Widmer, 2023, pp. 3) By forcing short encounters and morning greetings, the in-between space forms an important facilitator for public familiarity. Given time, residents may feel increasingly comfortable around each other, giving rise to a sense of community. Recognising and in turn feeling recognised and accepted by neighbours in these little in-between moments, greatly increase one's feeling of belonging.

BELONGING BY IMPLEMENTING THE 'WIJKGEDACHTE'
The idea of use and ownership over the parochial domain was an important design principle for Lotte Stam-Beese. In her 'ideal' composition of community sizes and diversity of households, she intended the in-between green spaces as well as the intermediate spaces within the buildings to host a vibrant social exchange. This made Pendrecht the first spatial implementation of the Wijkgedachte, which was advocated by A. Bos in his book "De stad der toekomst, de toekomst der stad (1946). The plans for Pendrecht were presented during the 7th CIAM congress (1949, often remembered as the 'grid' congress), and later also during the 8th CIAM (1951) on 'the core'. (Stam-Beese et al., 1993, pp. 53-55)

Shortly after the building of Pendrecht, in 1956, the possibilities, sizes and constraints of the neighbourhood unit were the main theme of the Congress for Housing & Town Planning in 1956. The conclusion was that the neighbourhood unit could be divided into two scales: the 'echelon patriarchal' consisting of 5 to 10 families on the one hand, and the 'echelon domestique' consisting of 50 to 150 families. The echelon patriarchal unit provided a scale in which housewives could interact and help each other. It was meant to be both a spatial and a social unity. By breaking the neighbourhood up in these smaller sections, it was thought that interaction and strong communities would naturally form. The echelon domestique was the overarching urban scale which provided daily facilities for the community to function semi self-sufficient. (Zweerink, 2005, pp. 152) Lotte Stam-Beese designed the neighbourhood units in Pendrecht for 90 households, forming an echelon domestique. This unit formed the structuring principle throughout the social, spatial, economic, and aesthetic concept. Six to eight neighbourhood units, each with a central green area, formed a district, four of these combined to form the neighbourhood Pendrecht. (Zweerink, 2005) During these post-war years, there was a strong belief among designers that a community was simply a matter of careful social engineering. It was assumed that qualities like fellowship and trust could be imposed top-down. However, this proved impossible in an increasingly dynamic society.

Figure 7, Lotte Stam-Beese during her studies at the Bauhaus Department of Architecture (ca. 1929) Source: Architectuul

APPROPRIATING SPACE

Many housing projects, among which Pendrecht, are designed with (outdoor) space for the residents to use. These spaces are often beautifully presented in design drawings as places full of activity and social value. Playing children, the elderly chatting and enjoying the fine weather, youngsters playing football, butterflies dancing between the lush flowerbeds; the space seems to facilitate everyone. But how realistic are these scenes? What characteristics does the design need to encourage people to use the space and make it their own?
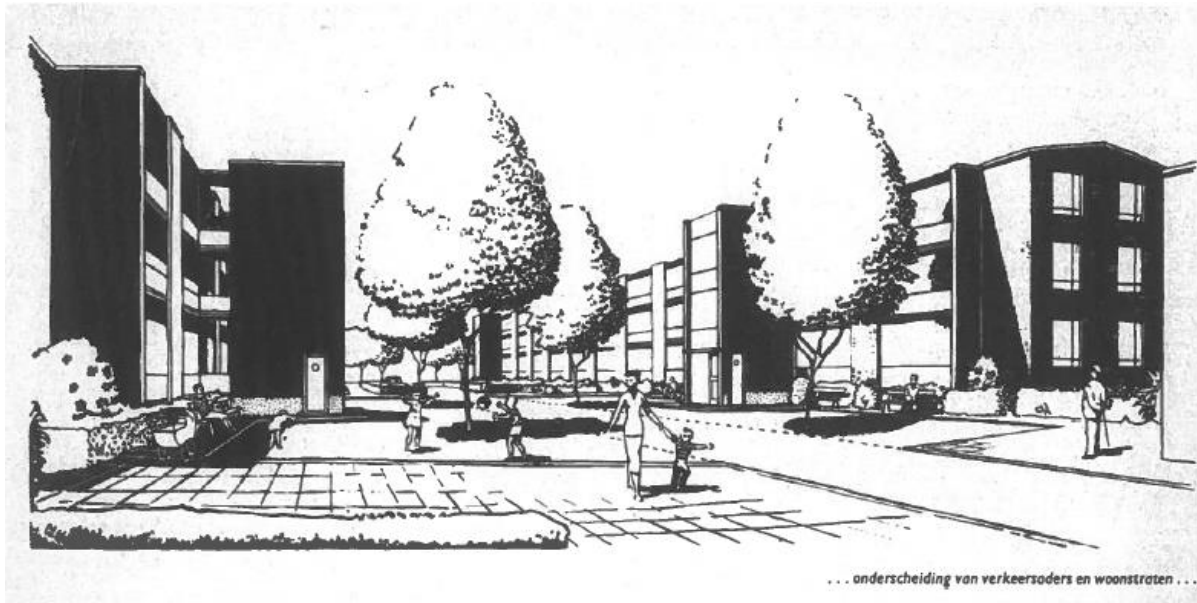

... onderscheiding van verkeersaders en woonstraten ...

Figure 8, Impression to promote the social dynamic in Pendrecht (1953) Source: Zweerink, 2005

CLEAR PRIVACY ZONES

Jan Gehl points out in his book 'Cities for People', that a thorough understanding of the human scale is essential in designing a lively, safe, sustainable, and healthy city. Vast spaces and large buildings leave little room for human (inter)action and create an unpersonal, formal and cold urban environment. (Gehl, 2016, pp. 59) This principle of human scale is of great importance in the public domain, but even more in people's direct living surroundings. The way people can 'read' the space around them and break it down into manageable areas, is elaborated on in the book Privacy Script. According to the authors, this readability of space is necessary to regulate social contact. (Van de Wal et al., 2016, pp. 27) Inside one's apartment building, where there is limited access, there is a different degree of social coding than outside on the public street. In this in-between space transitioning from public to private, a resident has an increasing amount of control and responsibility. Where this gradual shift is missing and one directly enters the public domain from one's doorstep, there is little connection with the space nor with one's neighbours. This leads to less involvement with the surrounding community, social awkwardness and increasing maintenance issues. (Van de Wal et al., 2016, pp. 20)

OWNERSHIP AND AGENCY

As the in-between spaces leading up to one's front door gradually become more privatized, one can exercise more ownership over the space. This becomes evident in an individual claim to the space, for instance a doormat in front of one's door. The space can also be claimed as a community, for example when the neighbours living on the same corridor decide to add plants along the railing or Christmas lights along the wall. These are all forms of asserting one's claim to the space. Instead of an anonymous corridor, passers-by recognise this as an appropriated space where they are expected to respect the code of conduct. The space is not a white canvas anymore but has been given meaning and identity.

When the privacy zones are readable, individuals can more easily claim and care for the parochial domain. Take for instance a doorstep around which the owner has placed plants and a little bench. The slight difference in pavement around the doorstep might provide the framework for his territory. Although this space does not formally belong to the resident, the design of the pavement invites him to claim it and use it as his own. As more residents claim parochial space this way, the shared feeling of responsibility and involvement increases. The small architectural interventions that emphasize the different privacy zone, give agency to the space. As can be seen on the pictures below, clearer boundaries between privacy zones often result in a more confident claim to the space by residents.

Figure 9, benches with slight separations between houses

Figure 7, large flower beds, somewhat creating niches

Figure 8, Low fences separating the street from the house

Figure 9, High fences shutting off private gardens from view

SITE ANALYSIS OF PENDRECHT

Keeping the above in mind, there are several points evident in Pendrecht that stand in the way of community building in the in-between. These preliminary conclusions are based on merely four site visits and a number of short interviews and will need finetuning through further research on site.

BELONGING

It is remarkable that Lotte Stam-Beese's plan to lower the thresholds between public, parochial and private domains, seems to lead to the opposite result of what she intended. Instead of forming one flowing domain which everyone uses intensively, the absence of gradations leads to defensive behaviour. People want to add more distance and barriers between their front door and the public street. The following pictures show different ways in which the original design has been adapted to keep out unwanted guests and create a sense of security.
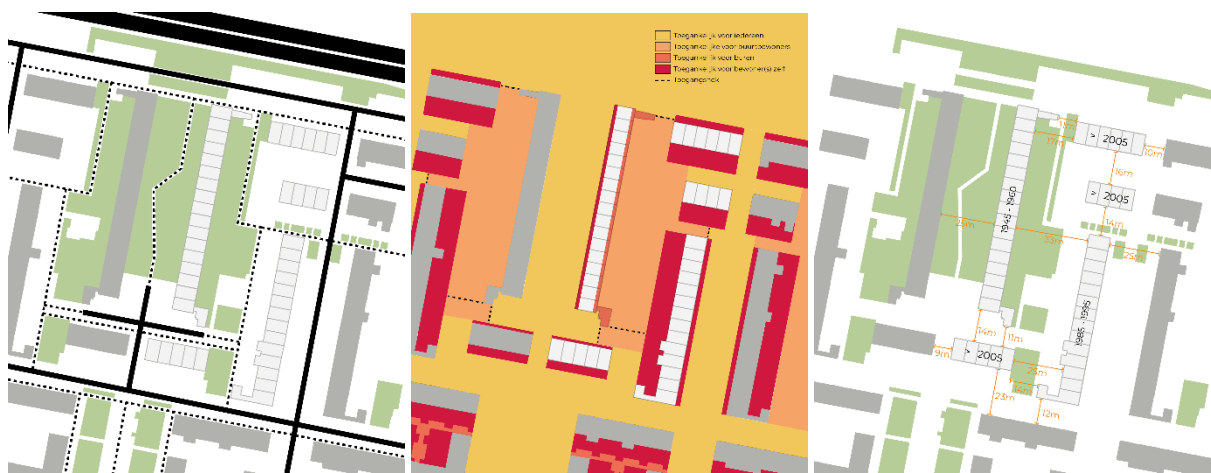

Figure 10, analysis of Den Bommelhof, one of the last remaining typologies of the neighbourhood unit in Pendrecht. From left to right: traffic flows, privacy zones, measurements and building years. (source: own work)

This also seems to be an expression of the 'us versus them' mentality that is widespread in Pendrecht. As mentioned, the neighbourhood is largely populated by immigrant workers, mainly from Morocco, the Antilles, Suriname, Turkey, and eastern Europe. In the words of one of the residents: "The Moroccans demolish it for the Antilleans, the Antilleans for the Turkish people and so forth... The groups are mutually exclusive." This schism between different ethnic groups came up in almost all talks I had with residents. It should be noted though, that these talks were almost all with the older, white residents of Pendrecht. The 'fear of the other' however, does seem to be a major barrier in the feeling of belonging and affinity with the neighbourhood. As Blokland and Nast pointed out, social networks and local communities do not easily develop in diverse groups with many different backgrounds. This has become evident in Pendrecht too, and stigmas about 'the other' seem to be firmly rooted in the minds and hearts of residents.

Figure 10, extra barriers on the ground floor to create a sense of security

Although the living unit is clustered around the central garden, there is hardly any interaction between the green and the houses. This may be partially due to the following two things. Firstly, most of the building blocks are elevated towards the garden. This means that even the ground floor apartments have no direct access to the green and cannot use it. Secondly, the entrances are designed in such a way that they do not require anyone to cross the central green. As can be seen on the drawing below, the entrances to the smaller blocks are located on the side of the garden or hidden behind a row of trees. Besides, these houses have individual backyards to spend time outside (shown as orange shapes on the drawing). The entrances to the high apartment blocks are located on the side and rear of the buildings. This means that even though there are a lot of windows (and eyes) on the central green, it is not easy for a resident to actually respond to anything that happens there. It takes him at least several minutes to exit his balcony, walk down the hallway, descend the stairs, walk around the building to the garden. The feeling that many people may be watching, but in a moment of need no one can quickly help, may very well deter people from feeling comfortable here.
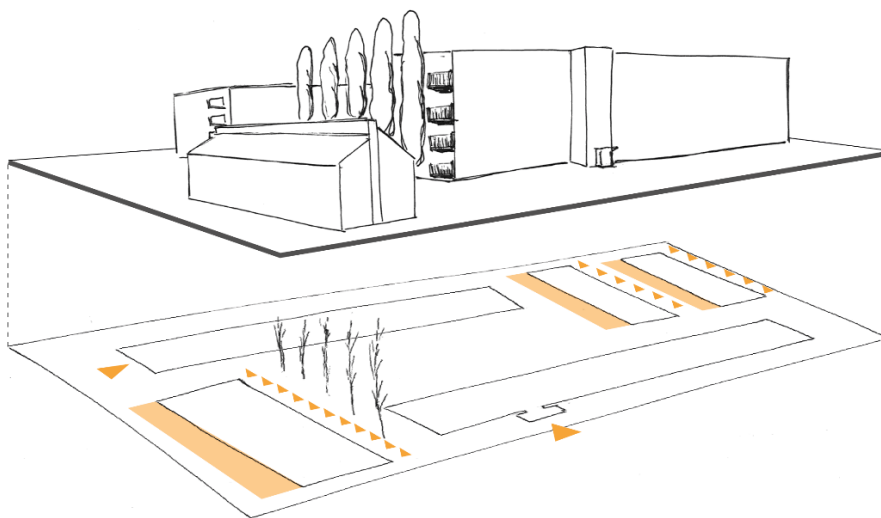

Figure 11, entrances to apartments in the living unit and the private garden pots on the rear of single-home houses.

APPROPRIATING

As the feeling of belonging seems to lack among residents of Pendrecht, the appropriation of space also stalls. During the site visits in the morning and early afternoon, there were but few people on the street. All of these were on their way to somewhere else, there was no one who loitered in the space. The map below shows the main access roads, car roads and car-free 'play' streets for children Lotte Stam-Beese designed in relation to the playgrounds that exist in the current situation. Especially in the northern half, the lively streets that were imagined have died down. Due to the many adaptations of the building blocks and the street network through the years, the overall coherence and recognisability has faded. In response to the question if he ever enjoyed the sunshine on one of the benches, one resident answered: *"No, we always go to the Zuiderpark or Charloisse Hoofd, you shouldn't want to sit anywhere in Pendrecht."*
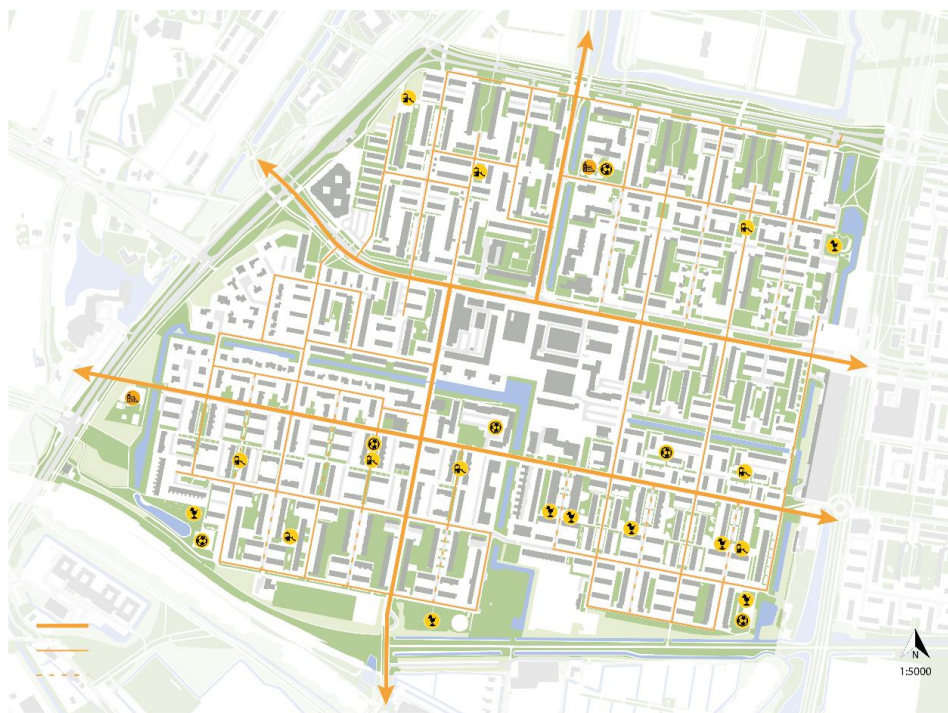

Figure 12, Main access roads and playgrounds in relation to the current playgrounds

This lack of activity and use of the space is partly to blame on the fact that Pendrecht now houses mainly single person households instead of families. This decreased the amount of usage of the public domain as well as that of the neighbourhood facilities. The map below indicates in yellow where Lotte Stam-Beese had imagined shops for daily groceries and other facilities. Now these facilities have decreased and centre around Plein 1953 instead of providing a separate core for each quadrant of Pendrecht. This lack of people and facilities cause the residential area of Pendrecht to host very little (social) activity in the public and parochial domains.
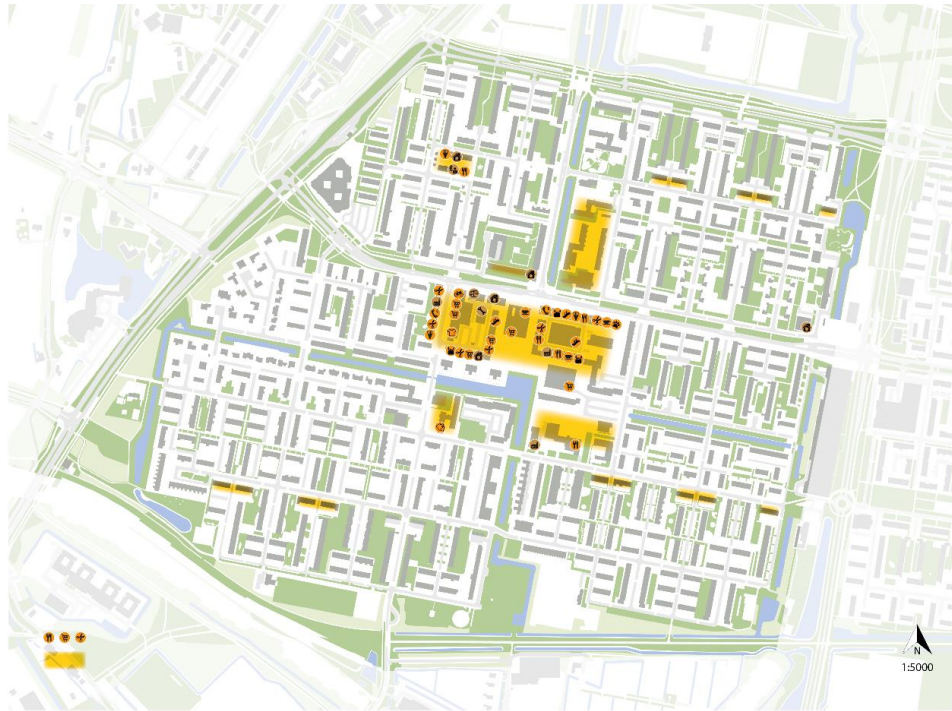
Figure 13, Planned and current daily facilities in Pendrecht

A further discouragement to the appropriation of space is the multitude of 'stay out' signs. These stand at every entrance to a green zone and might very well deter residents as well as outsiders from using the space. It is unclear who is allowed inside, let alone who may adapt the space to their need.

Figure 14, Sighs stating 'Access prohibited for those who are unauthorized'.

As the space is not used for recreational purposes, some residents degrade it to a place where they can dump garbage or store materials. No one seems to feel responsible for these areas, so assumably other residents simply accept this behaviour. The fact that the housing blocks do not have a recognisable front and back side, may also add to this misuse of space. As there is no hierarchy in facades, there is no expectation to keep certain sides better kept than others.

Figure 15, Misuse of the parochial domain by dumping garbage.

Lastly, there is the issue of human scale. The continuous green zone enveloping the buildings is so large, that the size deters residents from using the space. It is not possible to delineate a small part of the garden, the feeling of vulnerability in such a plain will remain. Coupled with the fact that the original architectural design sought to blur the lines between public and parochial, the space does not feel communal or usable.

Figure 16, The gardens are not proportioned according to human dimensions.

RESIDENT'S VIEW ON THEIR NEIGHBOURHOOD

In order to test the above theoretical framework, the author held various short interviews with residents of Pendrecht. The result was about 75 opinions and experiences about the neighbourhood, gathered from children, the elderly and middle-aged residents. Though this does not form a complete image of Pendrecht, it did lead to some interesting insights. Reoccurring themes have been linked to Plein 1953, the school district, Metro Slinge and a playground on the edge of Pendrecht. By visualising the residents' perspectives of each of these places in a scenario, the author attempted to understand the social dynamics in Pendrecht better.

Figure 17, Persona's on Plein 1953. Source: own work

PLEIN 1953

The main activities in Pendrecht, both social and functional, are located around Plein 1953. Lotte Stam-Beese designed each quadrant to have its own small provisional cluster in addition to Plein 1953, but most of these shopping clusters disappeared over the years. This leaves the only housing around Plein 1953, public space that hosts very little activity and often feels unsafe. For daily groceries, most residents visit Plein 1953 and the adjacent Krabbendijkestraat regularly. In addition to the two supermarkets and various non-Dutch stores, there are many nail salons and barbershops. Some residents mention that these shops change hands too often and wish they would be replaced by 'regular' stores such as a butcher, baker, or florist. These functions are now missing and could give more stability to the shopping cluster.

In addition to daily provisions, Plein 1953 also links the social institutions such as Vitaal Pendrecht, College '53, Pendrecht Universiteit and Seinpost. These first three are located in the same building, flanking the square. These institutions provide many services and classes to residents and play an important role in bridging the gap between different social groups. Nonetheless, their place on the square is inconspicuous and almost tucked away from main sight. The most prominent influence on Plein 1953 is the Dirk, one of the two large supermarkets in the cluster.

Some residents, mainly youths and elderly, enjoy sitting and hanging around in the square when the weather is inviting. However, due to the large scale and few seating options, encounters are sparce. Instead, traffic nuisance has increased across the square. In the Krabbendijkestraat as well, the adjacent shopping street, fast driving has become a growing point of annoyance.

Figure 111, Persona's around the schools and canals in Pendrecht. Source: own work

SCHOOLS AND CANALS

Residents often mentioned that they appreciate the abundance of green space in their neighbourhood. However, upon enquiry, very few said to actually make use of these spaces for recreational purposes. The large amount of littering and abandoned trash decreases the perceived value of the green spaces and canals. For walking or sports, most residents go to the Zuiderpark, though some do enjoy strolling through their own neighbourhood.

Parents frequently take their children out of Pendrecht to find a suitable and safe playground where they can spend the afternoon. The wide green axes which the canals form through Pendrecht are not programmed for recreation, and the vicinity of water makes it dangerous for small children. The schoolyards close after opening hours, which further decreases the availability of playgrounds.

There are four elementary schools located in Pendrecht, two of which are clustered directly to the north of Plein 1953, and the other two bordering it on the southeastern side. Though the municipality is working hard to reduce the amount of drug related crime and disturbances, the sight of drug addicts is still a daily reality for these schoolchildren.
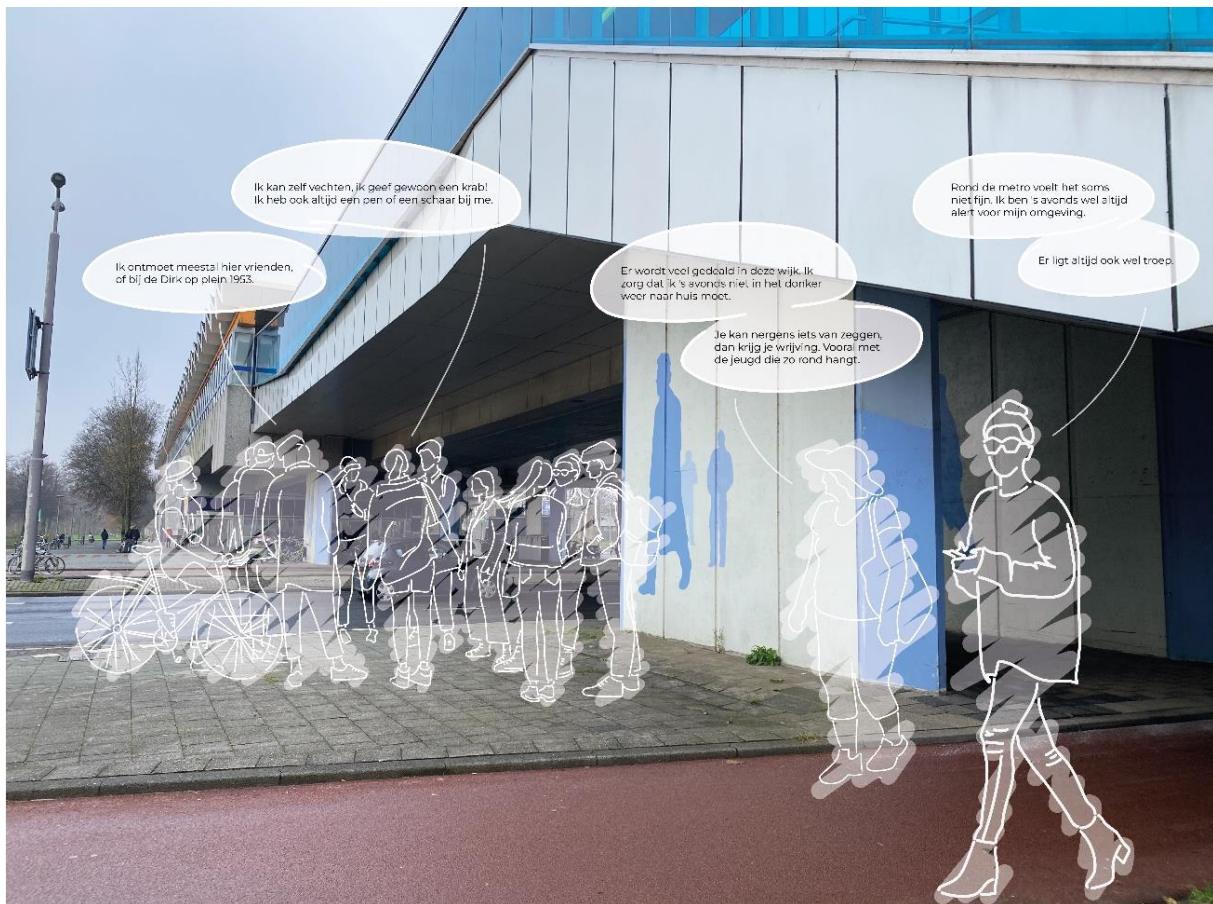
Figure 112, Persona's around Metro Slinge. Source: own work

METRO SLINGE

The Metro Slinge is a crucial node in Pendrecht as it is the main access route via public transport and separates Pendrecht from Zuidwijk. This adjacent neighbourhood is similar to Pendrecht in its urban layout and context, but residents from either area strongly identify with their own neighbourhood. The municipality, however, prefers to see them as one entity, and organised the public facilities to serve both. The community centre (accurately named the Middelpunt) is located directly across from the metro station on the Zuidwijk border, in order to be a linking function between the neighbourhoods.

Besides Plein 1953, residents also referred to the metro as a place where people tend to gather. Due to the steam of commuters, there seems to be a continuous activity around the metro that fades away as people spread into the neighbourhood. Groups of young people often gather under the metro line, which creates a negative sense of safety for other residents. The (perceived) threat of drug related activity around the Metro increases this feeling of unease. Especially after dark, the uncertainty about what may happen there and the lack of 'eyes on the street', discourages free use of this public space.

Figure 20, Persona's at a playground in Pendrecht. Source: own work

PLAYGROUNDS

Starting in 2009, a largescale restructuring of Pendrecht began (see paragraph 'socio-spatial development of Pendrecht' on page 9). Several residents mentioned to be proud of these housing projects and saw it as a sign that Pendrecht is on the rise. The new houses are mainly single-family homes, with less unidentified space between them than the original apartment complexes by Lotte Stam-Beese.

In the process, several playgrounds were removed, to great regret of parents and schoolchildren living in the vicinity. The new playgrounds were programmed to fit the needs of new families with small children. According to young residents, this reduced the places where they could play to about three or four. For youth going to secondary school or older, there are even less facilities. Parents mentioned that many playgrounds also have very scarce seating, which makes it difficult to watch their children.

Just like around Plein 1953, bad driving has become a regular issue in the housing area of Pendrecht. Especially for playing children and the elderly, cars exceeding the speed limit and parking incorrectly prove a threat. Confrontation also occurs between different resident groups. One very clear instance is the estrangement that many elderly Dutch residents feel as their own circle of acquaintances dwindles and more non-Dutch people move into Pendrecht. Distrust and fear towards the unknown 'other' increases, and they often mention not feeling safe outside.

POTENTIAL ON THE PUBLIC AND RESIDENTIAL SCALE

The above scenario's reveal several points of confrontation and convergence of interests. These are translated to the value map below. **When the neighbourhood is taken as a whole, the issue of anonymity and disconnection can be addressed on the residential scale or the public scale. Ideally, both are undertaken in order to revive the neighbourhood to a healthy state. However, in this case the public scale is perceived to be the most rewarding.**
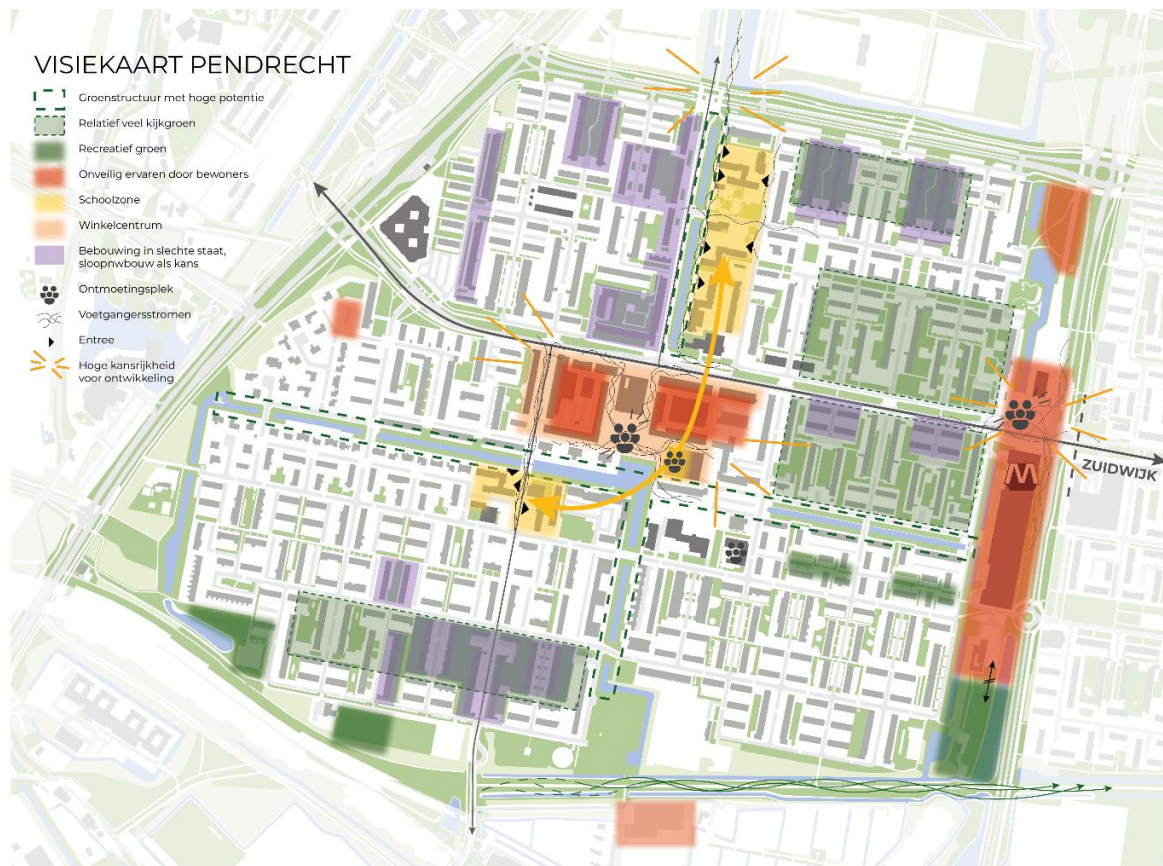

Figure 21, Value map of Pendrecht. (Source: own work)

This is mainly due to the mono-functional zoning present in Pendrecht. The facilities and amenities are centred around Plein 1953, while the surrounding area is solely housing. Fieldwork shows that many residents feel very little connection with their direct surroundings or with their neighbours. Because of this, (social) activity in Pendrecht is almost completely limited to Plein 1953 and the Metro. Because these places already attract a wide public and provide possible connections, it is more likely that bridging can be facilitated here than in the residential area.

Also, the amount of bridging possible in the parochial domain of the residential area seems to be limited. By definition, a parochial domain is not meant to be open to the public. Though social initiatives on the parochial scale can greatly increase the feeling of belonging and interaction among neighbours, the bonding created on this scale will always be limited to whatever dominant group happens to be among the neighbours. By investing in primarily in these parochial relationships, the coherence of the neighbourhood as a whole is at stake. Each of these pieces of Pendrecht might gain a stronger identity and coherence, but this simultaneously increases the friction with the adjacent piece. As the objective is overlap between different social groups rather than empowering fragments, the public realm is better suited than the parochial realm.

CHARACTERISTICS OF A SUCCESSFUL PUBLIC DOMAIN

As the current dynamics in the public space of Pendrecht become clearer, they must be compared to the objectives of a successful public space in order to find the points where intervention is most needed. In the following paragraphs, the author will therefore attempt to briefly summarize these characteristics.

EXCHANGE AND MEETING

In policy papers, the central objective of the public domain is its function as a place of meeting, which all groups of society must use and intermingle. In their book In Search of a New Public Domain, Hajer and Reijndorp choose to use the term 'exchange' rather than 'meeting'. This relates more closely to the dynamic in the public domain; the confrontation with other opinions and the effect this has in the development of one's own ideas. The function of 'meeting' is a romanticized image of the public domain and requires careful reconsideration.

CONFRONTATION AND SURPRISE

As discussed in the paragraph 'belonging in the public and parochial space' (page 10), this exchange with the unknown or unexpected is a primary characteristic that attracts people to public space. In facilitating this cultural exchange, the public domain is highly important in our rapidly densifying and diversifying cities. Direct confrontation and personal perception of 'the unknown other' forces us to relate to these others, however slightly. This is a strong antidote to stereotyping and stigmatization. (Hajer and Reijndorp, 2001) This process of adapting happens slowly but steadily over time, as small incidents of confrontation and surprise pile up. In the current time of polarization and densification, the importance of the public domain in this process cannot be overestimated.

PROPORTION AND CHALLENGE

The proportion and layout of the public space is a defining element in its use as a public domain. The space must challenge the user and provide the flexibility to fit varying needs of different groups. Various functions along or in the public domain may aid in this diversifying of use. Regardless of whether it concerns seating, kiosks, street artists, terraces, or shops, each have their own sphere of influence into the public domain and encourage different use and behaviour.

As a spectator and concurrently an actor, the user needs a mixture of movement and continuity, of passing through and staying. These elements must blend together in the layout in such a way that the user has the possibility to choose his or her role. Whether this role is mainly active or passive does not matter, either way he or she still participates in the dynamic. How far one goes along in the experience of the public domain remains a personal discission.

AN EXPERIENCE RATHER THAN A PLACE

These characteristics work together to give socio-cultural meaning to the public domain we share. This domain often pops up in unexpected places, places with history, memories, or where certain events took place. It is not defined primarily by its form, but by what happens there. Therefore, Hajer and Reijndorp state that the public domain is not so much a place but rather an experience. A space that happens.

SITE ANALYSIS OF PLEIN 1953

The main public node of Pendrecht is Plein 1953. Situated in the heart of the neighbourhood at the crossing of the singels, it is literally the centre of Pendrecht. Nearly all public and commercial facilities are located on or directly around this square. The square is exceptionally large, and gives the same anonymous, undefined, and unused impression as most of Pendrecht's other large open spaces. It is framed by a low strip of buildings on two opposite sides, which have stores on the ground level and apartments on the first floor. As can be seen on the right image on the next page, the third side used to be in open towards to the main traffic artery through Pendrecht, the Slinge. In the current situation, this connection has been obstructed by a supermarket, so that the square is not visible from the Slinge. The fourth side of Plein 1953 opens up towards a rather large pond that forms the centre of the singels.

In the light of the beforementioned characteristics of successful public domain, Plein 1953 fails on a number of aspects. These will be shortly discussed below.
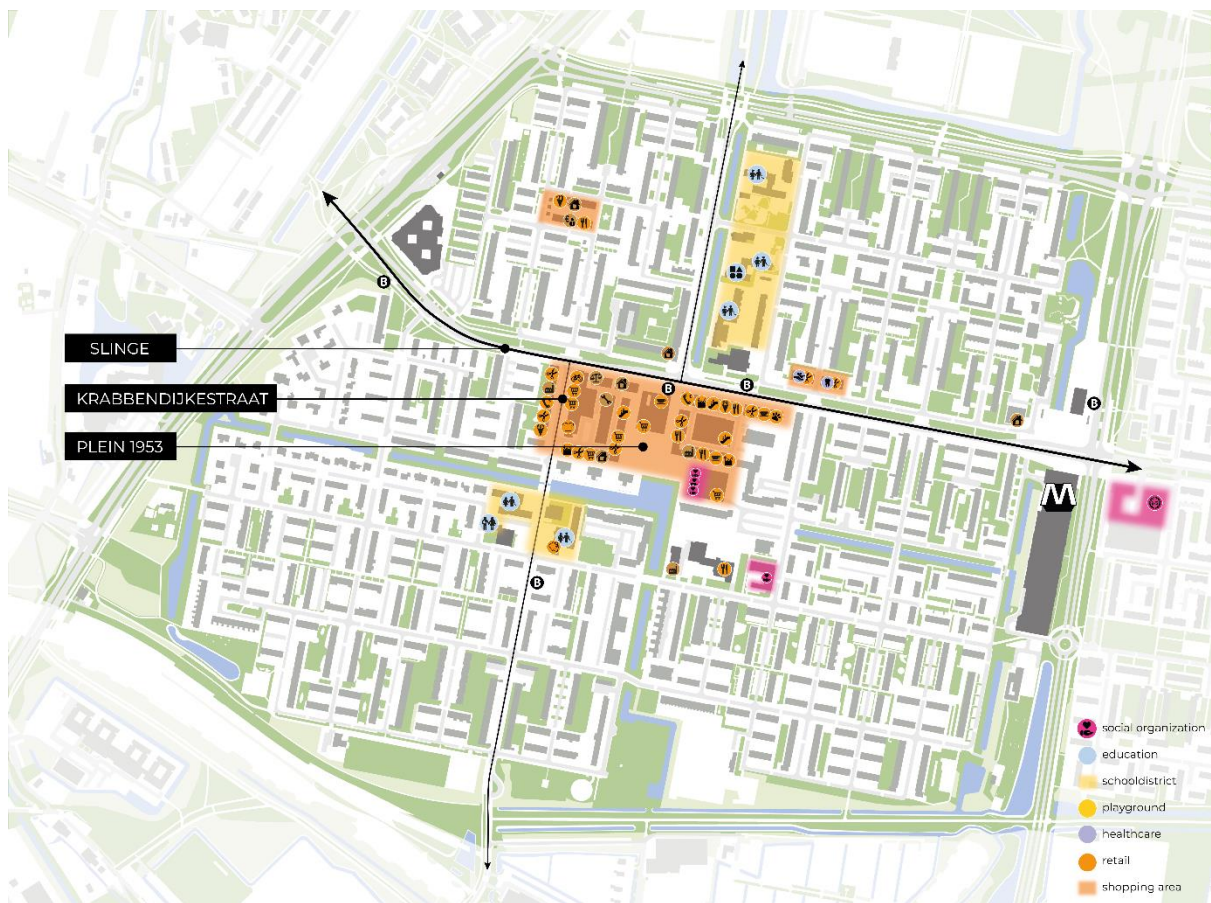

Figure 22, Inventory of functions in Pendrecht

Figure 23, Images of Plein 1953 shortly after its completion. Source: Stadsarchief Rotterdam

EXCHANGE AND MEETING

The dominant function of Plein 1953 are its supermarkets were many residents shop for daily groceries. This group of users rarely lingers on the square before or after their goal, namely doing their groceries. Thus the main stream of people seen on Plein 1953 are simply passing through, not considering staying. The layout of the square seems to stimulate its use as an efficient transition space. The wide-open space provides no obstructions that may seduce the passerby to stay a while, nor hardly any places where they may comfortably sit. The interaction that does occur on the square seems rather to be in spite of the design than because of it.

CONFRONTATION AND SURPRISE

Besides the supermarket, which takes up an entire side of the square, there are several other little shops around the square, many of which are non-Dutch. However, none of these has a function that connects to the square, which leads their visitors to come and go in the same manner as the supermarket shoppers. Because of the homogeneity in functions, Plein 1953 does not naturally give rise to different spheres of use or users. The possibility of friction and contact is therefore minimal. In their role of 'shopper', everyone on the square is the same. No exchange takes place.

Figure 24, The dominant presence of the supermarket (left) and the other small shops on the other two sides (right)

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The confrontation and surprise that does occur happens in the maze of streets on either side of the square. The alleyway along the rear sides of the buildings that line the square, is not conducive to the perception of a safe and inclusive public domain at all. These streets have few windows, but are lined with cars and litter, and several shady-appearing entrances.

Figure 25, Impressions of the alley along the rear of the buildings lining Plein 1953. The right picture shows the entrance from the alleyway towards the square. Source: own fotographs.

PROPORTION AND CHALLENGE
As mentioned, the size of the square is disproportionate for the number of users. Its size becomes a barrier to social interaction and appropriation of the space by residents. Also, because the strip of shops extends along the Slinge (shown in picture below) and the Krabbendijkestraat, the square itself lacks a clear hierarchy in its value as a central public space. This undefined characteristic of the square is strengthened by the long and broad offshoots that extend from each of the four corners. Lined by stores or closed fronts, the continuous paving suggests that these areas belong to the square as well. This 'flowing' space with its undefined borders, is a typical modernist ideal that is also reflected in the open green zones of the residential parts of Pendrecht. In both cases, though different in scale and target group, it facilitates anonymity rather than social interaction.

Figure 26, Right: shops along the Slinge, Left: one of the offshoots from Plein 1953. Source: own photographs

DESIGN AS A TOOL FOR A SUCCESSFUL PUBLIC DOMAIN

In the essay 'A tool for public realm', Lieke Kranendonk (2006) defines three tools that contribute to a successful public domain: people, events and the design. Although all three have generative features, people and events can best be seen as indicators whether a public domain functions well or not. If the public domain does not function well, it will lose its interest and value simultaneously with the ending of the event or gathering.

Though people attract more people, the design can be the reason that people are attracted in the first place. And though an event can change an urban void into a hotspot for a while, the design can ensure the place to always be of value for a wide public. Therefore, the design is the primary tool among these three to create a successful and resilient public domain. In order to reach this goal, the main objective of the design is to generate the experience (see pp. 21). This is just as much about creating activities, exchanges, and interactions as it is about creating space. (Kranendonk, 2006)

There are two key ingredients that enable a design to generate experience and function as a catalyst of successful public space. These two are the combination of program and the layout of the program. (Kranendonk, 2006)

COMBINING PROGRAM

It is of great interest for the public realm to have at least two or more functions. A variety in program gives the design the advantage of attracting a wide and diverse public. Note that one of these programs must be the dominating function. Dominating in this sense, is synonymous with occupancy. This way the space has a main activity for which it is claimed, without the exclusion of smaller activities and groups.

> *'When a space consists of more than one sphere, a group can dominate an important place, while elsewhere the chances for other groups are guaranteed. Public domain as a sphere of interchange and confrontation in society presupposes the nearness of different spheres rather than completely shared use of a space.'*
>
> - *Anthony P. Cohen (Signifying identities, 2000, p.36)*

The commonly accepted idea that the public domain should be a place where all strands of society are represented and have fully shared use of the same space, is a romanticized myth. A more realistic approach is to see the public domain as an archipelago of enclaves; a collection of spheres which are claimed and that each are claimed and thereby change into a parochial domain.

LAYOUT OF THE PROGRAM

The mutual proximity of these different spheres facilitates excitement and friction in the public domain. This is intensified if several groups are interested in the same object or space, so that the proximity increases. In particular the borders and in-between space between these spheres become places where contact and interchange can take place. For instance, a person who is attracted to a certain sphere, is exposed to the adjacent happenings of the unknown 'other'. This experience may lead to a slight change of perspective for a moment, a little exchange. Where this contact and interchange can take place, is where public domain can flourish.

A careful layout of the program allows space for different groups and uses, as well as these places of overlap. Hight differences in the layout may be a very effective way to create different spheres and the possibility to distance oneself while still allowing interaction by sight.

DISCUSSION AND REFLECTION
BELONGING AND APPROPRIATION IN THE INITIAL URBAN DESIGN OF PENDRECHT

The site analysis points out that there are multiple characteristics in the original design that stand in the way of the feeling of belonging and ownership in the neighbourhood. Although the privacy zoning and housing quality of the new building plans has proved to be an improvement, this restructuring has not revived the social coherence that was the fundamental design ideology of Lotte Stam-Beese. The 'fear of the other' limits residents in their contact with neighbours of different backgrounds. What is more, the friction between groups and the resulting feeling of unsafety leads residents to defensive behaviour. This agrees with the conclusion by Blokland and Nast that social networks bridging different backgrounds in the parochial domain rarely develop without an exterior stimulus. As the original design of Pendrecht provides little or no gradations between the public and the parochial domain, residents who feel vulnerable add their own barriers around their private domain.

In addition to the lack of clear privacy zones, the absence of direct access from the apartments to the communal garden discourages the feeling of belonging and use of these spaces. The ground floor apartments are elevated and thus distanced from whatever takes place in the garden. Besides that, the entrances are located at the rear of the apartment buildings, which means that the communal garden does not have to be crossed or otherwise used by residents at all. This lack of connection between the apartments and the communal space makes it more difficult for residents to use it as their own.

As the building blocks and street network have been adapted through the years, the original coherence and readability of the neighbourhood structure has faded. The differentiation between children's 'play streets' and car dominated streets has disappeared, leading to less appropriation and liveliness. The liveliness in the neighbourhood has also decreased due to the diminishing of facilities. What remains is centred around Plein 1953. This leaves the rest of the neighbourhood with hardly any public (social) activity, shops, or meeting places, which figure as natural catalysts of social networks.

As the communal gardens are not used in any high-quality way, residents degrade it to a storage space use it to dispose of their garbage. These forms of misuse show the lacking sense of responsibility for these communal spaces among residents. The many 'stay-out' signs placed all around further decrease the attractiveness of the gardens. In addition, these signs create uncertainty about who is allowed access and discourage any kind of ownership residents might assume.

Finally, the scale of the communal gardens is too large for human convenience and comfort. The space becomes anonymous and is too widespread to facilitate public familiarity, thus losing its parochial function. Instead, it turns into a public domain. But it does not have the urban activity and social exchange that attracts people in the public domain, that lets them 'walk around in wonder' and experience the unexpected. Both this feeling of public belonging through the sense of not-not belonging and the feeling of parochial belonging through public familiarity are absent.

The above dynamics and spatial characteristics in Pendrecht make it difficult for social networks and inclusive communities to form. Even superficial acquaintances and public familiarity do not seem to develop. However, the abundance of greenery and space provides a rich source of opportunity. If these communal spaces are recoded and regain their social function, perhaps they could help bridge the seemingly inevitable contradictions of the contemporary metropolis.

RESIDENTS' PERSPECTIVE AND EXPERIENCE OF PENDRECHT

In the first place, it becomes clear that very little of Pendrecht still resembles the urban plan and logic which Lotte Stam-Beese envisioned. Most of the neighbourhood has been rebuild and these various housing projects have lost the coherence and structure which were the strengths of the original design. Instead, Pendrecht has become as patchwork of typologies. Thus fractured, residents have little to identify with as their neighbourhood. Instead, an anonymous and unsafe public domain divides residents even more.

Secondly, the axes formed by the canals and greenery are an important point of reference, both for the residents as for the coherence of the neighbourhood. The placement of schools along the northern and western axes further increases the importance of this structure. The area shows high potential for linking the school clusters and integrating Plein 1953 as the centre node that hosts various social and public amenities.

In the third place, although there is an abundance of green space, this is hardly ever used by residents. The recreational green spaces that Pendrecht has, are located along the southern edge of the neighbourhood instead of in the vicinity of other activities. In spite of the abundance, there is a lack of user-friendly green. The map below shows points which residents identified[2] as places of social interaction. The recreational areas are clustered on the south edge of the neighbourhood. Besides these, the points of intersection are concentrated in the near vicinity of Plein 1953.
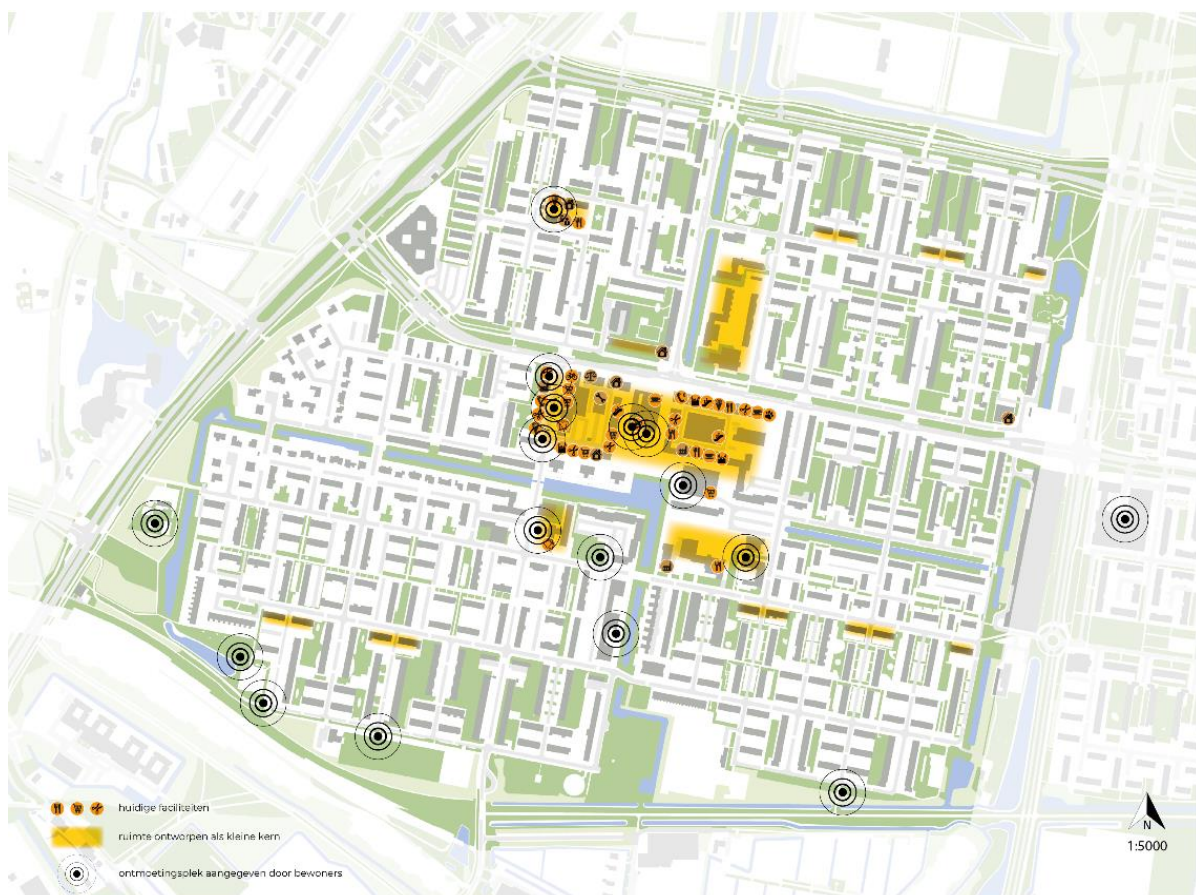

Figure 27, Points of social interaction as identified by residents. (source: Veldacademie, 2023)

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[2] According to interviews held for the project Wijkidentiteiten by the Veldacademie in 2023.

Fourthly, there are clear areas where the perception of unsafety is concentrated; namely around Plein 1953 and the Metro. The mono-functional zoning creates a 9-til-5 timeframe outside of which these places have very limited social control. However, at the same time, these are the spaces where most paths cross and residents regularly come into contact with each other. Along with the pedestrian connection to the Zuiderpark which lies along the northern border of Pendrecht, these two places show high potential for interaction and exchange.

OVERLAP AND EXCHANGE IN PUBLIC SPACE
In policy papers, the central objective of public space is its function as a place of meeting. A place where all different classes of society intermingle and interact. However, this proves to be a romanticized image. Often the places meant for everyone end up used by no one. These spaces gradually lose whatever social value or function they had and degrade to transition space. This is the case in most public spaces in Pendrecht. Without the bridging function of the public domain, suspicion and the perception of unsafety increases more and more.

In reality, public space has to turn into a collection of parochial domains in order to truly function as a public domain. Only where two or more of these domains overlap, does contact and exchange occur, giving socio-cultural meaning to the public domain we share. The Spanish architect and city planner Manuel de Solá-Morales formulated this interdependency between public and private space as follows:

> *"The wealth of a city lies in its collective spaces, in all the places where everyday life takes place, is manifested, and remembered. An increasingly, perhaps, these are spaces that are neither public nor private, but both at once: public spaces that are used for private activities, or private spaces that allow collective use."*
>
> *Manuel de Solá-Morales*

From this follows that a public space must host at least two or more functions in order to create this overlap of parochial spheres. The proximity of these spheres to each other is a key aspect to facilitate interaction, creating a possibility for confrontation but also for curiosity. Direct confrontation and personal perception of 'the unknown other' forces us to relate to these others, however slightly. This is a strong antidote to stereotyping and stigmatization. In these border spaces, where the spheres overlap and the experiences are strongest, the public domain flourishes and creates places that happen.

CONCLUSION

Although the social ideals behind the design of Pendrecht was ambitious and forward-thinking, this vision did not lead to a resilient urban structure. Therefore, it was inevitable that other typologies were introduced in the neighbourhood. These building projects improved the physical living conditions, but they did not introduce a new social structure, nor strengthen the existing one. The spatial and social patchwork that emerged lacks social cohesion and leaves public spaces anonymous, desolate, and unsafe. Although Pendrecht has a richly diverse population in addition to many neighbourhood initiatives and social activities, these are separated from one another as well as from the public domain. This leaves Pendrecht with hardly any public spaces where social and cultural exchange may occur. Residents experience minimal connection with each other or with their neighbourhood, resulting in annoyances, lack of understanding and a strong perception of unsafety.

This leads us to the research question with which this paper started out: *How can the public space of Pendrecht facilitate exchange and interaction?* To overcome the sense of anonymity and unsafety, Pendrecht requires an intervention on the scale of the neighbourhood as a whole. It needs a public space which invites residents to appropriate, experience and participate. It is important that this space provides a diverse program, attracting a broad public and creating a possibility for exchange and curiosity. The resulting confrontation forces us to relate to the 'unknown other' and creates a better understanding of each other's world, thus promoting bonding and social cohesion.

Plein 1953 displays great potency to connect networks and facilitate interaction, both by its central location as by the facilities which are clustered around it. However, the square does not benefit from this due to a lack of program and its unmanageable scale. It needs an attractive combination of program as well as a user-friendly layout in which privacy zones are readable. The answer lies in a public building where various functions overlap and spread out into the public domain, giving new meaning to the square around it. A place where path's cross and networks may form. This building is the catalyst needed to revive a healthy and lively public domain in the heart of Pendrecht. The ideals of Lotte Stam-Beese reclaimed, but this time initiated bottom-op instead of projected top-down.

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