Masculinities in public space

Reshape heteronormative public spaces to facilitate legitimacy for diverse gender identities

Master thesis Jonah van Delden 13-06-2022



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"Men cannot change if there are no blueprints for change."

Bell Hooks (2004, p. xvii)

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Acknowledgements

This graduation project has been an amazing opportunity for me to explore and extent the domain of urban design relating to gender and masculinities. I could not have achieved and learned as much as I did now without the support of many people.

First of all I would like to thank my mentors Els and Caroline for their support and critical reflections during the full length of this graduation project. Especially, I would like to thank them for the autonomy I enjoyed to conduct this research and our inspiring discussions which most of the time went beyond the specific research topic. Secondly I would like to thank Laura for her critical reflections which always motivated me to go beyond the ordinary and explore uncomfortable discussions.

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Also the Urban Fabric studio sessions and the discussions with peers were very valuable and enriched my thesis. Furthermore, I would like to thank my family and friends who supported me throughout this graduation project.

Abstract

Keywords: Masculinities - Heteronormative space - Urban Design - Gender Inequality - Amsterdam (Netherlands)

People across the world, identifying beyond the binary notion of gender and sexuality are often limited to freely access and appropriate the city and feel a sense of belonging. A general problem is that notions about gender are strongly embedded within the design of the built environment. To be specific: gender relations in public space are normatively coded as masculine and heterosexual. Whereas masculinity is understood as a man who is dominant and refuses to acknowledge vulnerability. The multitude of masculinities are mostly subordinate in the patriarchal urban environment as well.

The largely residential neighbourhood Gaasperdam in Amsterdam's South-East will be studied in greater depth to address and illustrate the spatial consequences. To be more specific, this thesis expands on the following research question: How can we reshape heteronormative spaces in Gaasperdam to facilitate legitimacy to diverse masculine identities?

To answer this question, a research-by-design approach is used to identify the challenges at hand and propose various spatial design interventions. In addition, the use of personas is critical for imagining and addressing different demands and appropriations of space.

This research made clear how the current built environment of Gaasperdam does not facilitate interactions between different masculinities, while these are very essential. Therefore, this thesis proposes to increase the diversity of public spaces in Gaasperdam, which safeguards individual needs. Secondly, more space for collective use should be developed which allows diverse masculinities to interact. The insights of this thesis are valuable to research fields which focus on spatial issues, such as urban design, urban planning, and architecture since it offers design principles to reshape our built environment to include diverse gender identities.

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Motivation

This graduation project interests me deeply, since I feel quite restricted when I talk about masculinity and gender identities to people, including friends and family. Many people relate these debates to feminism and activism, which aren't mainstream perspectives in our Dutch and Western society. This explains why most of these conversations are a bit awkward or uncomfortable. But these talks are all very necessary to foster change and are exactly the reason why I proceed with this research theme. I want to activate the current debate around gender identities to our every day spaces and explore various possibilities to facilitate non-normative behaviour in public space.

Moreover, it drives me to continue the project, since I feel an unease that this topic is not addressed within our urbanism curriculum nor at our faculty. Within research fields like sociology and urban geography and design related organisations, like: Pakhuis de Zwijger, Arcam and Het Nieuwe Instituut similar conversations are organised and those inspire me.

In fact there is quite some knowledge outside TU Delft that could be translated to our design profession which could foster improvements in our built environment.

As an urbanist, I want to disrupt the archetype and promote change in our built environment to facilitate and celebrate diverse interests and needs. More in general, I am very much convinced that diversity always improves the overall result. That's why I, as a white cis-gender man, criticise the masculine and heterosexual status quo. It only facilitates a very specific norm. This norm also offers me many privileges. But it also limits me to express vulnerability and urges me to be confident, competitive and dominant. That is why, I want to design public spaces and built inclusive cities which are are safe enough for everybody to express in the way they would like to. I'm looking forward to continue working towards this goal.



Introduction

The spaces we use day to day have been shaped and designed by someone and societal perspectives about our society are embedded within these designs (Kern, 2020). These perspectives strongly relate to the binary understanding of gender (Massey, 1994). This is a key insight to understand that space is never neutral and therefore serves different gender identities differently. More specific, gender relations in public space are normatively coded as masculine and heterosexual (Pain, 1991; Berry et al., 2021). Masculinity understood from a hegemonic perspective; of a man who is dominant, confident and refuses to acknowledge vulnerability (McVittie 2017; Van Tricht, 2018). The multitude of masculine identities performed by people are mostly subordinate in the patriarchal urban environment as well (Puwar, 2004; Hooks, 2004). Feminists have critiqued many issues of women's experiences effectively. But little is written about diverse masculinities and their appropriation of space (Hooks, 2004; Van Hoven & Hörschelmann, 2005).

The largely residential neighbourhood Gaasperdam in Amsterdam's South-East will be studied in greater depth to find the spatial consequences of this inequality. A more elaborated introduction to Gaasperdam can be read in the second part of the Introduction (p.12).

The objective of this master thesis is to find the spatial elements and structures that facilitate sexism, gender inequality and heteronormativity. Therefore, the following research question will be central in this thesis: **How can we reshape heteronormative spaces in Gaasperdam to facilitate legitimacy to diverse masculine identities?**

A concise analytical and theoretical part of the thesis (p.26) addresses the important notions from diverse research fields, which include sociology and urban geography. The spatial analysis of the project location (p.32) and multiple proposed design interventions (p.72) are the main body of the thesis. A more elaborated reflection on the project and the transferability of research outcomes is the final part of this thesis (p.116). This reflection also addresses more contextual discussions about inclusive urban design processes in relation to gender inequality.

Finally, the insights of this thesis are valuable to urban designers, urban planners and architects, since it offers design principles (p.112) to reshape our built environment to include more diverse perspectives on masculine gender identities.

Abbreviations

Gender

"Refers to the characteristics of women, men, girls and boys that are socially constructed. This includes norms, behaviours and roles associated with being a woman, man, girl or boy, as well as relationships with each other. As a social construct, gender varies from society to society and can change over time." (World Health Organisation, 2021)

Sex

"Refers to the different biological and physiological characteristics of females, males and intersex persons, such as chromosomes, hormones and reproductive organs."

(World Health Organisation, 2021)

Heteronormativity

"Heteronormativity emphasizes the extent to which everyone, straight or queer, will be judged, measured, probed and evaluated from the perspective of the heterosexual norm." (Chambers, 2007, p. 665)

Hegemonic Masculinity

The most socially valued form of masculinity which constitutes courage, confidence, dominance over other identities as well as over women and refusal to acknowledge vulnerability (McVittie, 2007; Van Tricht, 2018).

Where to start?

To be clear, the research topic is complex. Discussions about gender, masculinities and public space are embedded within different research fields. As an urban designer I primarily focus on the spatial elements. But it is very valuable and inspiring to understand how other disciplines relate to the topic.

Throughout this thesis project, I came across multiple inspiring sources which illustrate the complexity and extent of the research theme. This fuzzy mind map tries to categorise them to discover the important sub themes of the topic. Furthermore, these sources of information are first attempts to discover the extents of the theme and to understand the relation between masculinities and public space.



Lecture: Alternative Practices for Urban Inclusion, KU Leuven

Spatial implication

Several exhibitions focussing on the spatial design perspective helped me to construct the first sketches of the design.





Exhibition: Safe Spaces, ARCAM ource: Sanne Couprie

Appropriation of space

Ballroom culture, to me an inspiring underground scene where safe spaces are shaped by and for black queer and trans people. This exhibition helped me to understand how subordinate identities appropriate space.



Exhibition: Deep in Vogue Source: Kunsthal Rotterdan

Public safety

An interview with Sebastiaan van de Poll, teacher at Leiden University, department of criminology introduced me to ideas about public space safety within queer nightlife.

Design practise

Leontacted Veerle and Catherine from Respons, a podcast series focussing on feminist approaches to architecture, to continue the conversation about masculinity in relation to the design profession. Their valuable knowledge and insights helped to broaden the theoretical framework and defining links to the architectural practice. Also a discussion with an



Podcast: Respons Source: Spotify

Amsterdam based initiative WomenMakeTheCity (WMTC) highlighted the exclusive nature of the design profession and how more inclusive approaches stimulate local engagement.



Local Initiative: WMTC Source: WomenMakeTheCity

Feminism

Social media is a powerful source of information as it is easy accessible. I follow several pages which ighlight relevant topics to the research theme.



Instagram profile: Feminist Collages Amsterdam Source: Instagram



Masculinities

In my experience, discussing topics like gender and masculinity are most of the time far from easy. The theatre show and the photo exhibition explain how liberating it can be to open up the limits of gender. This helps me to further discuss the theme with several people and design alternative public spaces.



Theatre show: Boys Won't Be Boys



Liberation through Photography Source: FOMU Antwerp

Project Location

Gaasperdam

The chosen site for this thesis project is Gaasperdam, a primarily residential neighbourhood in Amsterdam South-East, see (1). I assume the research topic addressed in this thesis is relevant for many cities in the Netherlands, and probably even big parts of Western Europe. Therefore, Gaasperdam can be seen as a case study. The selection of the project location is mainly practical and based on assumptions. Practical by means of COVID-19 restrictions, as in case of a lockdown, fieldwork would still be possible without long travel time. The selection is also based on assumptions that certain urban characteristics are important to the research. These mainly focus on the homogeneous urban plan, car dominance and relative low density housing, see (2).

Gaasperdam will be used as a case study, but it is important to understand that the neighbourhood also has it's own unique characteristics which influence the research results. Therefore, to get a rough image of the neighbourhood, some basic statistical information about the inhabitants is essential. First of all, Gaasperdam stretches over an area of 463 ha and houses 29.710 inhabitants. Those people live in an average household size of 2 which is slightly bigger than the 1,8 in Amsterdam (OIS, 2022).











(2) Impression of public spaces in Gaasperdam Source: Author's own

Problem Field

The research topic and associated problems are relevant and discussed within diverse fields, not primarily within urban design. Therefore, several components are addressed to give a concise overview of the problem field.

Hegemonic Masculinity

In most feminist work, little attention is given to masculinities and masculine spaces (Hooks, 2004; Van Hoven & Hörschelmann, 2005). In this research the concept will be addressed and the lens of hegemonic masculinity is important to understand the complex problem field.

First of all, hegemonic masculinity refers to the most dominant and socially valued form of masculinities. This form relates in Western countries to gender expressions like: courage, confidence, refusal to acknowledge vulnerability and dominance over other masculinities as well as over women (McVittie, 2017; Van Tricht, 2018). This gender norm is demanding hostile and inflexible behaviour of mostly men and resists them to know themselves (Hooks, 2004). This results and maintains traditional gender roles, where men produce and engage in public life and women reproduce and stay within

domestic spheres (Massey, 1994; Spain, 2014). Therefore, to reshape our public spaces and facilitate diverse gender identities we must name and problematise the dominance and authority of hegemonic masculine behaviour in space (Puwar, 2004).

The films: Grease and Billy Elliot illustrate this hegemonic masculine gender identity very well, see (3 & 4). First of all, Danny from Grease only brags about his summer nights while he doesn't dare to express his love for Olivia. Also the film Billy Elliot illustrates the harmful side of hegemonic masculine behaviour, where Billy's father and his brother painfully refuses Billy to join ballet classes, since this is seen as a feminine sport which is inappropriate for boys.

Thanks to socio-economic and political changes, like emancipation of women and queer acknowledgement, harmful traditional male identities have softened (Van Hoven & Hörschelmann, 2005). However the increasing presence of alt-right movements, which attaches great importance to traditional masculinity, jeopardises more fluid notions of masculinity and gender in general (AIVD, 2020).



(3) Billy Elliot Source: Daldry (2000)



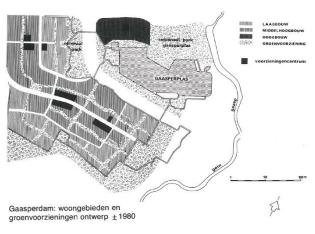
(4) Grease Source: Kleiser (1978)

Modernist Design perspective

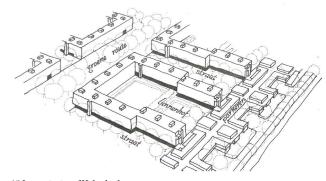
The first lens we use to explore the problem field is the modernist design perspective. This was the main guiding paradigm during the development of Gaasperdam in the late seventies. The era defined itself by rational and functional urban design proposals, see (5) (Hayden, 1980; Spain, 2014).

A period of house scarcity in Amsterdam around the late seventies, was a driving force to built as many houses as fast as possible. These new homes were built in standardised ways to maximise efficiency, see (6) (Marshall, 2009). Therefore, one could argue that these homogenous and standardised neighbourhoods were built with no specific target group in mind (de Mare & Vos, 1993). However, homogeneous urban plans and the separation of residential and labour spaces were spatial interventions to maintain and facilitate the ideal of a nuclear family (Hayden, 1980; Massey, 1994; Spain, 2014).

To be more specific, architects, designers and developers used normalised and mathematical models to built these new neighbourhoods, like Gaasperdam (Hayden, 1980). Modulor from Le Corbusier and Bauentwurfslehre from Ernst Neufort are well known examples, see (7). They have directed the way we shape spaces. But they are not inclusive as they are predominantly based upon a male human body (Spain, 2014; Curatorial Research Collective, n.d.).

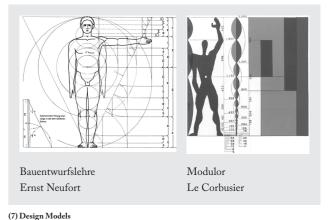


(5) Landuse plan Gaasperdam from +-1980 Source: Hellinga et al. (1985).



(6) Isometric view of Holendrecht

Source: Toelichting op het plan Holendrecht-Zuid-Bijlmer, 1972 from Gemeente Amsterdam (2018)



(7) Design Models Source: Ernst Neufort & Le Corbusier

Heteronormative space

Defining public space as heteronormative is the second lens to explore the problem field. This lens is relevant as many authors, including Fullagar, O'Brien and Lloyd (2019) describe public space as masculine and heterosexual. This conclusion is drawn because especially in modernist neighbourhoods, like Gaasperdam, the separation of residential and labour spaces, see (8 & 9) and the family homes control who and how to live in such places. Alternative lifestyles are mostly impossible to sustain due to time limitations and lack of attractive programme. Feminist scholars therefore call modernist development: a spatial manifestation of a patriarchal society (Hayden, 1980; Valentine, 1989; Spain, 2014).

Moreover control within public space is also maintained via street harassment, as it reinforces the heterosexual relationship as the norm in public space, which highlight the boundaries of belonging (Pain, 1991; Berry et al., 2021). In other words, the heterosexual identity is not an presumption, it is expected (Puwar, 2004; Chambers, 2007). This norm in public space impact people's behaviour and results in segregation.

This exclusion of alternative gender identities also maintain the present and mainstream perspective towards gender (Valentine, 1989; Massey, 1994). Feminist scholars have critiqued this inequality extensively and improvements have been made. But there is a lack of incorporating notions about masculine identities (Van Hoven & Hörschelmann, 2005). As Bell Hooks (2004, p. xiii) states: 'Sexism and sexist exploitation and oppression would not change unless men were also deeply engaged in feminist resistance'.



(8) Shopping centre Reigersbos, Gaasperdam area Source: Stads Archief Amsterdam (1986) from Gemeente Amsterdam (2018)



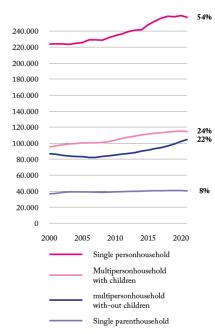
(9) Family homes in Holendrecht-East, Gaasperdam area Source: Stads Archief Amsterdam (unkown) from Gemeente Amsterdam (2018)

Demographic transition

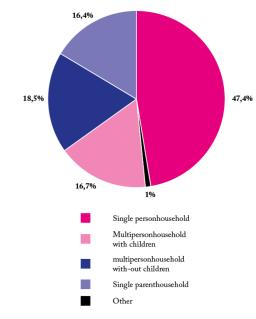
The final lens to describe Gaasperdam is the one of demographic transitions. Gaasperdam developed between 1974 & 1987, which is relatively fast, due to the high amount of housing and necessary infrastructure (Gemeente Amsterdam, 2018). Modernistic design principles were used to accommodate the future middle class families (Spain, 2014). Since the development, the physical environment of the neighbourhood is remarkably unchanged. But many social and political changes have been made and one could question if the built environment is adaptive and flexible enough to facilitate these.

Some important changes which are noticed in Western Europe are: increase of diverse household compositions, with increasing single-person and single-female parent households, increase of age expectancy which mainly entail female elderly, and increase of the multi-ethnic composition of cities (Sanchez de Madariaga, 2016). Moreover, in Amsterdam and throughout the Netherlands, birth rates are reducing and women are having children later and later. The population does still increase but this is mainly the result of immigration from people with a non-western background (OIS, 2021).

The two figures, see (10) & (11), also indicate that households without children and single person households are increasing in Amsterdam. In just 33.1%, children are part of the household (OIS, 2021). Because of these current statistics and shifts in society, the characteristics of the built environment in Gaasperdam, which mainly accommodate families are no longer suiting to facilitate the demographic transitions.

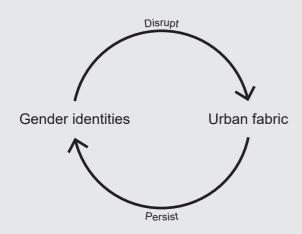


(10) Household division Amsterdam Source: CBS (2021a), visualised by Author



(11) Household division Gaasperdam Source: OIS (2021), visualised by Author

Problem Statement



Public space is normatively coded as masculine and heterosexual, especially in modernist neighbourhoods, like Gaasperdam (Spain, 2014). The **separation of residential and labour spaces** and the homogeneous urban plan controls people's lives. Moreover, modernist development is a spatial manifestation of a patriarchal society, which **maintains the ideal of a nuclear family** (Hayden, 1980; Valentine, 1989; Massey, 1994). To reshape our public spaces and facilitate diverse gender identities we must problematise the dominance and authority of **hostile and inflexible hegemonic masculine behaviour** (Hooks, 2004; Puwar, 2004). Which mostly relates to courage, confidence and refusal to acknowledge vulnerability (McVittie et al., 2017).

The urban fabric of Gaasperdam is remarkably unchanged which persist a diverse appropriation of space. Multiple societal and demographic trends show that **the population of cities is more diverse than ever** which will disrupt the status quo (Sanchez de Madariaga, 2016; OIS, 2021). This raises the question how the urban fabric facilitates people with diverse gender identities to use public space.

Relevance

Societal Relevance

The dominance of particular gender identities in society normalise certain behaviour. One could feel limited to express their gender identity if this is different than what the norm describes. Exclusion, discrimination and harassment are common practises to reaffirm people to the norm (Berry et al., 2021). Thanks to social changes, like women emancipation and queer acknowledgement, progress has been made. But on the contrary, the increasing presence of alt-right movements, which attaches great importance to traditional masculinity, jeopardises more fluid notions of masculinity and gender in general (AIVD, 2020). Thirdly, Gaasperdam is relevant as it is close to Bullewijk & Amstel III which will be transformed to dense urban areas with a high programmatic mix, which attract diverse type of residents (Gemeente Amsterdam, 2021). The question how will we live together is even more relevant to ask at this potentially conflicting site.

This thesis project designs & researches various possibilities to facilitate non-normative behaviour in our built environment, which makes it socially relevant because it further investigates the opportunities of inclusive and just cities.

Scientific Relevance

Within research fields like sociology and urban geography, concepts and notions about gender identities and heteronormativity are discussed. Also, within health studies the impact of gender identities such as hegemonic masculinity is researched. This master thesis translates these sociological and non-spatial insights to space and explicitly questions our current urban environment. The insights are valuable to research fields which focus on spatial issues, such as urban design, urban planning, and architecture, since it offers design principles to reshape our built environment to more gender diverse spaces.

Methodology

Research Aim

During this master thesis, design is a central theme within the project. Therefore it is worthful to explain how I envision the role of design within the project scope. These different ways together with the problem field and problem statement draw the contours of the research aim.



First of all I envision design as a method to critique our built environment and to highlight spatial and non-spatial elements which unconsciously facilitate specific gender identities. By this, I want to address and understand the underlying system of patriarchy within our built environment.



Next to highlighting hidden elements of the status quo, I would like to explore alternative uses of space. Incorporate different perspectives to again understanding how these could be facilitated in space. In the end to elaborate a new perspective towards the city.



The third role of design is impact. After all, I'm an urbanist who's task is to translate urgencies, challenges and ideas to spatial interventions which transform the outdoor space into places used by people. To realise this, detailed space designs are important to communicate alternative ways of public space within cities. Therefore, impact is an important role of design within this thesis.

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The aim of this thesis is to critique our built environment and highlight gender differences in public space to explore various possibilities to facilitate non-normative behaviour in our built environment. This all contributes to more inclusive cities which are safe enough for everybody to express in the way they would like to.

Methodology Framework

The research topic is complex and it is essential to unravel inter-related domains. Therefore, an explorative way of research is essential to research relevant domains simultaneously (Breen, 2002).

Research by Design

To stimulate experimenting across different domains, a research by design approach will be essential to conduct the research. It is therefore important to understand the complexity of such approaches. First of all, design assignments are open-ended, complex and personal. To be able to work in such circumstances, it is essential to make the design process explicit (van Dooren et al., 2014).

Drawings and other research products are ways to make the design process explicit. This stimulates the design process, as it triggers multiple questions to improve the overall design.

The main research question of this thesis is: How can we reshape heteronormative spaces in Gaasperdam to facilitate legitimacy to diverse masculine identities? To be able to answer this question, several sub questions are formulated, each focusing on a specific aspect of the main research question.



How can we reshape heteronormative spaces in Gaasperdam to facilitate legitimacy to diverse masculine identities?



In which way does gender relate to the built environment?



Which spatial elements contribute to heteronormative space in Gaasperdam?



Which demographic changes in Gaasperdam disrupt heteronormativity?



Which subordinate masculinities are present in Gaasperdam?

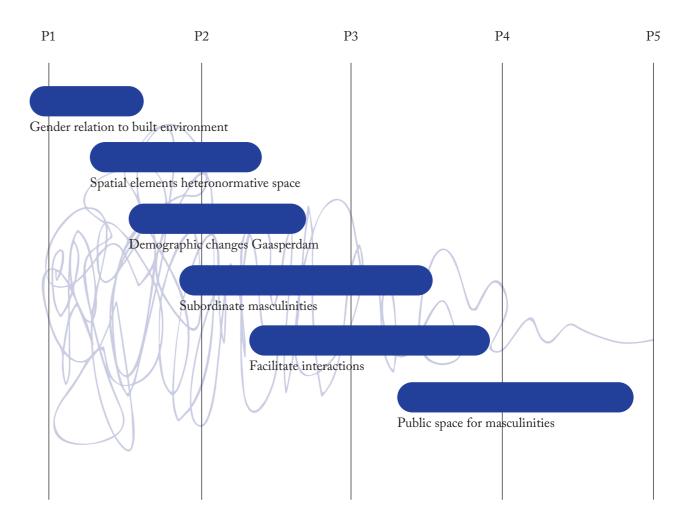


How could public spaces facilitate interactions among masculinities?



How should Gaasperdam develop to facilitate diverse masculinities?

Phasing of the Project



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Regarding the phasing of the project, an explorative and experimenting approach is essential for this design process (Breen, 2002). But to structure the process, different themes are defined which all relate to specific sub research questions. The diagram explains the proposed timeframe for each theme and the duration in which that specific part of research was conducted.

Applied Methods

Spatial Analysis

To understand the spatial dimensions of the site and the problem statement, spatial analysis is an important collection of methods used in this thesis project. The most dominant spatial analysis methods used are plan analysis and GIS analysis, where systematically separate elements are drawn to understand its relation with different domains (Bouma & Bet, 2019).

Personas

A diverse mix of people live and work within cities and the way they appropriate public space is different. To make these differences explicit, personas are a valuable method to do this. This method is commonly used in service-, UX- and product design. But I argue that it can also be very beneficial for urban design. According to Van Boeijen et al. (2014, p. 95) "Personas help you to be aware of and communicate these real-life behaviours, values and needs in your design work.". Moreover it is essential to be explicit for which masculine identity you are designing.

Fieldwork

Cities and spaces are dynamic and the way they are used by people differ. Fieldwork is a valuable and intensive method to understand the use of space by different people. It helps to simultaneously observe, understand, analyse and compare the place which is visited (Bouma & Bet, 2019) Moreover, many other forms of information are dated and maybe not relevant anymore. While doing fieldwork you observe the now.

Literature review

In diverse research fields, people have written about the relevance of gender and masculinities towards their discipline. Within our spatial design research field this is rather limited. Therefore, it is essential to translate these key insights to space and make it useful for our spatial design profession. This review will guide and ground the spatial interventions proposed.

Interviews

To understand specific ideas and perspectives from local stakeholders, interviews are a valuable research method (van Boeijen et al., 2014). During this thesis, multiple interviews are held with diverse stakeholders to get a more elaborated understanding of the topic and local conditions at hand. An overview of these interviews can be found at the Where to start section (p. 10). These insights will be valuable for the research by design process afterwards (Anderson & Jack, 1991).

Research questions

In which way does
gender relate to the built
environment?

- Which spatial elements contribute to heteronormative space in Gaasperdam?
- Which demographic changes in Gaasperdam disrupt heteronormativity?
- Which subordinate masculinities are present in Gaasperdam?
- How could public spaces facilitate interactions among masculinities?
- How should Gaasperdam develop to facilitate diverse masculinities?

Methods

Literature review & Spatial Analysis

Fieldwork & Spatial Analysis

Literature review

Personas & Spatial Analysis

 $\label{eq:continuous} Fieldwork \,\&\, Design \\ Experiments$

Scenarios & Design Experiments

Expected outcome

Theoretical and spatial understanding that gender differences are reflected in our built environment and are not merely social challenges.

Series of maps, which highlight the spatial elements that enhance heteronormativity plus their interrelation.

Drivers of change which could amplify the need for urban renewal and guide future developments.

Designed selection of exiting gender identities in Gaasperdam and their (lack of) spatial appropriation.

Series of spatial interventions that address alternative urban designs which facilitates demographic changes

Several urban designs for different local spaces in Gaasperdam which facilitate diverse masculine gender identities.

Theory

Theoretical Background

This research addresses the relation between the built environment and gender identities, specifically masculine gender identities. To understand and research this complex relation more in depth, several theories from different fields of knowledge are used in this thesis.

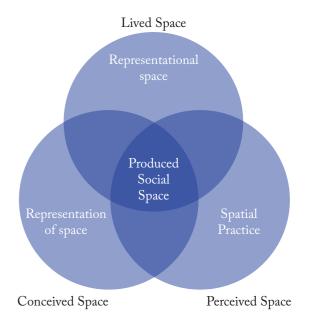
Production of space

The first valuable theory relates to the production of space. Lefebvre (2009) notes that the production of space is dependent on three different angles namely: lived, perceived and conceived, see (12). Lived space is important as it refers to experiences people have while using that space, like your favourite morning walk. Perceived space entails the physical elements of the built environment and lastly the conceived space refers to the conceptualisation of space by urban designers, architects and other people of power, like a spatial vision (Lefebvre, 2009). The lived- and conceived space angle address thinking about space rather than the actual physical space. This explains that space is based on societal values. Moreover, Massey (1994) addresses that thinking about spaces intervenes with the way societies think about gender. Therefore, the built environment is not mainly the result of societal perspectives. It is integral to the production of the societal paradigms.

Present societal norms and gender relations are embedded in the production of space (Spain, 2014). Also Pain (1991) repeats this by addressing that gender differences are created (Perceived space), reflected (Lived space) and reinforced (Conceived space) by spaces. To illustrate this, people around the world, women, girls, and persons identifying across the varied spectrum of gender and

sexuality are often limited to freely access the city and so has its impact on the Lived space (Campbell, 2019). This physical limiting access to spaces also limits the appropriation and expression of one's identity and these two limitations are significantly intertwined (Massey, 1994). The notions about the production of space are highly relevant for the thesis as it illustrates the relationship between societal perspectives and the physical built environment.

To change these gender relations, Berry et al. (2021) argues that design is an important tool to adjust these. This relates to the spatial triad as well, see (12), where design is a tool of planners, designers and people of power shaping the perceived space. But to succeed, changes in the conceived space are essential as well. And these changes could implicate shifts in the design process and stakeholder involvement.



(12) Production of Social Space Source: Lefebvre (2009). Visualised by Author

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Conceptual Framework

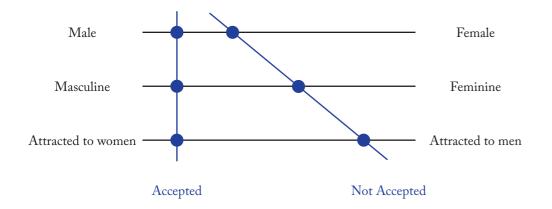
Heteronormativity

We understand that notions about gender and the production of space are strongly related. According to Butler (1999), The most pressing and dominant gender identity is heterosexuality. In general, European societies expect and presupposes heterosexuality as the norm. These norms are explicitly based on the binary framework of male and female. Gender identities not conforming to the norm are limited by this. Heteronormativity in this sense defines itself as the power that heterosexuality has in society (Chambers, 2007).

Individual people continually behave in socially accepted forms, and thus confirm to the existing norms. Butler (1999) refers to this interrelation as the 'heterosexual matrix', where man must behave masculine and woman must behave feminine, see (13). In other words, where sex has the same meaning as gender. However, sex has a different meaning than gender. Sex mainly refers to biological characteristics of people, whereas gender refers

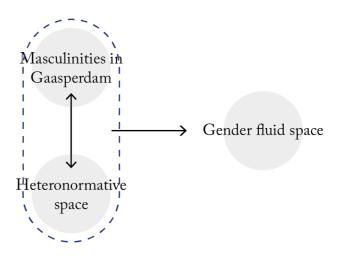
to the social construction of norms, behaviours and roles, which varies from society to society and can change over time (World Health Organisation, 2021). However 'preformativity', which is another concept raised by Butler (1999), explains that people express in ways that is consistent with the role that they identify with. But according to the heterosexual matrix, preforming feminine expressions as a male is socially not accepted. People who do express in the way they like, which is not according to the heterosexual norm are in many cases subordinate and are restricted from every day life. Society retains control of their activities, movements and behaviour is the main reason behind this (Pain, 1991).

Heteronormativity is a relevant notion for this thesis as it reflects societal perspectives in urban development and it highlights that non-normative people are restricted to perform their gender identity.



(13) Heterosexual matrix

Source: Butler (1999). Visualised by Author



(14) Conceptual Framework
Source: Author's own

During the thesis, several methods are used to conduct the research. A literature review is part of this to help position the thesis within the current debate. The concepts and theories that are most important to the research are defined in this conceptual framework. Their interconnections are depicted in the diagram, see (14) and explained further below. The thesis's most important concepts are Heteronormative space, Masculinities and Gender fluid space.

Heteronormative space

Cities and its public spaces are areas in which people constantly negotiate about competing rights, cultures, and identities (Berry et al., 2021). Lefebvre (2009) explains that the people who use certain spaces the most, can be seen as the producers of that space which also means that space reflects the societal norms and gender relations that are present at that specific space (Spain, 2014).

According to Butler (1999), The most dominant gender identity is heterosexuality. Individual people continually behave in the most socially accepted form, and thus

confirm to the existing norms. Society in general expects and presupposes heterosexuality as the norm. Especially in modernist neighbourhoods with its functional and rational urban design, such as Gaasperdam dominate a patriarchal way of living (Hayden, 1980; Spain, 2014).

This hierarchy facilitates social exclusion of different people in public space as well. First of all, street harassment is one way to exclude. The fear of street harassment is very common and therefore reveals the boundaries of belonging in public space (Berry et al., 2021). To avoid such negative experiences, people behave within normative codes, which are masculine and heteronormative (Pain 1991). Valentine (1989, p. 389) even states that street harassment is "a spatial expression of patriarchy". The reason to do so would be to retain control of secondary groups (possibly defined by class, race, age, sex, etc.) in their movements and ability to participate in our society (Pain, 1991).

Masculinities

The second important concept within this conceptual framework addresses masculinity. In most feminist work, little attention is given to masculinity and masculine spaces (Hooks, 2004; Van Hoven & Hörschelmann, 2005). Hegemonic masculinity refers to the most dominant and socially valued form of masculinity. This masculine identity is seen in Western and Westernised societies as the most ideal masculine identity and is associated with courage, confidence, and refusal to acknowledge vulnerability. It also symbolizes dominance over different identities as well as over women (McVittie et al., 2017; Van Tricht, 2018).

This ideal perspective could explain why it is extremely difficult to change the universal standard, because professionals see themselves as being neutral and objective, while it is actually based upon a western and masculine culture (Puwar, 2004). To reshape our public spaces and make them inclusive we must name and problematise the dominance and authority of masculine behaviour in space (Puwar, 2004). Moreover, it becomes spatial when we realize that different bodies do not fit as it is designed by mathematical and diagrammatic forms of a predominantly male human form, like Bauentwurfslehre from Neufort and Modulor from Le Corbusier (Curatorial Research Collective, n.d.).

The lens of hegemonic masculinity is an important one to understand the complex problem. On the other hand, several social and political changes, such as emancipation of women and queer acknowledgement have opened the limiting traditional male identities a bit which allows non-male people to enter different roles and jobs in society (Puwar, 2004). This shows that younger generations of male bodies reject traditional gender norms or simply cannot fit to these (Van Hoven &

Hörschelmann, 2005). This shift destabilises the binary thinking of gender identities which creates awareness about the multiplicity of gender identities such as female masculinity or male femininity. Therefore, we should not talk about masculinity as one universal identity, but rather talk about multiple masculinities (Gorman-Murray & Hopkins, 2014).

On the contrary, the increasing pressence of altright movements, which attaches great importance to traditional masculinity, jeopardises more fluid notions of masculinity and gender in general (AIVD, 2020). These two important shifts exposes the necessity to further investigate how we will live together.

Gender fluid space

The third concept used in this conceptual framework presents itself as a solution to various challenges in Gaasperdam. Gaasperdam is a post-war neighbourhood which can be called a heteronormative environment, as it is developed by a modernistic design approach with rational and functional urban design principles which represent expressions of patriarchy (Spain, 2014). Since the development, the neighbourhood is remarkably unchanged. But many social and political changes have been made since then which urge the built environment to better respond to gender specific needs. First of all, single person households increase to 47%. Secondly, single parent households are 16% in Gaasperdam, compared to 8% average in Amsterdam. Thirdly, increasing age expectancy which mainly entail female elderly and fourthly increasing multi-ethnic composition of cities (Sanchez de Madariaga, 2016; OIS, 2021).

Because of these shifts in society, the characteristics (nuclear family model) of the neighbourhood, which were very attractive at that time, are no longer able to adopt new gender realities (Spain, 2014). Therefore, to redesign Gaasperdam non-exclusive, we have to apply a gendered lens which enables to deconstruct hegemonic masculine assumptions in space and highlights the exclusion of people who identify themselves differently (Van Hoven & Hörschelmann, 2005). Today, non-normative desires are often relegated to other spaces and not visible for bigger publics. For example, oppression of queer and black people resulted in active underground scenes (Berry et al., 2021). Moreover, people who dare to express their non-traditional identity mostly move to dense urban cores which offer walkable, mixed-use programme and diverse inhabitants. They escape post-war neighbourhoods and the ideal of a family model (Hayden, 1980; Spain, 2014).

Therefore, we must disrupt the conditions that facilitate exclusive living conditions and transform spaces to spaces which allows more fluid gender identities (Berry et al., 2021). Exploring alternative ways to use public space which incorporates desires from diverse gender identities in contrast to the dominant patriarchal definition of current spaces in Gaasperdam is necessary. Moreover, it is essential to discuss how we want to live together in the future. Sarkis (2021) addressed this in his statement for the Biennale Architettura 2021, "We need a new spatial contract [...] The architectural resilience of these spaces may have adjusted to our changing needs over time, but by now they have reached the limits of their elasticity."

Spatial Research

Historical development

From a historical perspective Gaasperdam is quite interesting as it was part of the urban expansion in Amsterdam south east from the 1960's. Moreover, Gaasperdam was initially called: Zuid-Bijlmer. The north part of the urban expansion, the Bijlmermeer, was realised between 1965 and 1974 with high-rise flats as the main building block. Gaasperdam, was also largely envisioned in high-rise flats. However, many negative experiences in the Bijlmermeer led to the firm decision around 1971 to abandon high-rise as much as possible and to return to medium-rise housing with space for low-rise neighbourhoods on the edges, see (15). Even the name Zuid-Bijlmer was never used to disconnect from the 'failed' Bijlmermeer (Gemeente Amsterdam, 2018).

Gaasperdam, implemented in phases between 1974-1987, became a testing ground for new residential neighbourhoods with car-free streets, lots of greenery and varied types of housing, while retaining the elevated mobility infrastructures (Gemeente Amsterdam, 2018).









(15) Development of Gaasperd Source: Kadaster (2021)

Gender in space

In this first part of research the following question will be central: In which way does gender relate to the built environment?

Boundaries of belonging

Public space is never neutral and therefore serves people differently. Street harassment for example is one way to exclude. The fear of street harassment is very common and therefore reveals the boundaries of belonging in public space (Berry et al., 2021). To avoid such negative experiences, people behave within normative codes, which are masculine and heteronormative (Pain 1991). Map (16) illustrate that the commonly used areas in Gaasperdam

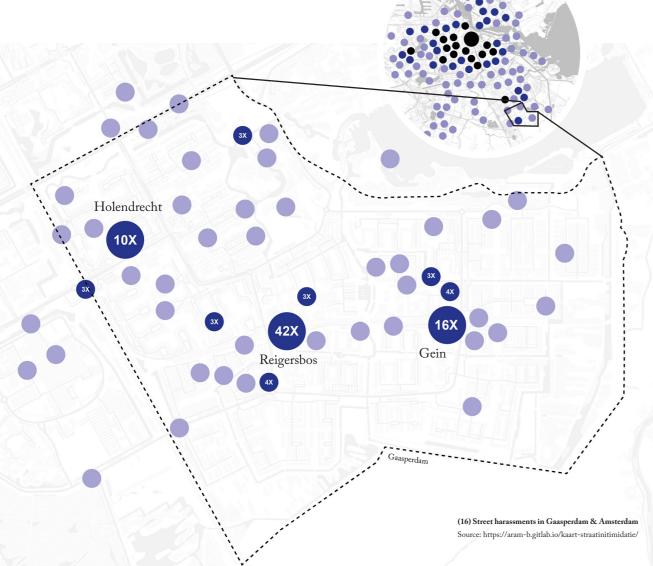
like the retail centres: Holendrecht, Reigersbos & Gein are also spaces where street harassment is most reported. This is the case in Amsterdam in general as well. The crowded inner city is much more affected by street harassment than the urban expansion areas. One should expect that this limits people to express their non normative gender identity. However, queer people have appropriated this inner city to an attractive and safe environment. Therefore, this research illustrates an intereseting paradox.

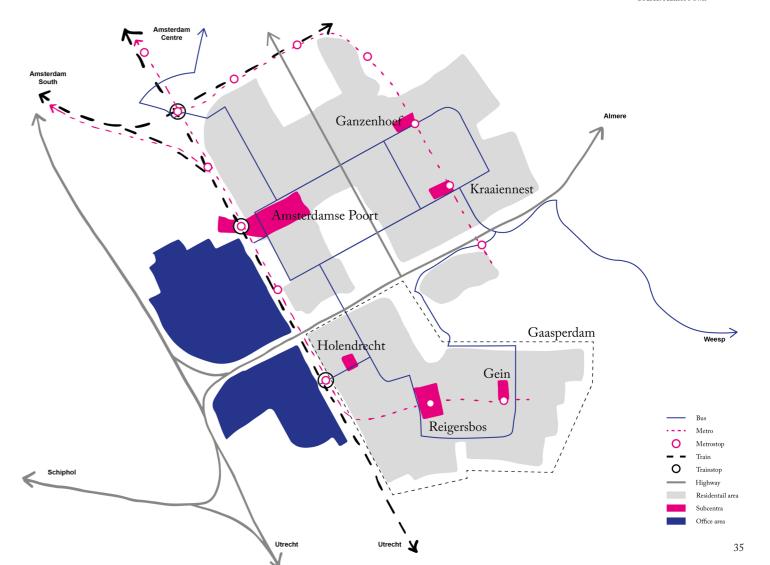
Separated urban planning

Amsterdam South-East is designed with a functional perspective, which clearly shows a spatial separation between functions, see (17). The businesses are concentrated and located close to important car roads, whereas the domestic functions, like schools and supermarkets are located in local shopping centres. This highlights the spatial distance between traditional men's and women's roles in the city (Spain, 2014), Moreover, this spatial distance also negatively affects people who have to/ like to combine a working life and simultaneously taking care of their children. Furthermore, this urban plan is almost impossible to be used by a single person household.



(17) Spatial separation in Amsterdam South East
Source: Author's own





Gender normative programme

Apart from large distances between functions in Gaasperdam, the associated jobs are stereotypical marked as female. Map (18) illustrates that the dominant labour options in Gaasperdam relate to the education & health care sector. A more specified overview of functions for each shopping centre, see (19) confirms this. The hypothesis can be made that labour within the neighbourhood is mainly carried out by women and men mainly work outside the neighbourhood.

What is interesting as well, is to discover where the unofficial programme is located, like the hang-out places of teenagers or the BBQ spots in summer. These relate to the lived spaces as described by Lefebvre (2009). Further research will try to map these unofficial programme as well.



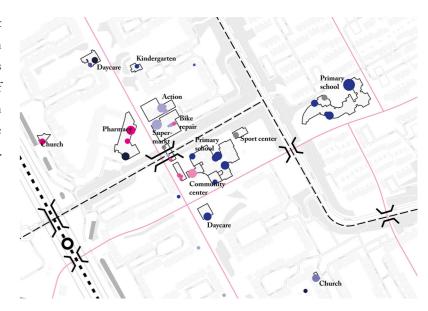


(18) Function map Gaasperdam
Source: Functiekaart, Gemeente Amsterdam. Visualised by Author



Holendrecht

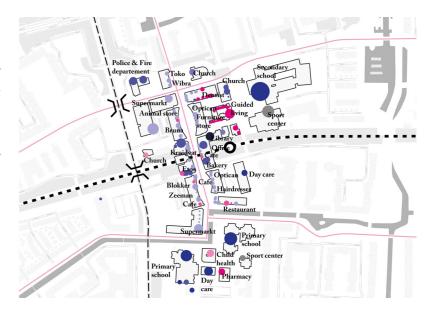
The most north subcentrum in Gaasperdam is Holendrecht. What is interesting here is that the orientation of the shops are in the direction of the main cycle road trough the green open space and the close proximity to a train station.



Reigersbos

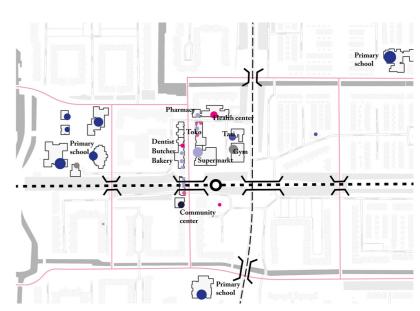
The biggest and central subcentrum in Gaasperdam is called Reigersbos.

one can find essential and cultural programme here, like a library and diverse supermarkts, like a Jumbo and multiple oriental supermarkets.



Gein

The most east subcentrum is called Gein, It is quite small and one can find basic functions like a backery and a supermarket. Moreover, appartments are built on top of the shops.



19) Subcentra in Gaasperdam

Source: Functiekaart, Gemeente Amsterdam. Visualised by Author

Heteronormative space

Car mobility

The car infrastructure is oriented to leave the neighbourhood as fast as possible and highlights the modernist design principles that different mobility systems are separated, see (20). The regional roads are built on 'Dreven', which means that they are elevated from the ground. The local car roads are nearly all dead-end and bring you to a parking field, see (20) The last meters have to be done by foot. These insights illustrate the detachment from the local neighbourhood life.



0 100 250 500m

(20) Car infrastructure Gaasperdam
Source: Functiekaart, Gemeente Amsterdam. Visualised by Author

Cycle network

The car infrastructure is oriented outwards. However, the bicycle network is strong within the neighbourhood and trips to one of the shopping centres is done quite easily by bike, see (21). To illustrate, this mobility sytem makes it quite inefficient for a working father to bring his children to school and thereafter going to his work. Furthermore, the space surrounding the cycle roads are less attractive and they guide you through quiet, green areas with little social control, see (21).



0 100 250 500m

(21) Cycle infrastructure Gaasperda Source: Functiekaart, Gemeente Amsterdam, Visualised by Auth





Walk ability

As addressed in the car dominance section, Dreven are built to separate the car and slow traffic mobility flows. This however impacts the walk ability in the neighbourhood as you need a gap in the dreef to enter another part of the neighbourhood. (22) Highlights that big parts of Gaasperdam are not accessible to walk within 10 minutes/ 500m from the three shopping areas. Spain (2014) addresses the importance of walkability to attract a diverse group of people, which allows to express diverse gender identities.

Moreover, if you take into account that shopping centres Holendrecht & Gein only include very basic functions, all residents of Gaasperdam are dependent on Reigersbos for particular functions like: hairdressers, cafe's or dugstores.

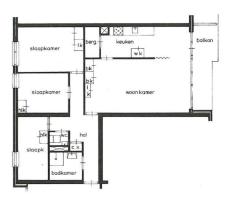
0 100 250 500m

Source: Functiekaart Gemeente Amsterdam Visualised by Author

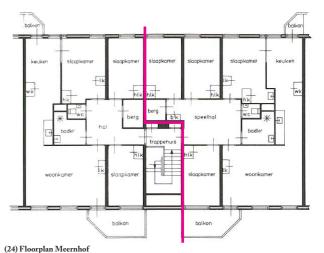
Family normative housing

Houses, from the modernist era were designed and built with strong values and ideas about a nuclear family (Hayden, 1980). As these homes still exist, they replicate old values and the implicit oppression of certain bodies (Sarkis, 2021). In Gaasperdam, at least 65% of the houses were given four or more rooms, with 90 m² being the minimum for a good family home (Gemeente Amsterdam, 2018). Map (27) points out the housing typologies and highlights how segregated these typologies are.

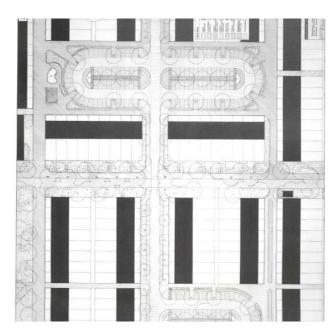
The floorplans are clearly designed for families. 3 or more bedrooms for multiple children, see (23) & (24). In the Meernhof plan, the hallway is even made bigger which functions as a room to play. In other parts of Gaasperdam, namely Gein and Reigersbos, single family row housing is developed with private gardens and 2 to 3 storeys, see (25) & (26).



(23) Floorplan Wamelstraat
Source: Zanstra Architecten from Gemeente Amsterdam (2018)



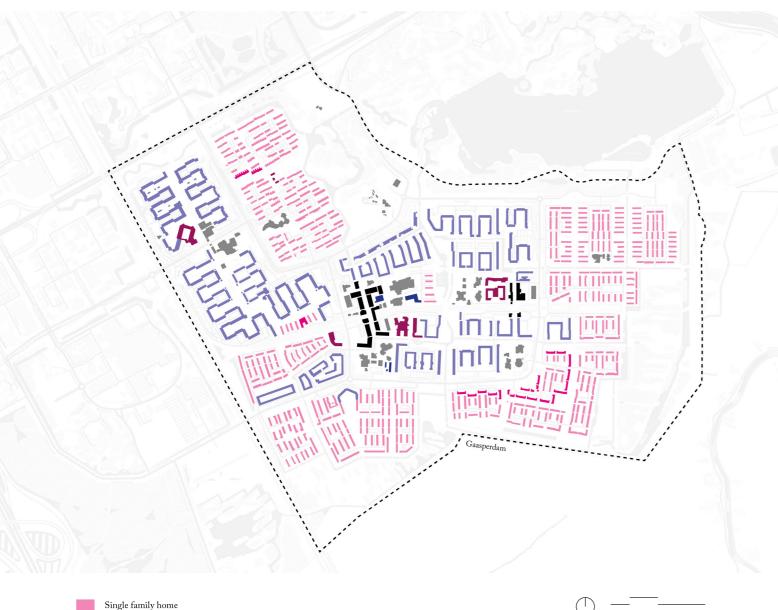
Source: Van Gool Architecten from Gemeente Amsterdam (2018)



(25) Urban design plan Reigersbos 4 Source: Stads Archief Amsterdam (1981) from Gemeente Amsterdam (2018)



(26) Birdeye view Holendrecht Source: Stads Archief Amsterdam (unkown) from Gemeente Amsterdam (2018)



Duplex house

Elderly home

Non housing

Special healthcare house Tenement flat, active plint

(27) Housing Typologies Gaasperdam Source: Visualised by Author

Single family home



Duplex home



Tenement flat



Tenement flat, active plint



Special healthcare house

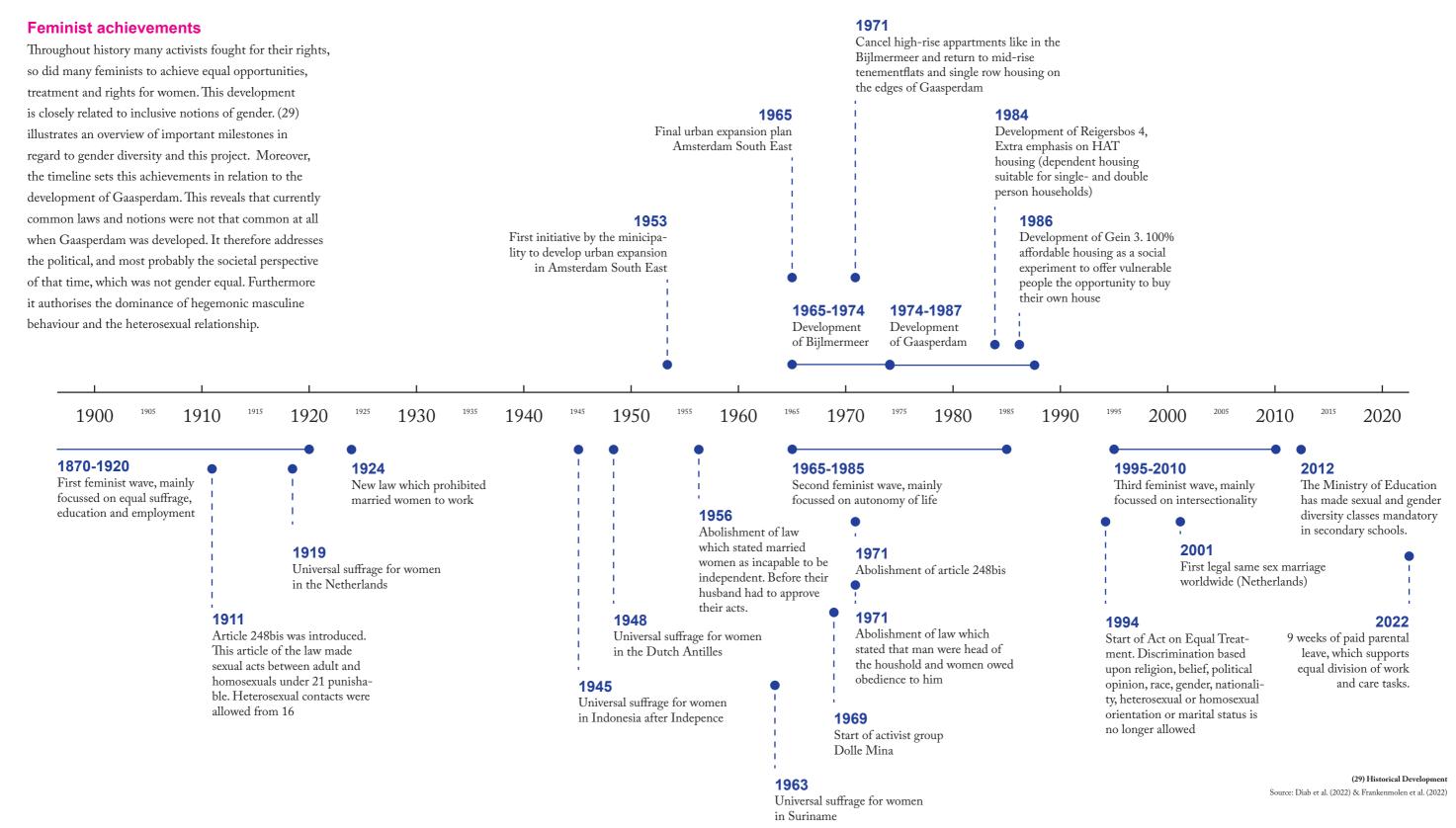


(28) Housing Typologies Gaasperdam Source: Author's own

Elderly home



Societal change



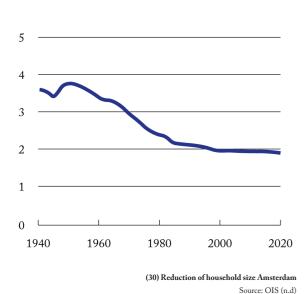
Demographic situation

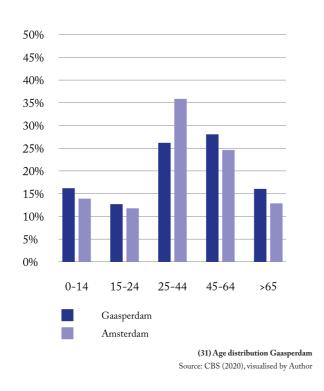
The timeline which addressed societal changes already indicates that our current perspectives is not aligned anymore with the perspectives during the development of Gaasperdam. Next to these changes, more demographic changes has taken place as well which are also reasons to criticise the built environment of Gaasperdam.

First of all the development of household sizes, see (30) explain why in Gaasperdam huge amounts of family houses are built. However since then, these numbers have reduced significantly, which make this typology less necessary, see (34). At the moment most of the households are composed from an individual person. This mainly relates to the increase of elderly in Gaasperdam and the Netherlands in general, see (31). The reduction of household size is also explained by the reduction of birth rates, as women are having less children and at an older age (Sanchez de Madariaga, 2016). The population does still increase but this is mainly the result of immigration (OIS, 2021).

More in general, the inhabitants of the Netherlands are becoming more culturally diverse. Especially in cities people with a with a migration background increase, see (32). Gaasperdam is even more diverse, which is mostly the result of the independence of Suriname in 1975 and the white flight of Dutch families from the Bijlmermeer to suburban cities in other parts of the Netherlands. To conclude the spaces of Gaasperdam were not initially designed for this culturally diverse resident. Therefore one could argue if the spaces of Gaasperdam facilitate this diversity of people well.

Not primarily a demographic change, but youths of Gaasperdam and Amsterdam South East in general have weaker possibilities to good education and jobs in comparison to other young adults in Amsterdam, see (33) (Alliantie Zuidoost, 2021). This maintains the inequality of opportunities for people in Gaasperdam.







Subordinate masculinities

In the previous research parts, it is made clear that the current built environment serves people differently and that this urban space is designed by patriarchal design paradigms which do not facilitate the current residents of Gaasperdam. In this environment, the multitude of masculine identities are subordinate as well (Puwar, 2004; Hooks, 2004). To reshape our public spaces and facilitate diverse masculinities we must name and problematise the dominance and authority of hegemonic masculine behaviour in space (Puwar, 2004). Therefore the following research question is essential to this part of research: Which subordinate masculinities are present in Gaasperdam?

As discussed in the methodology chapter, personas are a valuable design tool to represent diverse behaviours and identities (Van Boeijen et al., 2014). Four different personas are shaped and are a representation of a group of people who resemble a specific masculine gender identity. Moreover, these personas do not cover the full diversity of masculinities in Gaasperdam, as there are endless possibilities and a gender identity is a fluid concept which can change over time and place (Massey, 1994). The personas are based upon fieldwork observations, newspaper articles, insights from Alliantie Zuidoost (2020) and demographic data which is presented earlier. AT5 (2020) elaborates for example about the invisibility of LGBT+ people is Amsterdam South East and the lack of safe spaces. The factual information from several sources inspired to design and compose interesting and contrasting representations of masculinities.



Jayden 15 / Male

MAVO student Single-parent family Apartment Reigersbos

"Together with my friends I like to chill at the Reigersbos centre. It is the only place where we're not expelled"

Yo, Jayden here. I'm in my final year of MAVO. I hope to start the Music Producer study next year. That's why I'm DJ'ing a bit with my friends after school. Besides this, we are mostly chilling at the shopping centre Reigersbos. It is the only place where people sort of accept us hanging around. It can be busy, so there is always something to check out. For me it is also a way to be away from home. I love my mom. But my brother, Jamal is super annoying and is bullying me. I also can not really escape to my dad, as he lives at the Kraaiennest but with his new family.



Defano 38 / Male

Chef in IKEA Restaurant Couple with children Single family home Gein

"I love to spend time with my family. But it is not always easy to take care of them when I have to work"

Hi, I'm Defano and father of my son Darryl. Together with my girlfriend Charon, we are living in Gein and enjoying a nice family life. When I was a child, I didn't see my father that much. He was mostly working when I was home from school. I try to do this differently. As a chef at IKEA Amsterdam, I'm quite flexible with my working hours and moreover it's just 10 minutes by car. We try to work out a way that we both have time to take care for Darryl. In the weekends when the weather is sunny, I love to host a BBQ at the Gaasperplas.



Robin 31 / Male

Store manager Decathlon Single-person household Apartment Holendrecht-West

"There is hardly any space in Gaasperdam where I feel safe enough to meet queer people"

Hey there, I'm Robin. I was born and raised in South-East and like to live here. Most of my family lives in the Bijlmer, so I can visit them quite easily. During the day I'm working in the Decathlon at the Bijlmer Arena, which is just two metro stops away from my home in Holendrecht-West. In my spare time, I like to hang out in the city centre. That is also the place where I met a nice man which I'm dating at the moment. Unfortunately, he lives all the way in West, which is nearly an hour to travel by public transport.

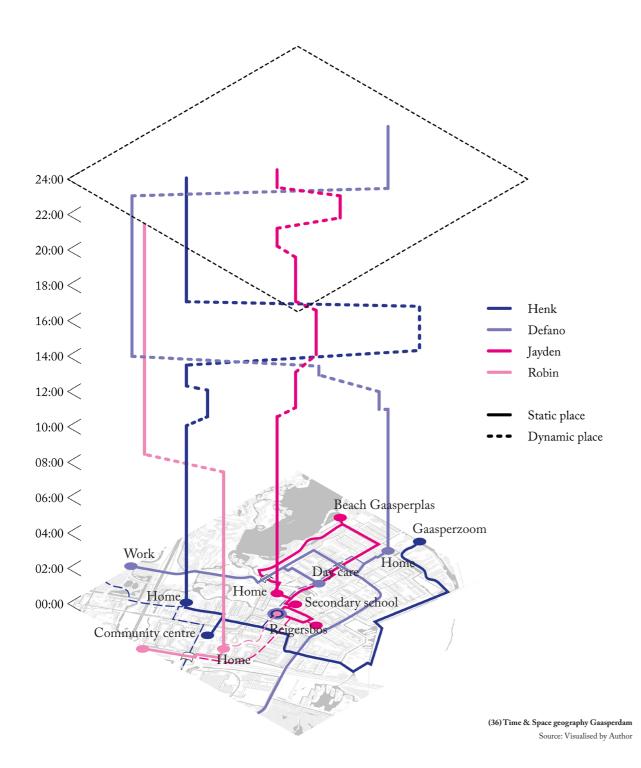


Henk 72 / Male

Retired
Couple without children
Single family home
Holendrecht-Oost

"I really appreciate the calmness and natural atmosphere of our neighbourhood"

Hello, my name is Henk. I totally feel at home at Gaasperdam. We already live here since the construction period in 1980. At the moment our children live in Zaandam and Almere. It was to expensive for them to buy a house here. It would be amazing if one of them could move in to our home. But there are not enough elderly housing which appeals us. I'm retired now, but I used to be a plumber working for the social housing corporation here. My wife and I love to bike around the Gaasperplas or the Vinkeveense Plassen.



Time & Space geography

Four different personas are introduced which will be a guiding element of design interventions (p. 72). By means of time-space geography, originally defined by Hägerstrand, the different path ways of the four personas can be visualised, see (36). The overall image shows that people hardly interact with each other. They use different spaces and are active across different times which means that people are less confronted with people with diverse live patterns. A more general conclusion is shared in literature as well. People of different cultural backgrounds and social status are less likely to meet in public space (Loopmans et al., 2011).

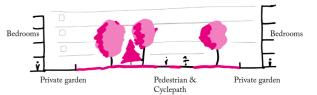
This does not attribute to more awareness and legitimacy for diverse masculinities. Moreover the image also highlights that people need to leave to neighbourhood in order to work or enjoy a social life. This adds more value to the mobility system, but also these are heavily separated, which limits the share of space.

Informal Interaction space

Besides the fact that different personas hardly use the same spaces when they are away from home. The spatial opportunities are not sufficient as well. The neighbourhood is designed with a great emphasis on car mobility and private spaces. (38) highlights, that within specific parts of Gaasperdam the majority of open space is privately used. Examples are: single family housing and fenced private gardens. Most of the non-private space is also reserved for car parking. This leaves hardly any space left to stimulate interaction and facilitate shared and collective programme which stimulates the spatial appropriation of diverse gender identities (Hayden, 1980).

Moreover, (37) highlights that the housing typologies including floorplans create a clear border between the active and the passive sides. Although the front side is programmed with a playground, the transition between private and public space is still quite rigid and not personal.

Active side Living room Porch entrance & parking Playground Bike parking entrance & Front Active side Balcony Living room Porch entrance & Porch entrance & Front



Passive side
(37) Active / Passive side
Source: Author's own



(38) Private vs. Public space Gaasperdan

Source: Functiekaart, Gemeente Amsterdam. Visualised by Author



Local Interactions

From the neighbourhood scale, we understood that different people hardly meet each other in public spaces. The following maps investigate which local interactions can take place around the homes of the personas.

Jayden

(39) illustrates the direct surrounding of Jayden's home. A little amount of elements are found which could facilitate an interaction. The most promising element is a private front gardens. However, these are hardly used by local residents. Furthermore, the entrances are small and quite hidden. On the contrary, one can enjoy great anonymity in this local environment.



0 5 10 45

(39) Home environment Jayer

Source: Author's O

Robin

Robin lives in Holendrecht West. His entrance of the flat is small and intimate. The balconies, private gardens and the collective playground surrounding this courtyard are a positive environment to facilitate small interactions with neighbours. The passive side is made more attractive by means of a collective vegetable garden, see (40). This seems an important element which facilitate valuable interactions between neighbours.



(?) Home environment Robin Source: Author's Own

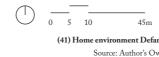
(40) Home environment Robin



Defano

Defano enjoys a family life and the surrounding public space facilitates this in detail, see (41). Multiple playgrounds are close to his home. The floor plan of the houses supports social control at the public space, since the kitchen always looks at the playground. Also small garden furniture indicates that people appropriate public space which is beneficial to facilitate interactions between neighbours. When walking around, you can not experience anonymity, since you feel being watched by local residents.





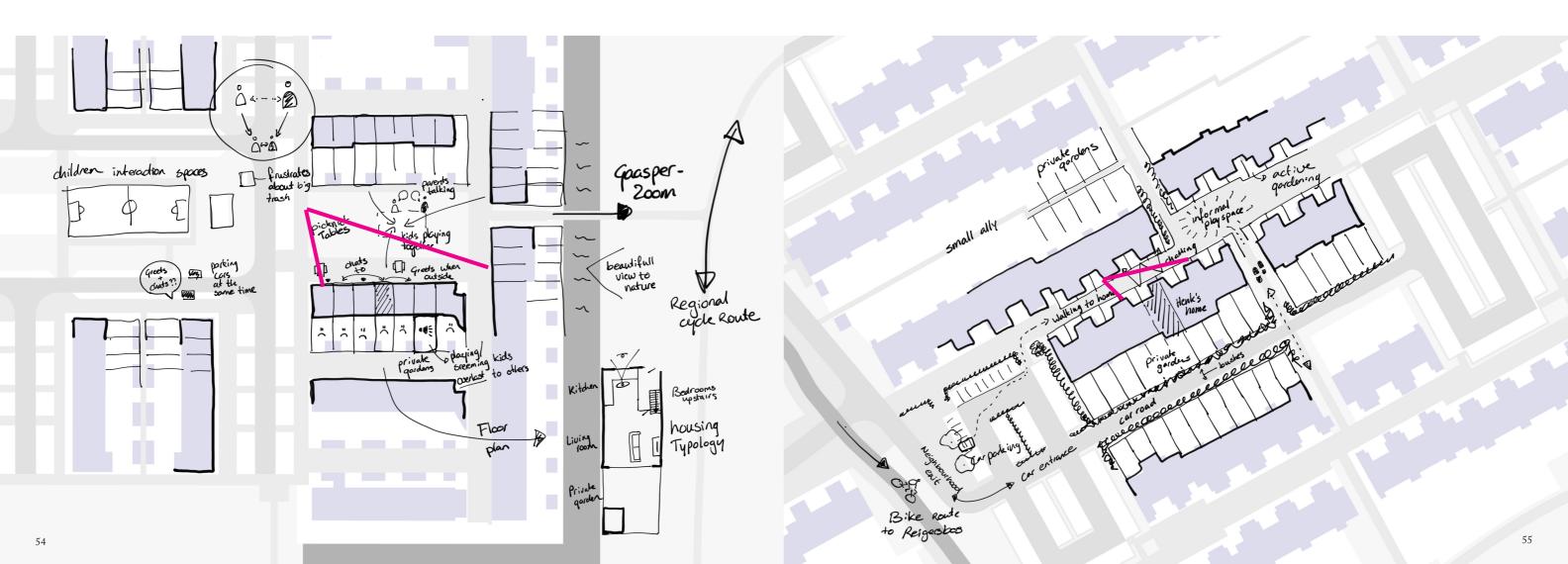
Henk

Henk lives in Holendrecht East which are solely row houses with private front and back gardens. Small streets force some sort of interaction if you pass a neighbour. Also the orientation of the entrance door behind the shed indicates a distance between the private house and the public street, see (42).



0 5 10 45m

(42) Home environment He



Research Insights

The previous research elements provided interesting insights which are essential to the design interventions later. In the following chapter, more research questions will be answered which are more related to the design of the space. These six insights will be guiding instruments when propose alternative design concepts which would foster more qualitative interactions and opportunities to define their live patterns more diverse and individual to enhance one's autonomy of life.



Separation of programme

Amsterdam South-East in general is designed with a functional perspective, which clearly shows a spatial separation between residential, labour and leisure areas. The spatial distance created negatively impacts the residents in their daily lives.



Family normative housing

Besides the different housing typology across Gaasperdam, they are mostly designed by the values and ideas about a nuclear family. This means that old values and the implicit oppression of certain bodies continues.



Reproductive programme

The functions which are located in Gaasperdam are mainly care related. One can find schools, several health care services like general practitioners and dentists but also multiple day care centres. The availability of different labour options is limited in Gaasperdam. Maker industries or offices are hardly located here. For labour options like these, one should travel longer to for example Bullewijk, Amsterdam City Centre or other locations outside Gaasperdam.



Normative day pattern

Diverse masculinities hardly interact with each other. They use different spaces and are active across different times which means that people are less confronted with people with diverse live patterns.



Opposite mobility infrastructures

The car infrastructure is oriented to leave the neighbourhood as fast as possible and highlights the detachment from the local neighbourhood life. This in combination with the monofunctional planning argument, means that cars are most efficient to use when you work. On the other hand, the bicycle infrastructure is a strong network within the neighbourhood. Trips to schools, health care facilities and the shopping centres are done quite easily.



Weak interaction spaces

The neighbourhood is designed with a great emphasis on functionality and private spaces. Moreover, most of the non-private space is also reserved for car parking. This leaves hardly any space left to stimulate interaction and facilitate shared and collective programme which stimulates the spatial appropriation of diverse gender identities.

Design Explorations

Empowering Interactions

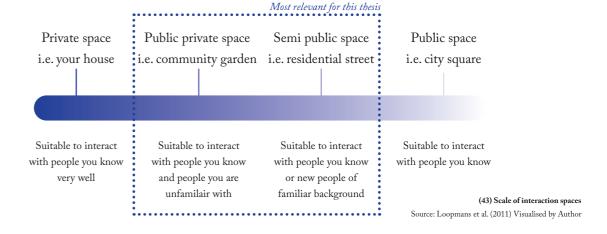
We understand that interactions between different masculinities are essential but are hardly happening. Therefore the following research question is essential in this part: How could public spaces facilitate interactions among masculinities? The overall aim is to create more legitimacy for diverse masculinities. Interactions which empower the individual are considered valuable to achieve this goal.

Space for Interaction

To be able to design spaces which facilitates interaction, it firstly important to understand how different masculinities could interact with each other and which spaces are most suitable to facilitate this interaction.

An important requirement proposed by Loopmans et al. (2011) is that the space should provide different groups equal access. If there is a dominant group, other groups will most likely not be active in this environment. An overview of different space types and suitable interactions is illustrated in (43). This explains that private spaces are not suitable to foster empowering interactions between different masculinities, because one enters a territory of someone else. On the other hand, public spaces are not that suitable either, because they normally lack familiar

qualities (Loopmans et al., 2011). If the two ends of a spectrum are not suitable for empowering interactions, then a more in between space should be researched. The first one is called: Semi-public space, which refers to public spaces which are more claimed, like a residential street. These spaces are valuable to interact with new people. But these interactions mostly happen between people of the same class or identity (Loopmans et al., 2011). A Second space to research is the public private space, which refers to spaces of common interest, like a community garden or a sport centre. People who visit these spaces have a common interest rather than being part of the same social class or expressing the same masculinity (Loopmans, et al., 2011). These private public spaces are therefore very valuable to facilitate empowering interactions between diverse masculinities. The design, which will be elaborated on further, emphasises this need for more spaces of common interest.



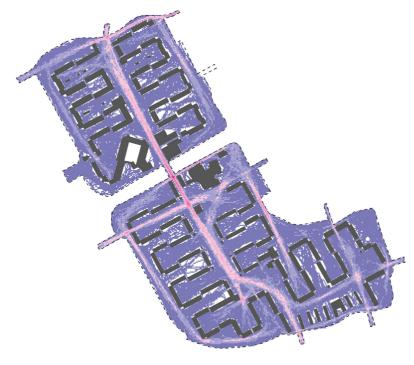
Routing

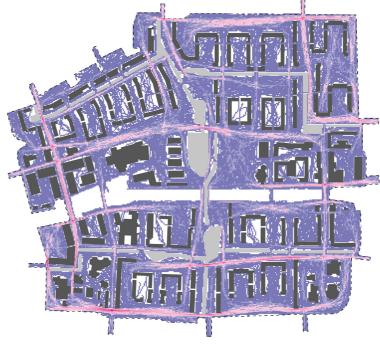
It is interesting to discover the spaces which people currently use the most. For this reason, a Space Syntax analysis, using DepthmapX, has been carried out to model the spaces which are most logic to use by local residents, see (44). These common used spaces are highlighted in pink and also explain us which spaces are interesting locations for spatial interventions, since interaction among masculinities is most easy to achieve.

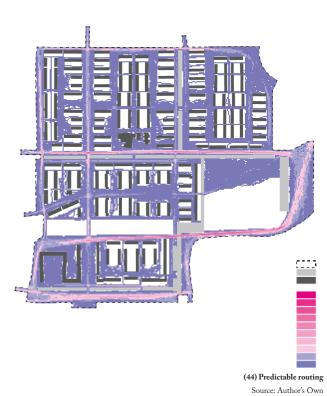
Another important insight from this computer model is that the commonly used spaces overlap with the slow traffic network which includes bike paths and side walks. The spaces used for car infrastructure are of less interest

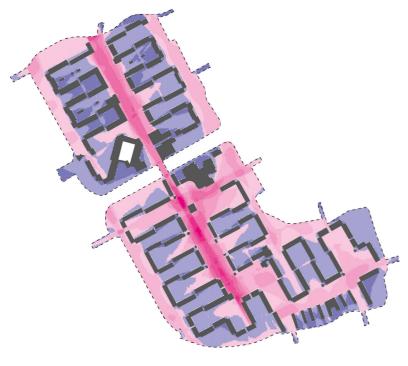
Visibility

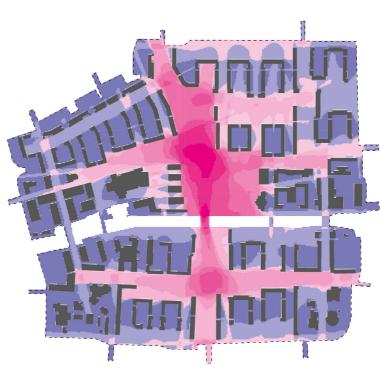
Next to an agent based modelling in space syntax, also a visual graph analysis has been done to identity key locations and spaces which are most interesting for social activities, as they are well visible and thus more attractive, see (45) (van Nes, 2020). Moreover, the results show that the inner spaces between the tenement flats have a low visibility score which makes them more intimate but also decreases the level of social control. Earlier research discussed that these spaces are not programmed well and that the architectural plan of the houses does not support social control either. As the spaces are more intimate, it offers opportunities for local residents to build qualitative relations. But these have to be designed well, which will be addressed later in the research.

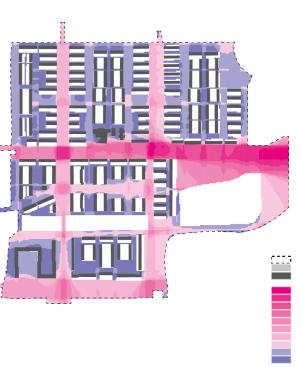












0 50 125 250m

(45) Visibility analysis

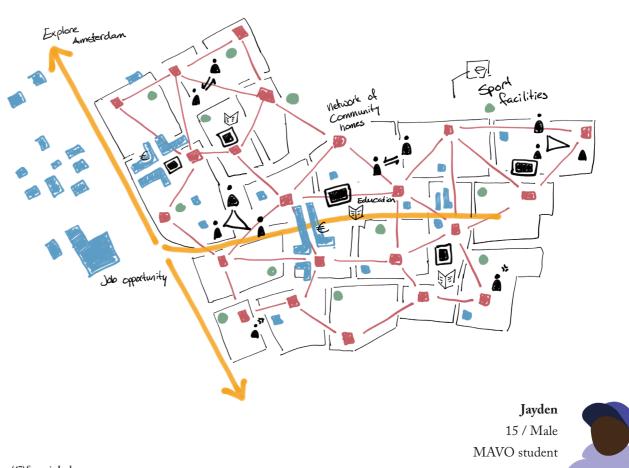
Personal scenario's for Gaasperdam

To facilitate interactions in public space between different personas, it is required that public space facilitates the individual needs of personas at first. One should feel safe and supported enough to engage in public life with others. Therefore, for each persona, a scenario has been designed to explore the needs and wishes of the individual. These scenarios also address the fact that spaces are shaped according to certain values and needs. Therefore, it is a choice how our public spaces are designed.

Defano: Mixed use interaction spaces

The first scenario is made for Defano, see (46). The neighbourhood makes it easy to combine multiple tasks, like care taking, working and recreation. Moreover, multiple co-housing initiatives are there to share more with neighbours. Apart from housing needs, the quality of the public space is also important. For example high quality playgrounds to interact with his children are there. These are also safe enough that his children can access them individually. Moreover, multiple BBQ locations are planned which increase recreation opportunities and decrease nuisance towards and from neighbours.





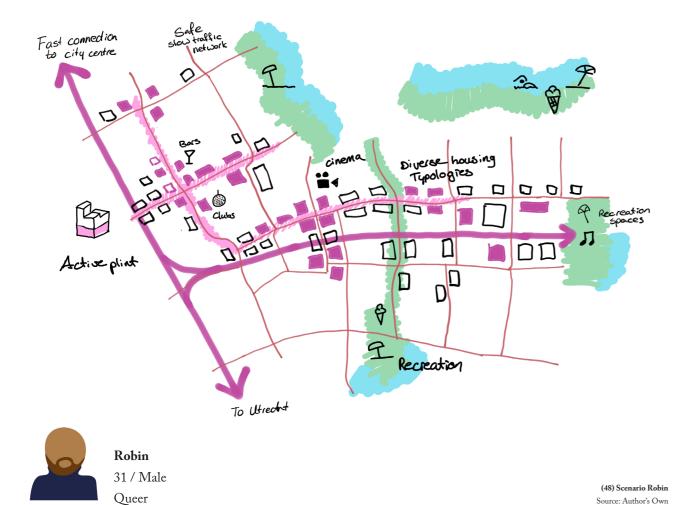
(47) Scenario Jayden Source: Author's Own

Place to count on

The second scenario is made for Jayden, see (47). For Jayden, it is very important to feel supported in Gaasperdam. For example multiple indoor and outdoor spaces to meet with friends are very valuable to build stronger relationships with them. But also spaces where he can focus on his home work are essential to feel supported. Moreover, sport facilities would be essential, because they make him feel better, mentally & physically. Also he is old enough to have a small job to be more independent.



Youngsterdam, Amsterdam South I Source: Swazoom Welzijn, 2022



Discovering places

The third scenario is made for Robin, see (48). He is used to spaces which do not facilitate him. But in his scenario, he could go to multiple places which are empowering queer people and therefore safe to explore. A bar or club would be amazing, as it would be a nice and easy way to meet new people. Also, he would like to see that the diversity of Amsterdam South East is expressed in cultural programme & events. It would also be a way for him to learn and discover more about the many cultures present here. Besides, queer empowering programme, the street should also change in a way that queer people feel confident to use them. Active plints during day & night are important interventions.



Pride Walk Source: Pride Amsterdam, 2022

Nature neighbourhood

The final scenario is made for Henk, see (49). Henk feels at home in Gaasperdam and want to live here the rest of his life. But this means that there should be more elderly housing opportunities. Preferably not individual flats where he could feel lonely. But more collective housing concepts where he can enjoy his retirement and work together with fellow residents. In a vegetable garden for example. Moreover, he already enjoys the bicycle routes around Gaasperdam. But they are quite simple and boring to cycle trough. It would be a great improvement if these would become more biodiverse and supportive to the natural landscape surrounding Gaasperdam. This also increases the amount of birds to watch.



Natural bicycle routes Source: Natuurmonumenten, 202



(49) Scenario Henk



(50) Brasapark Source: Gemeente Amsterdam, 2021c

(50) Vreeswijkpad ource: Gemeente Amsterdam, 2022b



Brasapark

Holendrecht



Current Developments

Next to the designed scenarios for the 4 personas, it is also relevant to know which plans are already proposed by the municipality and to reflect upon them in terms of this thesis objective. To gather this knowledge, I have talked to the urban designer of Gaasperdam and the project developer of Gaasperdam. Both working for the Municipality of Amsterdam.

Development Proposals Gaasperdam

Within Gaasperdam, recent redevelopment proposals are made which aim to impact the current challenges of the neighbourhood, namely: housing shortage of youth & elderly and lack of public services, see (50). Of the four ongoing projects, only Brasapark & Vreeswijkpad are already under construction (Gemeente Amsterdam, 2022). The plans for Holendrecht & Reigersbos are still proposals but could in this way be an inspiring resource to reflect upon while proposing alternative solutions. Moreover the several projects align well with the slow traffic network which increase the potential of a main development axis along this infrastructure.

Amsterdam 2050

First of all, the municipality defined several neighbourhoods in Amsterdam which are more vulnerable and therefore prioritised to be improved. Holendrecht & Reigersbos are also defined as such, which means that more financial support is available to realise spatial interventions. These interventions should of course aim to improve the quality of life (Gemeente Amsterdam, 2021).

Moreover, in the new structural vision, Gemeente Amsterdam (2021) defines Amsterdam South East as an important area to redevelop neighbourhoods and transform current mono functional business areas like Bullewijk & Amstel III. However, Gaasperdam is left quite unchanged, which further increases the separation between the two sides of the rail road. To bridge the two ares, one key intervention location is Station area Holendrecht. Gemeente Amsterdam (2021) clearly explains that due to optimal accessibility, station areas are extremely suitable for work locations, as many employees can reach these locations by public transport. Also an opportunity exists to link the development to the knowlegde area at hospital (AUMC). An higher concentration of work opportunities and the integration of care facilities are beneficial for the local residents of Gaasperdam and to the facilitation of diverse gender identities.

Another proposed strategy is to redevelop the elevated car routes to pleasant street spaces with possibilities to densify (Gemeente Amsterdam, 2021). To reflect upon this proposal, an important insight from the spatial research is that the bicycle infrastructure is a strong local network in the neighbourhood which has potential to serve as the development backbone. Therefore the design proposal of this research ignores the proposal to densify along the car routes.

Vreeswijkpad

Reigersbos



(50) Centrum Holendrecht Source: Gemeente Amsterdam, 2021b

(50) Reigersbos development visualisation Source: Gemeente Amsterdam, 2022

Metropolitan Relevance

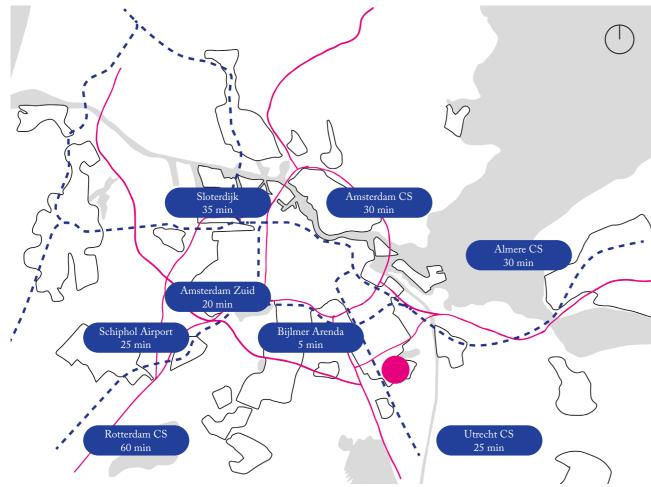
Accessibility

Gaasperdam was developed during a period of a huge housing crisis in Amsterdam as a reaction to the densely populated neighbourhoods of Amsterdam. The urban expansion in South East provided a calm and natural way of living in high quality housing (Gemeente Amsterdam, 2018). The paradigm behind urban expansion neighbourhoods focusses on the dependence of the inner city centre of Amsterdam.

At the moment this paradigm is changed, since metropolitan regions are much more relevant to react upon. As illustrated in (51), Gaasperdam is located centrally between important locations in the Metropolitan Region Amsterdam (MRA) which are accessible by public transport.

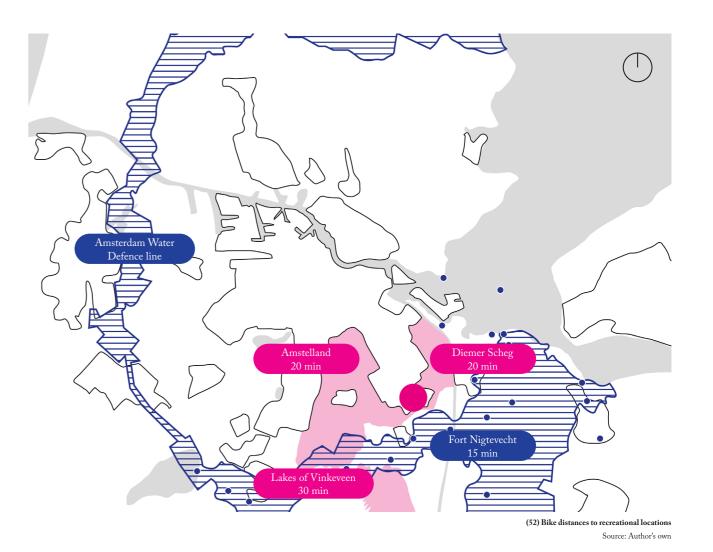
Recreational value

Gaasperdam is most far located from the inner city which also means that it is close to non urban environments. As illustrated in (52), Gaasperdam is close to valuable recreation locations, like the Recreation area Amstelland and the Dutch Water Defence line. These locations are easy accessible within relatively short bike trips.



(51) Train distances to metropolitan destinations

Source: Author's own



Development urgencies

From the different scenario maps, development plans and visions of the municipality, one overview of development urgencies can be defined which are a guiding instrument while proposing spatial intervetions in Gaasperdam.

Programme

Increase communal & commercial driven programme which fosters interaction between people and flourishes individual needs

Communal

- Facilitate homework assistant places
- Facilitate community services
- Facilitate places where one can feel at home
- Develop spaces to interact with friends
- Increase sport facilities
- Develop community makerspaces

Commercial

- Maintain daycare facilities near schools
- Develop nightlife attractive spaces, like bars
- Develop places to meet new people
- Facilitate cultural events which highlights diversity
- Maintain accessible care facilities

Housing

Develop housing to facilitate diverse identities and which realises a diverse programmatic mix

- Develop diverse housing typologies
- Develop high quality housing for elderly
- Develop collective housing opportunities

Public Space

Create high quality public spaces which facilitates interaction and offers opportunities to ease out.

- Activate the homogeneous street environment
- Develop high quality playgrounds
- Increase BBQ spaces in recreation areas
- Increase ecological structures in the neighbourhood
- Increase biodiversity of green spaces

Work

Increase job opportunities in collaboration with education services for local and regional employees and scholars.

- Increase job opportunities nearby
- Integrate care/education functions in work areas
- Increase job opportunities near education places

Mobility

Strengthen local mobility networks and increase connectivity to neighbouring areas.

- Maintain mobility connections to city centre
- Increase attractiveness bicycle network
- Maintain parking facilities near shopping centres

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- Increase visibility to/from slow traffic network

Design

Vision

From the multiple research insights, design explorations and development urgencies a vision is proposed which should steer the development of Gaasperdam towards a neighbourhood which creates legitimacy towards diverse gender identities.

To work towards this vision, one should understand that the posed problem is complex and interrelated in multiple scales of intervention. To elaborate upon this complexity, the vision is divided in five different elements, see (53). Each element will be discussed in the next pages. Moreover, the spatial interventions proposed will most likely lead to unfamiliar situation or even conflicts between diverse masculinities. But these may not intimidate responsible actors to facilitate the needs of all marginalised groups instead of continuing to facilitate the dominant hegemonic masculine and heterosexual group only. Being passive and continuing maybe seems to be the most easy option. But it is far from just and inclusive. Creating legitimacy for diverse gender identities will ask for conflicts and resistance, but it is simply not fair to accept our current situation.

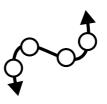
1. Part of a network



4. Coherent development axis



2. Connected to neighbouring areas



5. Spaces for interaction

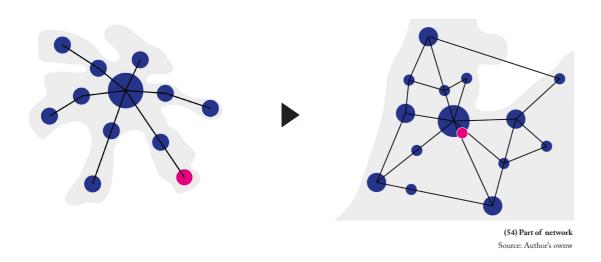


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3. Diverse neighbourhood types



(53) Vision elements Source: Author's own



Part of a network

The development of Gaasperdam should be understood from a regional network perspective instead of a local urban expansion improvement, see (54). The central location of Gaasperdam offers various possibilities to serve an important role in today's urban environment. Multiple mobility infrastructures, like train & metro connections, car roads and bicycle routes provide Gaasperdam great accessibility towards diverse parts of the MRA. Moreover, these infrastructures also provide Gaasperdam the elements to radically densify the area to a mixed-use urban core with multiple work locations and an interesting programmatic mix to facilitate diverse masculinities.

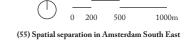
Furthermore, the proximity to valuable recreation areas makes Gaasperdam an interesting location to develop quite some housing to provide many people the possibility to enjoy these recreational areas close to their home.

Also, the integration of nature inclusive interventions in Gaasperdam is more interesting, since important ecological structures are nearby.

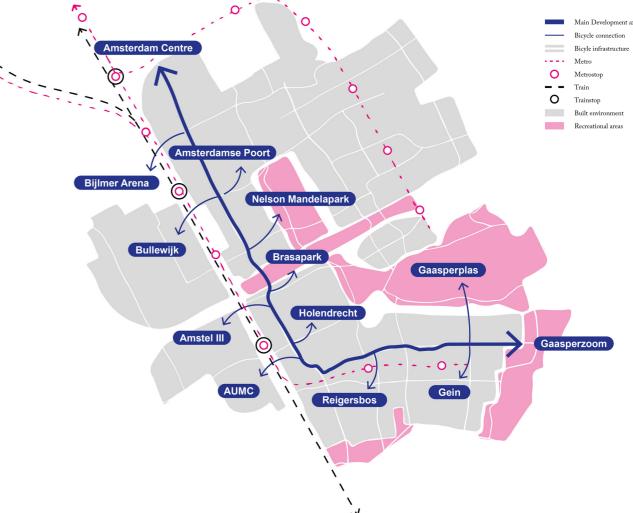
Connected to neighbouring areas

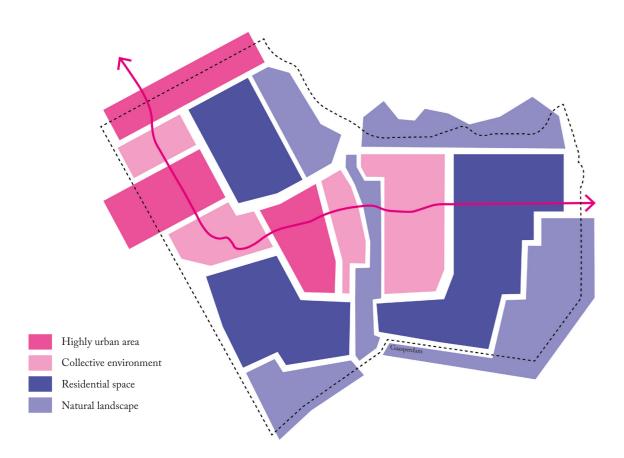
It is beneficial for all residents and users of Gaasperdam if the neighbourhood becomes more embedded within the metropolitan region. But is also very important that Gaasperdam strengthens its relation to neighbouring areas in Amsterdam South East as well, see (55). A key element in the urban environment in South East is the availability of a strong bicycle network throughout the district. Unfortunately, this network is not that pleasant to move through due to simple and dense vegetation, little social control and lack of programme.

A upgraded bicycle network connects to important areas like: the hospital AUMC, shopping centre Amsterdamse Poort, development locations Bullewijk & Amstel III and recreation areas Gaasperzoom, Gaasperplas, Brasa- & Nelson Mandela Park. Connecting to these locations is important to facilitate recreational, economic and cultural needs.



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Diverse neighbourhood types

A neighbourhood which is welcoming different gender identities does not necessarily mean that every space is inviting to all identities. This vision emphasises that diversity of spaces is essential to facilitate diverse masculinities. Therefore local areas are characterised according to a specific space identity, see (56). The type of space identity depends on the current type of build environment, dominant housing typology and proximity to existing mixed use areas.

On the other hand, a design solution which offers each identity it's own space is also not beneficial, since this would lead to segregation and lack of acceptance to others. Therefore, a main development axis of Gaasperdam will cross multiple spaces throughout Gaasperdam to connect each type of area to another.

0 100 250 500m (56) Space identities Gaasperdam Source: Author's own

Coherent development axis

The bicycle network is well organised. However, most of these spaces are uncomfortable to cycle through, as simply vegetated and widespread, see (57). But what is interesting is that many functions in Gaasperdam are connected to this dominant bicycle network. To improve the urban space as well, extra housing, economic & community programme are planned which attract non-family households which restores the balance of household types. Moreover, extra diverse houses allow for more programme which can facilitate diverse users. Most of this development will be centred along the most interesting bicycle path, see (58).



(57) Cycle road through Holendrecht Source: Author's own

0 100 250 500m

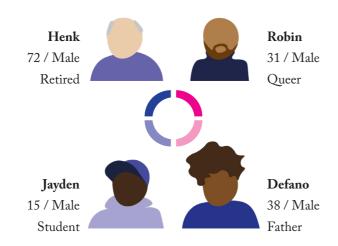
(58) Proposed spatial interventions Gaasperdan



Spaces for interaction

The development axis will not be a homogeneous development throughout the neighbourhood of Gaasperdam, see (60). Multiple types of spaces along this route and throughout Gaasperdam will facilitate diverse needs, which means they will attract diverse users. A good balance between individual and collective programme is essential to realise more legitimacy for diverse masculinties.

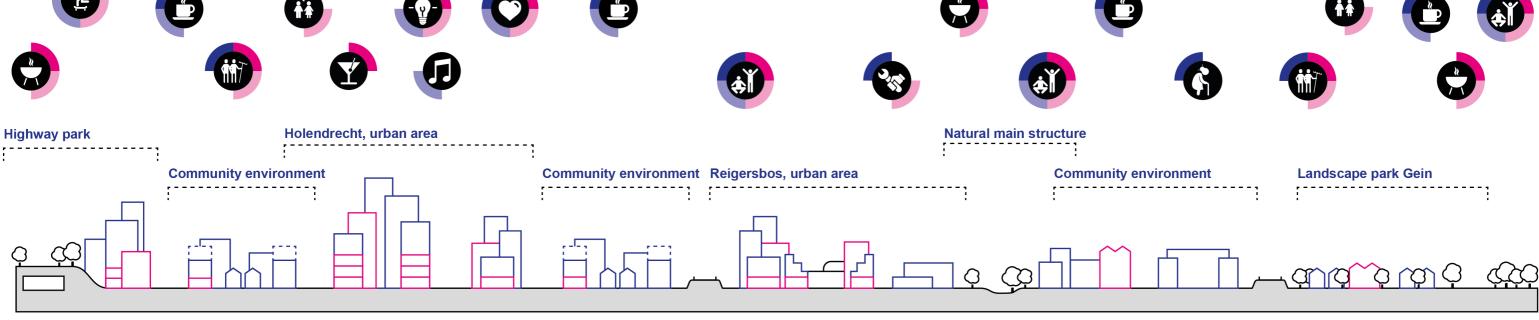
To work on this challenge spatially, specific programme is proposed to facilitate individual needs. But which sometimes is also a individual need of someone else, see (59). A common interest is found which is a possibility of a valuable interaction. The goal is thereafter not to force these interaction. But to facilitate a shared space for diverse masculinities.





(60) Spaces of interaction along development axis

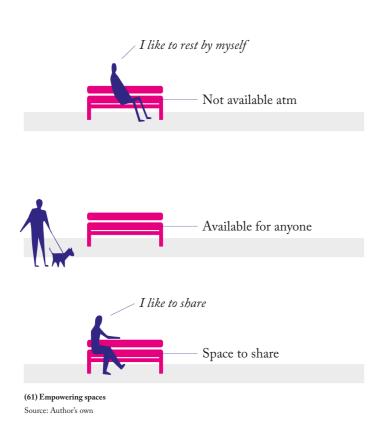
Source: Author's own



Public space for Masculinities

Cities and its public spaces are areas in which people constantly negotiate about competing rights, cultures, and identities (Berry et al., 2021). But this negotiation does not necessarily need to result in negative interactions and aversion. Interactions between different masculinities are crucial to achieve more legitimacy and awareness of the diverse world of gender identities. Because those interactions show you a different world view/perspective than what you are familiar to. However, it should never be overwhelming. Which makes it very important that there is a right balance between personal and collective space. In this way different public spaces can empower individual masculinities. Thereafter, it should be the urban designer to shape the environment in a way which facilitates interactions among masculinities.

An important remark about the concept of empowering spaces is that this does not necessarily need to be a different space then the personal space. For example, a bench across the street can be an amazing spot to take a rest by yourself. But it is also a space which will be used by several others, see (61). And it has the potential to facilitate interactions between different users, which makes it an empowering space as well. To conclude the concepts are dynamic and not static.



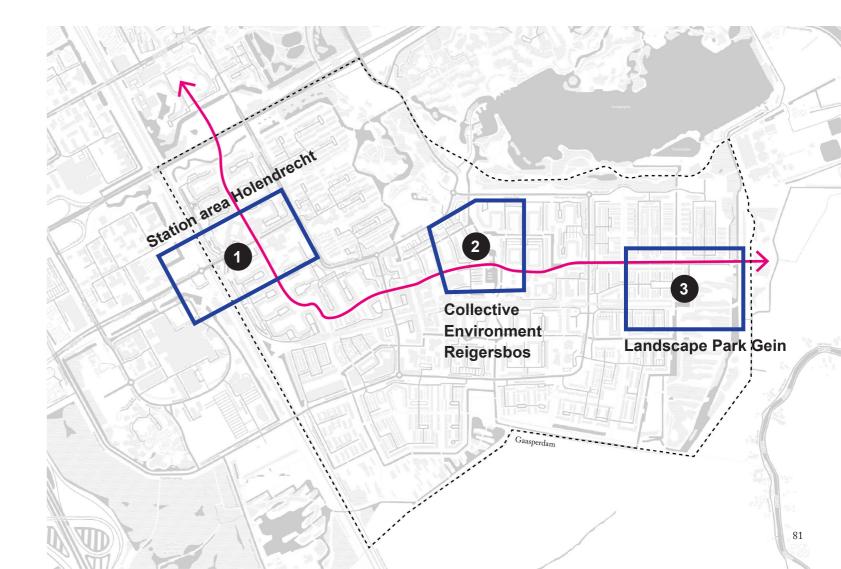
Case study areas

The strategic section elaborated on earlier, distinguished several spaces where diverse masculinities could appropriate space. (62) highlights 3 different local spaces for which more detailed public spaces designs are proposed. In the design process special attention is given to the different interactions possible between different personas and how spatial design interventions could create legitimacy for diverse masculinities.

To be specific, the first area: Station area Holendrecht will, be a dense mixed-use urban environment, which serves and celebrates the full diversity of South East.

The second area: Collective Environment Reigersbos, aims to facilitate a diverse mix of residents to build resilient social communities. Finally, Landscape Park Gein connects the natural landschape of Gaasperdam with a biodiverse and ecological residential neighbourhood. More elaborated design interventions will be addressed in the next pages.

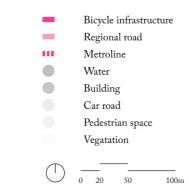




Station area Holendrecht

The station area of Holendrecht will be an urban dense and mixed-use environment which makes it possible to programme diverse functions which facilitates diverse masculinities. At the moment the area is well connected by high quality bicycle infrastructure, a regional car road, train connection and metroline to Amsterdam centre, see (63).

Different spatial interventions are necessary to change the current situation, see (64). This overview also indicates which stakeholders are most important to have on board during the redevelopment.



(63) Current situation: Collective Environment Reigersbos Source: Visualised by Author



Affordable housing in diverse typologies

- 1. Upgrade & transform homogeneous tenement flats
- 2. Develop elderly friendly housing
- 3. Develop youth housing
- 4. Develop co-housing

Accessibility to labour space

- 1. Develop office spaces
- 2. Facilitate high-tech maker industries
- 3. Increase collaborations between local schools and the AUMC
- 4. Improve local & regional connectivity by public transport

Community services

- 1. Facilitate multiple community centres
- 2. Develop a library
- 3. Increase education facilities
- 4. Create hangout spots for youth

Diverse leisure opportunities

- 1. Programme multiple bars/restaurants
- 2. Increase out- & indoor sport facilities
- 3. Increase cultural event spaces

 $\left(64\right)$ Spatial interventions and their responsible actor

Source: Author's own

Responsible actor

- Housing corporations
- Health care institutions
- Municipality
- CPO's
- Project developers
- Municipality & Makerindustries
- Schools & AUMC
- MRA
- Housing corporations
- Municipality
- Municipality & Schools
- Municipality
- Local entrepeneurs
- Municipality
- Municipality & Cultural institutions

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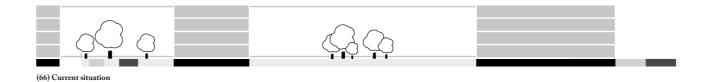


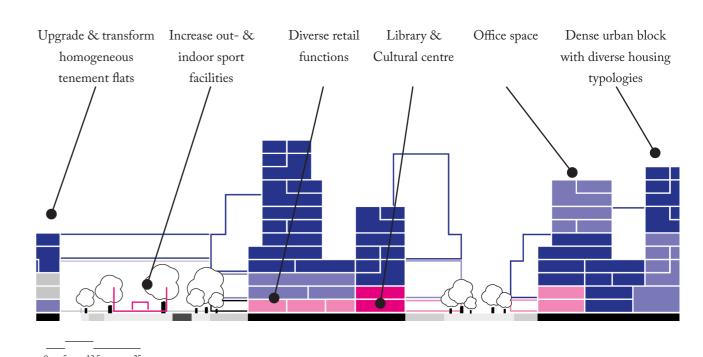
Programme

Source: Visualised by Author

Station are Holendrecht will change from a mainly residential area to an area which facilitates diverse masculinities. Important interventions focus on facilitating different workspaces and adding several cultural and leisure functions, see (65). Also, some outdated tenement flats will be demolished to create space for high density urban blocks which offer diverse housing opportunities. Tenement flats which will stay will be upgraded by adding two extra layers, modified housing typologies and incorporated spaces for non-housing functions, like office spaces for example, see (66).

Furthermore, this station area will be the area which bridges to the new development area Bullewijk & Amstel III on the other side of the train track. Diverse & specific programme will facilitate the needs of singular masculinities. But there are also key functions like: a library, bars, education services and a cultural centre which empowers the interaction between multiple masculinities. Moreover, different masculinities will use different programme. But they still use the same spaces to move trough, which is a first important step to create more legitimacy.





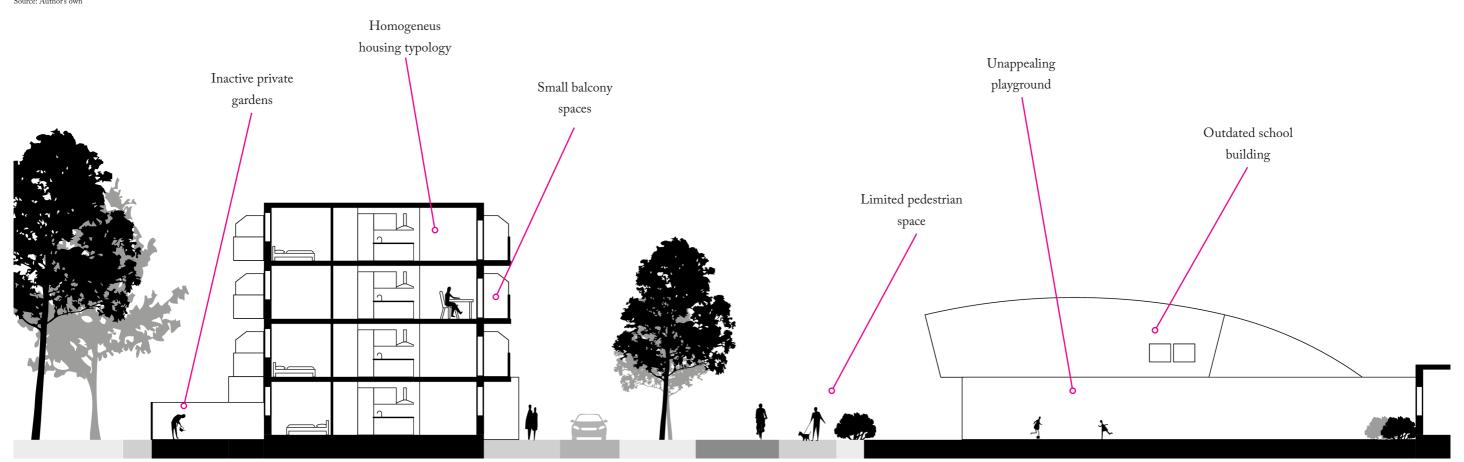
(66) Section AA: Programmatic mix in Holendrecht

Source: Visualised by Author

Active zone

As addressed earlier in the research part, the interactions happening in the Holendrecht area are limited. The Meernhof street is used as an example to illustrate the specific conditions of the Holendrecht area. The current situation of this street highlights elements which limit empowering interactions, see (67). The most important element are the homogeneous tenement flat and the school area which needs to be upgraded.

(67) Section BB': Current situation Meernhof Source: Author's own

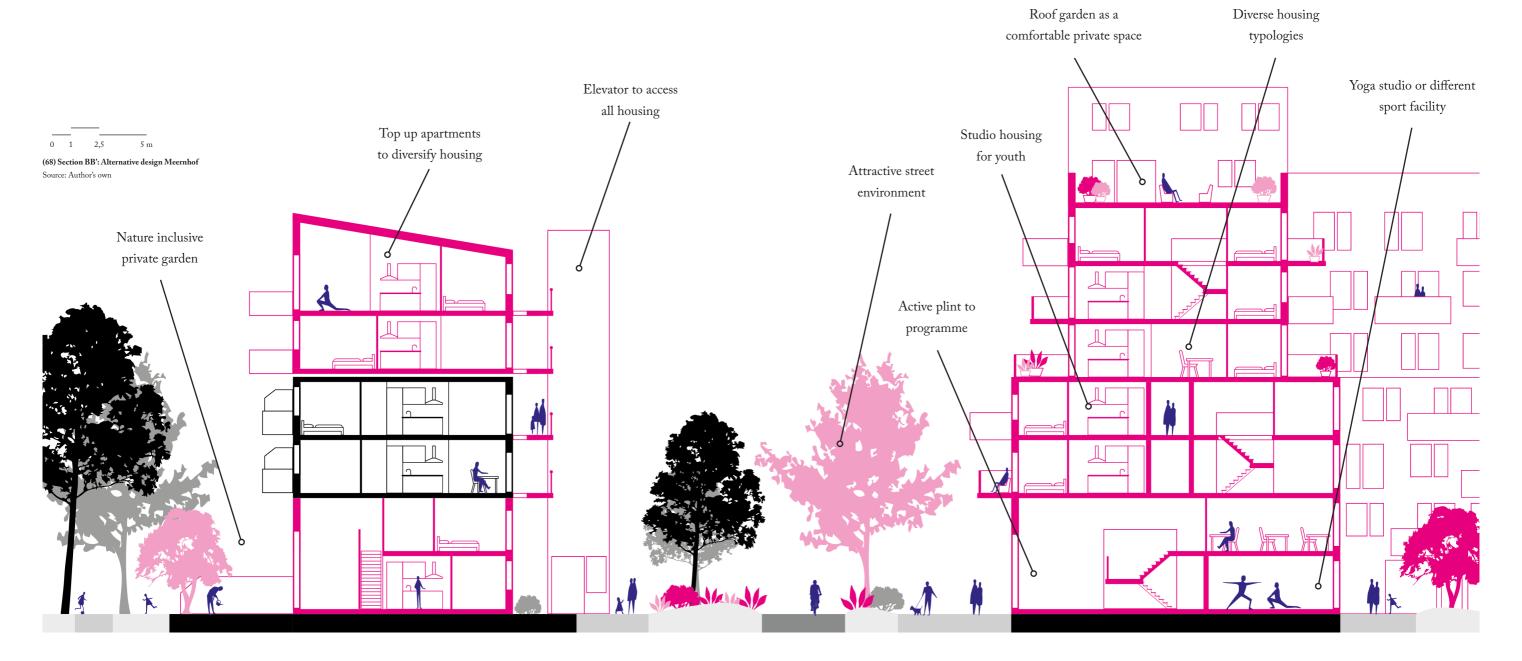


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To illustrate the redevelopment of the Holendrecht area, a transformed street section of the Meernhof, see (68), illustrates the interventions which are necessary to facilitate diverse masculinities. First of all, the tenement flats will be transformed and upgraded. Extra housing layers will be added to the roof. The plint of the tenement flats will change from a blind and unattractive wall to an interactive and pleasant facade which hosts diverse functions, like: retail locations, office spaces and community services. Secondly, a dense urban block is developed which creates an integrated solution to embed

housing together with work oriented programme, like retail and office space. The school which used to be here can be housed in this same urban block.

Furthermore, this area will facilitate diverse masculinities and welcomes all. This will most likely result in unfamiliar situations or even conflicts between different masculinities. However, these conflicts are very necessary to create more legitimacy for a diverse range of gender identities.



Experience

The main square of Holendrecht, see (69) is not a pleasant place to be. The montages, see (70) illustrate how this place can be redeveloped to facilitate diverse masculinities. In the redesign, special attention is given to facilitate diverse needs, which allows multiple masculinities to

interact. One can find attractive cultural programme, like a library and a club to promote interactions between local residents. Also densification is an important intervention in Holendrecht, since this location if well connected to different parts of Amsterdam and extra housing allows to facilitate a diverse range of programme.



Source: Author's own



New homes for new residents

Central library which is welcoming to all

High quality pavement

Nearby work locations accessible by bike

Lighted public spaces to make sure everybody feels safe at night



Smooth street furniture to facilitate urban sports as well

Central cultural hotspot to experiment

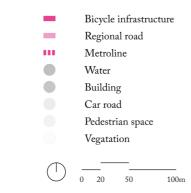
91

(70) Spatial Interventions for Holendrecht square See Bibliography for specified references

Collective Environment Reigersbos

This area of Gaasperdam will be transformed to a collective environment which is currently characterised by many homogeneous tenementflats with family normative housing typologies. At the moment the area is well connected by a bicycle infrastructure and a regional car road, see (71).

Different spatial interventions are necessary to change the current situation, see (72). This overview also indicates which stakeholder is most important to facilitate the suggested interventions.



(71) Current situation: Collective Environment Reigersbos Source: Visualised by Author



Affordable housing in diverse typologies

- 1. Upgrade & transform homogeneous tenement flats
- 2. Develop elderly friendly housing
- 3. Develop youth housing
- 4. Develop co-housing

Accessibility to labour space

- 1. Develop maker industries along car infrastructure
- 2. Develop office spaces
- 3. Increase collaborations between local schools and the AUMC
- 4. Improve local & regional connectivity by public transport

Community services

- 1. Facilitate multiple community centres
- 2. Increase education facilities
- 3. Create hangout spots for youth
- 4. Improve neglected courtyards to community gardens

Diverse leisure opportunities

- 1. Programme multiple bars/restaurants
- 2. Increase out- & indoor sport facilities
- 3. Improve accessibility to nearby recreation locations

(72) Spatial interventions and their responsible actor

Source: Author's own

Responsible actor

- Housing corporations
- Health care institutions
- Municipality
- CPO's
- Municipality & Makerindustries
- Project developers
- Schools & AUMC
- MRA
- Municipality
- Municipality & Schools
- Municipality
- Social housing corporations
- Local entrepeneurs
- Municipality
- MRA

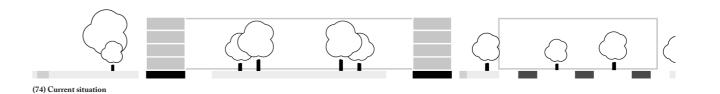


Programme

Source: Visualised by Author

The prime intervention is this area is adding more diverse housing typologies and creating community services. See (73) for a more elaborated plan view of the design. Existing housing will be combined or split in to two which means that more housing typologies will be here to facilitate alternative lifestyles. Next to a more diverse housing stock, also more labour spaces will be located in this area of Gaasperdam. Large parking spaces will be of less importance due to the increase of shared mobility services. Moreover, many businesses dependent on good car infrastructures. Therefore, these parking spaces are interesting locations to plan work related programme, like maker industries.

Also, these spaces are on the edge of the neighbourhood which limits the nuisance to the local residents. Moreover, more public and collective programme will be added to the blocks. For example, The inner courtyard will change to the main place to meet local residents. This could transform to a community garden to grow vegetables and fruits. Also indoor collective programme will be added for office purposes or homework guidance. To understand how this programmatic mix would work on a local site, see (74).



Increase out- & Upgrade & transform Facilitate multiple Create hangout bound industries along car facilities flats centres infrastructure

(74) Section AA': Programmatic mix in Reigersbos Source: Visualised by Author

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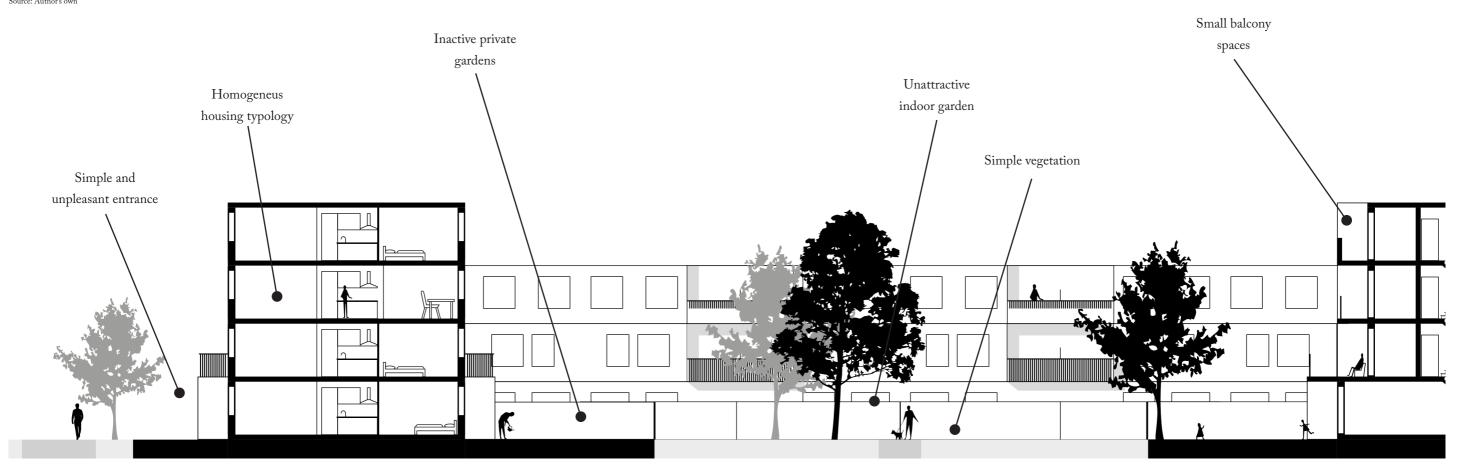
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New ecological spaces
Working oriented space

Promoting interactions between diverse masculinities is the goal of this design proposal. The current situation, visualised in (75), highlights elements which limit empowering interactions. The most important and promising element is the public courtyard. At the moment the quality is very low, due to simple vegetation, fenced private gardens and lack of furniture to spend time in this space.

0 1 2,5 5 m

(75) Section BB': Current situation Veenendaalplein Source: Author's own

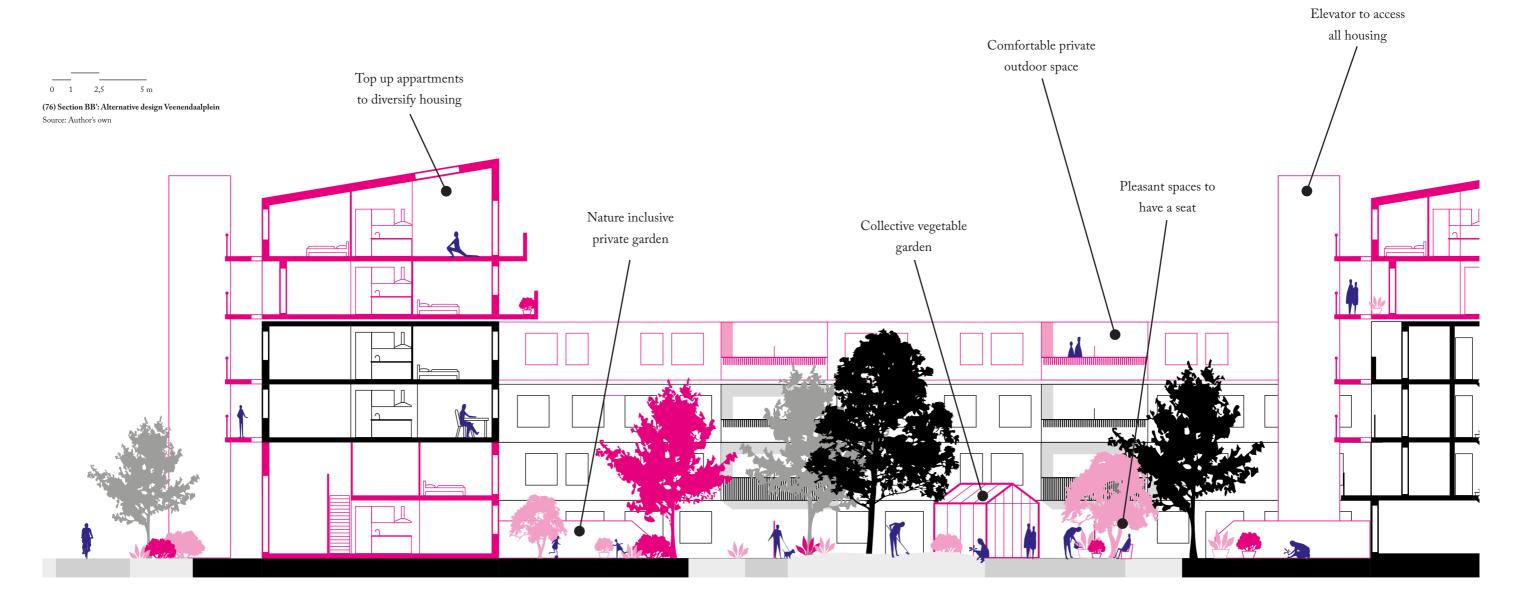


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In the new situation, see (76), extra housing is developed on top of and within current tenement flats. This intervention makes it possible to feel at home if you have alternative housing needs. For example, elevators are important elements which makes it possible to house people who are less able to move, like elderly who would love to stay in Gaasperdam. Moreover, diverse housing typologies attract new groups of residents, which might result in a clash between current and new residents. Community services are therefore very essential to facilitate.

The redesign of the public courtyard focusses on these community services to promote interactions. For example, drinking a coffee with a neighbour is made more appealing. Also a community home allows residents to informally interact and use some extra space which they don't constantly need. These community spaces are also part of a bigger social network which can assist residents who need extra support.

Promoting interactions between diverse masculinities is very beneficial, but one should also be aware of different possible conflicts. The most prominent conflicts in this space typology is the conflict between knowing your neighbour and enjoying anonymity. Therefore, private gardens and comfortable balconies are essential to facilitate spaces to ease out.



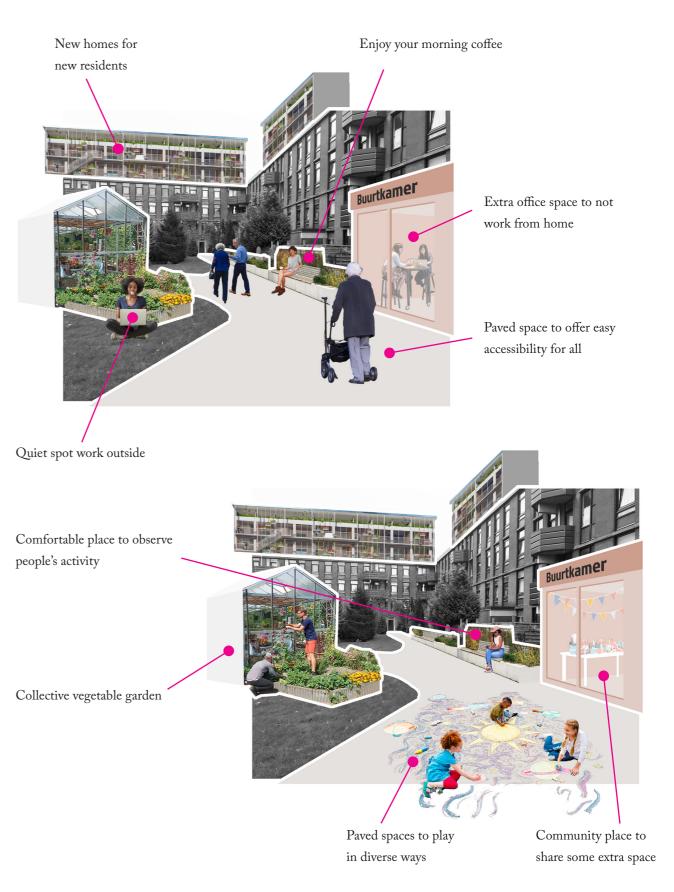
Experience

Currently, many public courtyards in Gaasperdam are similar to the Montfoorthof, see (77). The montages, see (78) illustrate how such spaces can be redeveloped to facilitate diverse masculinities. In the redesign, special attention is given to facilitate common interests. One

can find community services on the ground floor and a collective garden to promote interactions between local residents. Also developing diverse housing typologies is an important intervention which allows more people to feel at home in Reigersbos.



(77) Current situation Montfoorthe Source: Author's own

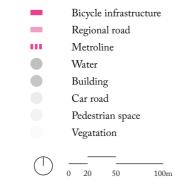


(78) Spatial Interventions for Montfoorthof See Bibliography for specified references

Landscape park Gein

This area of Gaasperdam will be transformed to a nature inclusive environment which is currently characterised by many homogeneous single family row housing. At the moment the area is well connected by a bicycle infrastructure and metroline, see (79).

Different spatial interventions are necessary to change the current situation, see (80). This overview also indicates which stakeholder is most important to facilitate the suggested interventions.



(79) Current situation: Landscape Park Gein Source: Visualised by Author



Affordable housing in diverse typologies

- 1. Split single family homes
- 2. Develop (collective) elderly housing
- 3. Develop eco villages

Accessibility to labour space

- 1. Improve local & regional connectivity by public transport
- 2. Develop flexible office spaces
- 3. Increase collaborations between local schools and the AUMC
- MRA
- Project developers

- Individual house owners

- Health care institutions

- CPO's & Waterboard

Responsible actor

- Schools & AUMC

Community services

- 1. Facilitate multiple community centres
- 2. Increase education facilities
- 3. Create hangout spots for youth
- 4. Improve & diversify playgrounds

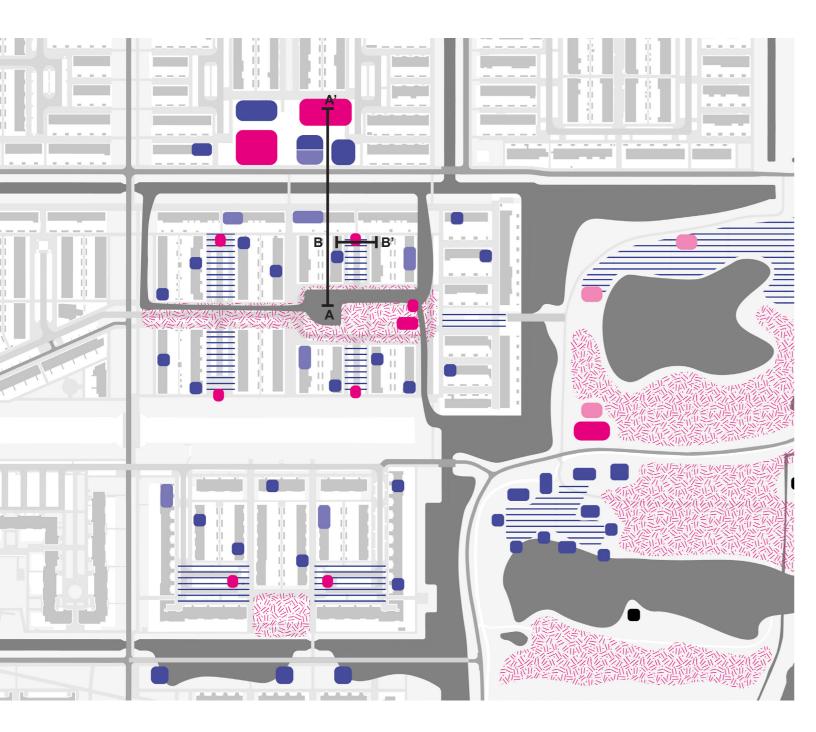
Diverse leisure opportunities

- 1. Create water rich landscape
- 2. Increase biodiversity
- 3. Build a Visitor centre & bird watching towers
- 4. Develop a recreational swimming pond
- 5. Improve accessibility to nearby recreation locations

(80) Spatial interventions and their responsible actor

Source: Author's own

- Municipality
- Municipality & Schools
- Municipality
- Municipality
- Waterboard & MRA
- Municipality & Amstelland
- Municipality & Amstelland
- Municipality & Amstelland
- MRA



(81) Spatial design Landscape Park Gein Source: Visualised by Author (Re)developed house
Labour space
Community service
Recreation facility
Bird watching place
Interaction space
New ecological spaces

Programme

Increasing natural elements is the most important intervention in Gein. This also means that the building density is not increasing which means that many space can be transformed for nature purposes. On the other side, the housing typologies do alter which result in more (collective) elderly housing facilities and collective housing units which are climate neutral by the use of natural resources. Also more collective programme like vegetable gardens, community homes and renewable energy collectives are integrated in the neighbourhood.

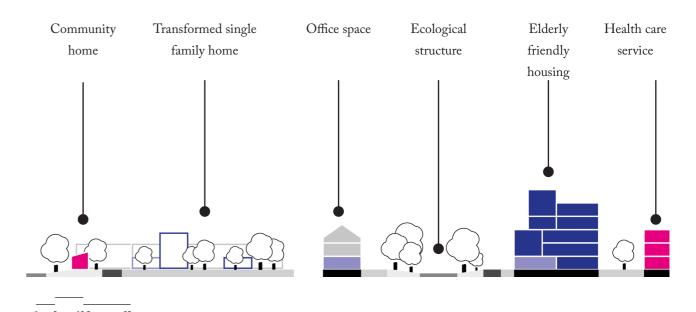
Diverse programme allows different people to enjoy the natural quality of the site. On the one hand because people who live here enjoy the quiet water rich landscape which is very suitable for the peet landscape of Gaasperdam. On the other hand, this area facilitates a high recreational value by facilitating a swimming pond and BBQ places, see (81) & (82) to understand how this programmatic mix would work on a local site.





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Source: Visualised by Author



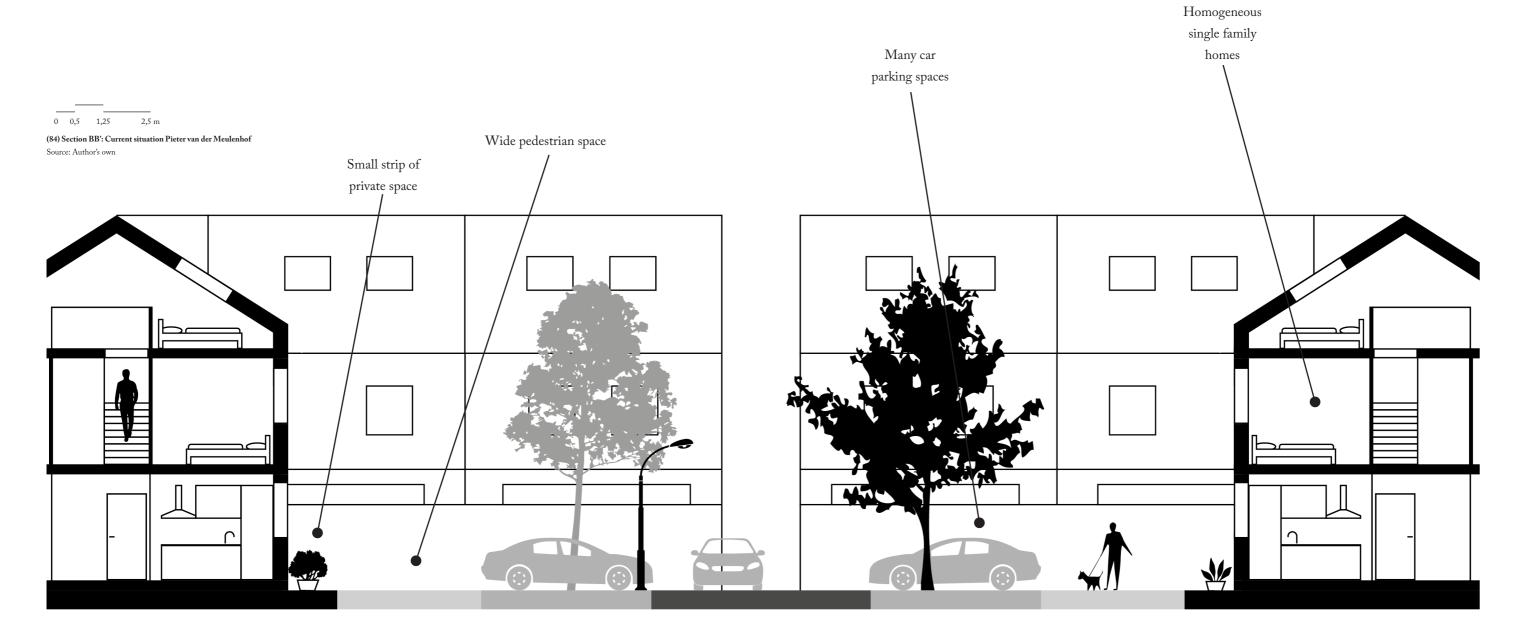
(82) Section AA': Programmatic mix in Gein Source: Visualised by Author

The current situation, visualised in (84), indicates that there is little space which can be appropriated by local residents. At this moment just a small strip of 1 meter in front of their home offers this possibility. However (83) shows that this is hardly used by the local residents.

Moreover, the vast majority of the public space is reserved for car parking and car mobility. These spaces are also the most important and promising elements in the street to increase natural elements and foster interactions between local residents.



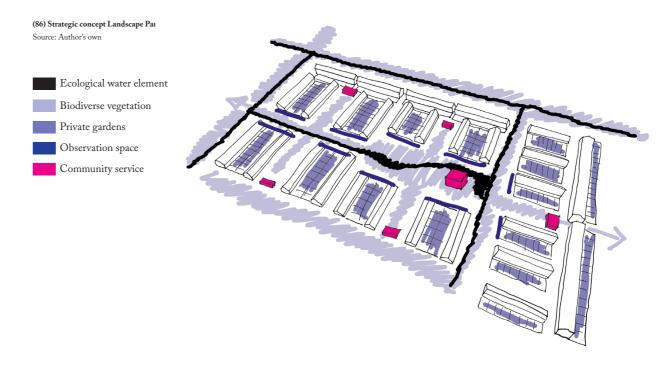
(83) Streetview image Pieter van der Meulenhof Source: Google (2019)

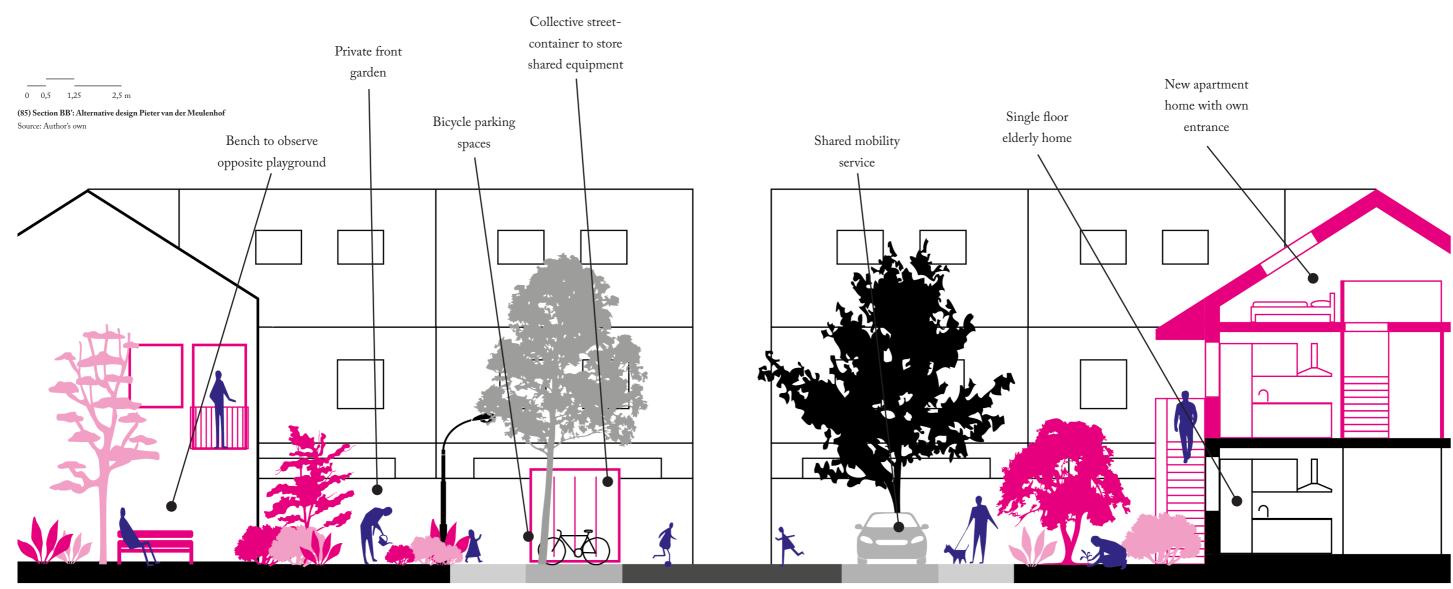


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The design section, see (85) indicates which interventions are proposed which allow for more interaction among residents and increase the biodiversity and natural quality of the site. Increasing the private space of residents in front of their home is the most important intervention. By this intervention, people are more motivated to use the front side of their home instead of the isolated private garden. Informal interaction with neighbours will happen more. This private space is created because the amount of car parking is decreased, since shared mobility services will facilitate a more prominent role in our future urban areas.

This intervention also provides the possibility to build a collective container which can be used by residents to store goods which can be shared by others, like a lawn mower. Diagram (86) illustrates how this very local and specific intervention can be translated easily to a more generic strategy for a bigger part of the neighbourhood of Gein.





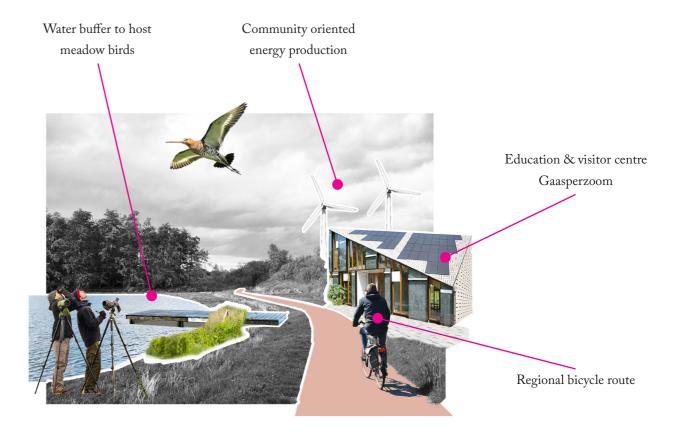
Experience

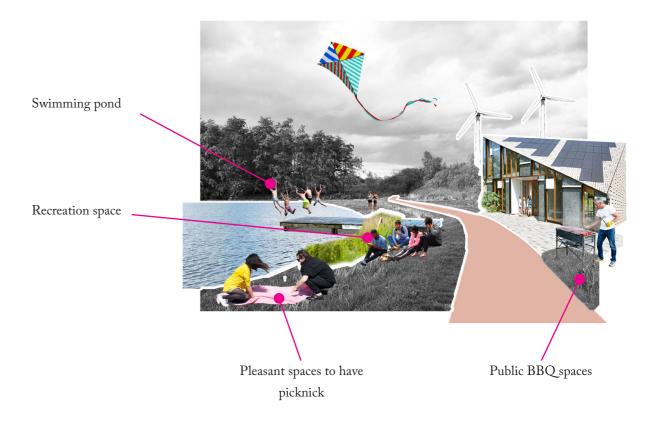
Qualitative interactions between masculinities happen via natural elements. To promote the interaction between diverse masculinities, one should also be aware of different possible conflicts which occur due to specific programme. The most prominent one in this space typology is the

conflict between people would like to enjoy the natural landscape quitly and people who would like to recreate here in company with friends. The montages, see (88) illustrate how the local site, see (87) can serve multiple needs of diverse masculinities.



Source: Hartog (n.d.)





(88) Spatial Interventions for Gaasperzoom See Bibliography for specified references

Design principles

The proposed design interventions for Holendrecht, Reigersbos and Gein are specific to their local conditions to create legitimacy for diverse gender identities. However, Gaasperdam is developed according to specific modernist design paradigms, which explains us that there are numerous similar neighbourhoods across the Netherlands and other parts of the world. Therefore, some interventions or insights can be translated to design principles which again can be used by other spatial designers to facilitate diverse appropriation of spaces.

A general remark, these are design principles which can be implemented by spatial designers, like urbanists, architects and urban planners in their design process. But this thesis also illustrated that the posed problem cannot be solved solely by the effort of our profession. Stakeholders from diverse fields like politics, municipalities, local communities and housing corporations are all very essential to create more legitimacy for diverse masculinities.

Create different spaces to attract different people

The first design principle explains us that it is essential to design diverse public spaces with a diverse programmatic mix that can used by different people. Residents of cities are different and unique, which should be reflected in the public spaces. How these public spaces are designed specifically depend upon the local conditions and needs.

Design spaces which can facilitate multiple needs

To create more legitimacy for diverse gender identities, it is essential that different people in some way interact with each other and share similar spaces. Since everybody has their own preference how to appropriate spaces, diverse people won't naturally interact with one another. Therefore, it is very important to facilitate multiple needs in similar public spaces. This will most likely lead to unfamiliar situations or even conflicts. But these possible conflicts cannot restrict the responsible actor from facilitating more legitimacy for diverse gender identities.

Facilitate interactions from the perspective of common interests

It is essential that diverse masculinities interact and accept each others presence. To facilitate this interaction in a sustainable way, one should programme functions which facilitates common interests. People who visit these spaces have a common interest rather than being part of the same social class or masculinity. These spaces are therefore very valuable and necessary to create legitimacy for diverse masculinities.

Integrate local interventions in a strategic framework

Local interventions are essential to translate visions and abstract concepts to actual public spaces. However, local interventions become more powerful and valuable when they are part of a bigger strategic framework which covers the neighbourhood of Gaasperdam or even the complete city of Amsterdam. A strategic framework is mainly important since this builds a coherent solution across a wider spatial context. Singular interventions have a very local benefit which is not relevant anymore if local residents visits a different place. If local interventions become part of strategic framework, one can find familiar spaces across different places.

Be explicit and detailed about the people you design for

Finally, a more general design principle which can be applied to every design project across numerous disciplines. It is very important to be explicit about the diverse range of people you aim to facilitate. If a designer or other stakeholder is not specific about their target group, several biases from the designer will be implemented in the project. Furthermore, such approaches are essential to address differences between diverse people. Possible conflicts or commonalities will be become more clear.

Conclusion

This thesis focussed on the following main research question: How can we reshape heteronormative spaces in Gaasperdam to facilitate legitimacy to diverse masculine identities? To be able to answer this question, several sub questions are formulated, each focussing on a specific aspect of the main research question. The first sub research question focussed on the interrelation between the built environment and gender.

SQ1: In which way does gender relate to the built environment?

To answer this question, literature has been reviewed to understand the production of space, which is dependent on 3 different perspectives, namely: lived-, perceived- and conceived space. The lived- and conceived spaces addresses thinking about space rather than the actual physical space. Therefore, space is not merely a physical context. But highly intertwined with societal norms. To be more specific, these norms are explicitly based on the binary framework of male and female and their heterosexual relationship. Furthermore, these norms are created, reflected and reinforced in our built environment.

Which means that other gender identities are restricted and limited to perform their gender identity. From this theoretical understanding it is valuable to discover the spatial elements which support this.

SQ2: Which spatial elements contribute to heteronormative space in Gaasperdam?

From multiple spatial analyses, key insights were taken which explain that heteronormativity is active in several domains. First of all, it is embedded within the planning paradigm of modernist cities. The functional separation of residential and labour areas in cities makes it difficult to combine working with caring responsibilities. The mobility infrastructure strengthens this separation. The car infrastructure is detached from the local neighbourhood life, whereas the bicycle infrastructure is strongly embedded within the neighbourhood. Moreover, the programme which is relatively close to residential areas is facilitating these responsibilities of care as well. Also, within the architectural domain, heteronormativity is addressed. Nearly all housing is designed for the nuclear

family. Many family apartment buildings and single row housing with big private spaces characterise the housing typology of Gaasperdam. This image of Gaasperdam did not chance over the past 50 years, therefore it is interesting to find out how social and demographic changes reflect upon Gaasperdam.

SQ3: Which demographic changes in Gaasperdam disrupt heteronormativity?

Several demographic data was used to answer this question. Several important global, national and local changes are identified which mainly entail: increase of age expectancy, increase of the multi-ethnic composition of cities, and the increase of diverse household compositions, which are mainly single-person and single-female parent households. Because of these current statistics and shifts in society, the characteristics of the built environment in Gaasperdam should be questioned.

SQ4: Which subordinate masculinities are present in Gaasperdam?

For this sub question, personas are used to imagine the appropriation of space by different masculinities. This made clear that current programme and the built environment does not facilitate interactions between different masculinities. To be specific, they use different spaces and are active across different times which means that people hardly interact with someone who expresses a different masculinity. However, interactions are essential to achieve more legitimacy and awareness of diverse notions of masculinity. Possible conflicts need to be mitigated and empower individuals, therefore, the next sub question dives further into this topic.

SQ5: How could public spaces facilitate interactions among masculinities?

To understand the balance more in depth, several design experiments are made which helped to understand the essential of empowering interactions. The most important requirement of an empowering interaction is the facilitation of individual needs. Individual people should feel safe and supported enough. Secondly, collective programme is essential to make interactions possible because this means that different people share a space

which relates them to each other. Therefore, diversity of spaces is essential to facilitate diverse masculinities and diverse interactions. The spatial translation of this concept is addressed in the final sub research question.

SQ6: How should Gaasperdam develop to facilitate diverse masculinities?

Multiple design experiments are used to answer this sub questions. Also, the theoretical and conceptual insights from earlier research are translated to specific design interventions. First of all, the main route of Gaasperdam will be redeveloped according to four space identities, which are: highly urban, collective environment, residential space and natural landscape. These categories are used to define which interactions are possible and preferable at specific places. Furthermore, a neighbourhood which facilitates different masculinities does not necessarily mean that every specific place is inviting to all. But in general, the multiple collective spaces are essential as they facilitate opportunities for diverse masculinities to interact with each other and create awareness and thereafter legitimacy towards the diverse spectrum of gender identities.

Since all research questions are answerd, one understands how Gaasperdam can create more legitimacy for diverse masculinities. One important remark has to be made that conflicts and unfamiliar situations will most likely occur between masculinities. However, this threat may never intimidate responsible actors when facilitating marginalised gender identities. The current built environment has to change. Furthermore, to achieve this, one should understand that this challenges cannot be solely solved by spatial designs of our profession. Multiple stakeholders from diverse disciplines have to contribute to create just and inclusive cities which are welcoming all masculinities and diverse gender identities.

Reflection

This reflection is written to reflect upon this thesis in relation to the wider social, scientific, and professional context by addressing the research approach, results, and transferability. Moreover, this reflection will also address how to finalise the thesis towards P5. But first, a small introduction of the graduation topic: The spaces we use day to day have been shaped according to specific gender perspectives (Massey, 1994). Which are normatively coded as masculine and heterosexual (Pain, 1991; Berry et al., 2021). Masculinity understood as a man who is dominant and refuses to acknowledge vulnerability (McVittie 2017; Van Tricht, 2018). Diverse masculine identities are mostly subordinate in our patriarchal urban environment as well (Puwar, 2004; Hooks, 2004). Therefore, this thesis questions our urban environment and is researching spatial elements and structures that facilitate gender inequality and heteronormativity. Gaasperdam, a residential neighbourhood in Amsterdam Southeast is the project location for this thesis.

Research Approach & Results

Starting from the intensives, the graduation process emphasises a strong explorative research by design approach. From the start I researched the local conditions of the site in depth which allowed me to discover several spatial elements which empower heteronormativity. During the Bachelor programme and earlier Master courses this research approach proved to be most efficient and fun when focussing on design challenges in the built environment. Also, the design framework by Van Dooren et al. (2014) indicates that this type of research would help to make the process more explicit which helps to learn and reflect upon proposed design interventions.

In the intensives period, design interventions were expected. But it was difficult to translate the concept driven thesis to site specific design interventions.

Therefore, a more elaborated understanding of the research theme would be very useful. The research method, literature review was chosen to provide this broader understanding. It allowed me to build a strong theoretical-and conceptual framework focusing on the Production

of space and Heteronormativity. Moreover, the mainly feminist oriented research papers offered a critical view on our public spaces which helped to analyse the site of Gaasperdam from a gender perspective. These site analyses offered again new insights and opportunities to propose design interventions later in the graduation process. Another insight from the literature review was that the theme works across numerous scales and within diverse fields of study, like politics, economy, and governance. The spatial design profession, including urban design, urban planning and architecture is emphasising gender equity to a relatively small extent. Valuable insights are mostly taken from the field of urban geography.

At P2 a theoretical framework and diverse site analyses were presented. The feedback mainly aimed to start proposing design alternatives. Also, a suggestion was made to introduce personas to highlight the diversity of masculine identities. To react upon the feedback, explorative research by design is used explicitly to propose alternative designs for public spaces. Also, four personas have been composed to research spatial needs and to communicate insights to others in a very tangible manner. Valuable insights discovered via this approach are that interaction between different masculinities in Gaasperdam is barely happening. But this would be very valuable to create more awareness and legitimacy for each other. The level or type of interaction is also essential. Being aware of other's presence in the same public space is already beneficial to get familiar to diverse masculinities. More intimate interactions like, working together or having conversations are very valuable but should never be forced. The option to ease out and safeguard some privacy is very important.

Wider social, professional & scientific context

Within the Urbanism master track a growing need exists to work cross disciplinary as it is essential to face the local and global needs (Urbanism Semester book, 2021). Within research fields like sociology and urban geography, concepts and notions about gender identities and heteronormativity are discussed. Also, within health studies the impact of hegemonic masculinity is researched.

The project emphasises this cross disciplinary approach by translating sociological and non-spatial insights to space and explicitly questions our current urban environment. Exclusion, discrimination, and harassment are common practises to reaffirm people to the norm. But thanks to social changes, like women emancipation and queer acknowledgement, progress has been made. But increasing presence of alt-right movements, which attaches great importance to hegemonic masculinity, jeopardises more inclusive notions of masculinities and gender in general (AIVD, 2020). My thesis project reacts upon this and is researching how public spaces can facilitate diverse masculinities and create a sense of belonging. Therefore, it seamlessly fits to the Design of the Urban Fabrics studio topic: At Home. Moreover, the thesis relates to the MSc AUBS as it questions how we will live together and proposes alternative design interventions which makes the research valuable to professionals who focus on spatial issues, such as urban designers, urban planners, and

How will we live together? is not merely a question relating to the design of public spaces. It is important to go beyond this level of independent artefacts and reflect upon the design process in general. For example, in the Dutch spatial design practice, we clearly see the dominance of a specific gender culture. 77% of all architects and 66% of all urban designers are high educated white males and at a partner's level, the numbers even reach 90% (van Dijk, 2021). Needs, challenges, and wishes of people outside this culture might be difficult to imagine for the people in power. Kern (2020) reacts upon this by noticing that designers usually lack a sense of intersectionality. This thesis does not claim to be intersectional. But it starts to embrace different needs and values of people and by means of personas, it makes these differences explicit and tangible for the designer and other interested parties.

But to understand and collect these needs in practise, the diversity of voices shaping the city needs to grow and co-creation and participation should be much more common in design processes (Terraza et al., 2020). The city of Amsterdam begins to understand this urgency and

stimulated the development of WomenMakeTheCity (WMTC), an active and independent women's movement that guarantees that the interests of marginalized groups are considered by advising and co-creating from an intersectional feminist perspective. If design processes work from an intersectional approach, it will contribute to several Sustainable Development Goals (SDG's). Also, this thesis contributes to several of them, of which #5, Gender Equality & #11, Inclusive Cities as most obvious goals.

Process

However, the fact that participatory design processes seem to be essential to foster inclusive environments. Time is scarce in this graduation year and it was difficult to connect to local networks and interesting people who would be interested to collaborate. Just before P3, I did not manage to organize qualitative community meetings to gather information and reflect upon proposed design interventions. This insight informs me about the challenges participatory design entail. In future projects, time has to be invested early on in the process to collect valuable knowledge and build an inclusive design process.

Specific to this research, I did struggle to discuss the graduation topic and insights with peers and others. The resistance I felt to discuss this research theme clearly illustrates the power and harmful side of hegemonic masculine behaviour or normative behaviour in general. Talking about topics like racism, sexism, feminism, or masculinities is not popular at all. However, as a white, high educated cis-gender male person you enjoy quite some privileges, but it also affected me in the way that I mostly felt uncomfortable talking about it, as my challenges seem neglectable compared to less privileged people. Moreover, finding the right and meaningful vocabulary to express ideas and challenges I discovered was hard.

Ethical dilemmas

Within this thesis, a strong political opinion or belief is embedded which directly impacted the research results. As a researcher and designer, I'm biased. Firstly, this bias reflects itself in the literature I read and the data

I collected. From the first moment I started to read feminist theories and books which have specific ideas and perspectives about society and gender in general. On the other side, there are also many religious perspectives, who believe in binary notions of gender, where man and women have specific responsibilities in life. Diverse and fluid notions of masculinities is not accepted in these contexts, which makes the thesis in some extent irrelevant for them.

Another ethical dilemma dealt with in this thesis, relates to the impact of the design interventions. The main objective focused on facilitating valuable interactions among masculinities. The proposed design interventions could be ineffective or even harmful for other gender identities which address the necessity to assess the design interventions from a inclusive and intersectional perspective.

Final Steps

In the final steps of the graduation process, the thesis will address which scales of intervention are most relevant to facilitate legitimacy for diverse masculinities. Also, on a local scale level, more complete public space designs will be made which will illustrate how diverse masculinities interact with each other in different local neighbourhoods in Gaasperdam. To conclude, in the first part of the graduation process, more attention has been given to the analysis of the site and the exploration of the research theme via literature review and from P2 onwards, special attention is given to a research by design approach with the use of personas as the main research method. Those two methods were and are the guiding instruments to propose specific design interventions on several scales of intervention.

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