

### Pattern Book

#### Working Women

advancing towards gender equal cities

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Design of the Urban Fabric Embracing Plurality - Growing Porosity

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### a pattern language

before you lies the pattern booklet accompanying the graduation research Working Women. this is a collection of the pattern language developed in order to create a gender equal city.

the patterns range throughout the scales and in types of interventions, all aiming to increase gender equality in the city. the patterns add to one or more 'values', which research has shown to be important in this aim for gender equality. these values are division of labour, accessibility and symbology. some patterns address two of these values strongly, in other patterns a value may be present in a softer manner. this distinction is illustrated in the difference in colour in the symbols on each pattern



the patterns are based on either a literature reference, fieldwork or a reference project. these symbols show which of these applies to the pattern



the structure of the patterns is explained on the next page, with all elements constructing the patterns.

### pattern structure



### all patterns

all patterns are categorised based on the main objective they address. this has led to nineteen patterns of accessibility, seven patterns of symbology and four patterns for the division of labour. on the next page, they are arranged based on their scale (from national to building), and the type of implementation (from tangible to intangible)





### need fulfillment

besides addressing the objectives of symbology, division of labour and accessibility, each pattern also fulfills a need for working women in the city.

these needs fall within a category on the Working Women hierarchy of needs, and each pattern has a graphic depicting this fulfillment. the graphic on the right depicts the fulfillment of all patterns on the hierarchy, color coded according to the main objective the patterns address.

interesting to note is that the need fulfillment of symbolic patterns is mostly concentrated in the value category, while accessibility patterns vary over the whole hierarchy, as well as the division of labour patterns.

both the categorization of patterns based on objectives as well as that of need fulfillment assist in the choosing of the right pattern for a design assignment.



# love thy neighbour



a good relationship with surrounding neighbours and community connections means care labour can be shared amongst multiple people outside of the nuclear family unit

in individual families, the responsibility of care work is focused on one person per family. by forming connections with neighbours and the forming of a community, care labour can be shared throughout multiple community members. this decreases the load for each individual woman.



women

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specific cultures

all cultures

scale: national block connected to D2 D3 ( city street neighbourhood building



#### practical implementation

organise events that encourage connection and meeting between neighbours, such as neighbourhood festivals and communal days. such events should take place in protected, collective spaces such as a communal courtyard or living room, to ensure a safe environment which cannot be entered by outsiders.



# communal housing facilities



communal facilities in housing encourage the sharing of care reponsibilities accross families and neighbours

single-family housing and the focus on the nuclear family tasks the responsibility of care work with every woman seperately. communal housing facilities such as a shared kitchen, daycare or communal living room make it easier for neighbours to assist each other in the tasks, dividing the load between families.



scale: national city neighbourhood

block street building connected to





#### practical implementation

multi-family housing structures should have communal facilities such as communcal kitchens, laundy rooms, daycare or playing room, communal living room. these facilities need to be easily accessible from all residential units.

single-family housing blocks can also facilitate communal facilities, in a central and accessible location in the block.



# meeting over a gentle cycle



programming collective functions in open, accessible and visible locations in the building increases meeting possibility for neighbours and encourages connection between neighbours

building a connection with neighbours and founding a community helps women handle their care work, as there are more people who can assist them in fulfilling their tasks and sharing the work. to facilitate connection between neighbours, meeting opportunities need to be facilitated in the building. facilitating the laundryroom in a location that is visible to and accessible by all residents facilitates more and better meeting opportunities than placing it in an undesirable an hidden location such as the basement.



scale: national city neighbourhood

block street building





#### practical implementation

the laundry room and other frequented collective building facilities should be located in a desirable, open location in the middle of the building, which is clearly visible from multiple points of view throughout the building.



### flex work place



having the opportunity to work near home makes it easier for women to combine paid and care labour

childcare and the care of dependents is the biggest reason women start working part-time, as these two responsibilites are harder to combine due to the erratic structure of child and home care. facilitating working locations near home, either in the neighbourhood or in the building, makes it easier for women to conduct paid labour irregularly, as this decreases their travelling time and increases their flexibility.



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scale:	national	block	connected to	A1	46	47	
	city	street		AI	70	A	9
	neighbourhood	building					



#### practical implementation

house flexible working spots and locations for small businesses in the plinth of buildings throughout the neighbourhood. locations should be distributed in a manner that everyone can be there in 10 minutes or less, ideally in such a way that women who live closeby are in range of a baby monitor.



# amenities throughout the city A

properly distributed amenitites throughout the city significantly decrease women's travelling time

the different activities connected to the care labour in the family are often situated at locations dispersed throughout the city. this results in erratic and time-consuming travelling patterns, which increases the amount of time it takes for someone to fulfill these tasks. properly distributing qualitative amenities throughout the city will significantly decrease their travelling time



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D4 A6 A7



block street building

scale: national city neighbourhood



#### practical implementation

all neighbourhoods should centrally facilitate a high quality shopping and care centre, schools and extracurricular facilities. larger facilities may be shared by a maximum of three neighbourhoods, if located on the border of these neighbourhoods



# reliable public transit network A2

a reliable public transit network ensures women can move freely and assuredly throughout the city

research has shown that women use public transport more often than men, with generally two thirds of public transport users being women. unreliable public transit prevents them from moving through the city as they wish to, adding time to their travelling patterns or even prohibiting them from travelling to their destination at all. by ensuring the public transit system is reliable, women have a more stable experience moving through the city



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#### practical implementation

cities' public transport systems should consist of multiple methods of transportation (train, metro, tram, bus, bikeshare, ferry), run on a decided shedule, and where possible drive on separated tracks and lanes in order to avoid traffic-related delays. in case of unforseen circumstances that lead to delays or cancellations, the system should have sufficient alternatives or quick replacement transport.



# gradations of outdoor space

different levels of outdoor public space dispersed throughout the city increase the accessibility of outdoor space

the presence of multiple forms of outdoor space throughout the city facilitates more opportunity for inhabitants to use this public space depending on their needs. by facilitating private (or collective) green space (such as a courtyard in the housing block), informal public space (such as a small playground in the structure of the city-blocks) and formal public space (a large, designed city park taking up more space in the city), women can choose to visit green space closer to home based on the need they have at that moment



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#### practical implementation

three levels of outdoor space should be facilitated dispersed throughout the city, decreasing in frequency when increasing in size; all blocks should have private / communal outdoor space, semi-formal outdoor space should be reoccuring throughout the grid, larger city parks can serve multiple neighbourhoods.



### walking to the park



situating public spaces on important walking and cycling networks increases their accessibility

parks and squares that are located along walking and cycling networks in logical places in the network are located en route from important locations, for example from school to home. this increases their accessibility, as there is no need to detour in order to arrive at the parks. this saves time, as they can be combined in an already existing trip, instead of requiring a separate trip.



scale: national city neighbourhood block street building







#### practical implementation

ensure city and neighbourhood parks are situated on important slow traffic networks, such as connecting cycling routes through the city or frequented walking paths.



## quick change



a public transit hub located in each neighbourhood decreases women's time spent travelling

women are more likely to use public transport than men. as most public transport systems are organized radially, public transit users need to transfer often, decreasing efficiency considering travelling time or distance. efficiently coordinated transport hubs decrease waiting and travelling time for public transit users



scale: national city neighbourhood block street building







#### practical implementation

neighbourhoods or important transit junctions should facilitate centrally located transport hubs that facilitate different modes of transport. transport timetables need to be attuned with each other to facilitate optimal transfer opportunities. hubs needs to be equipped with enough waiting seats, rain coverage and light in order to feel safe and comfortable for everyone













### quick trip to the shops



amenitites within a short distance increase the flexibility with which care tasks can be fulfilled and distributed within a family

travelling distance has a great influence on the time it takes for people to fulfill a care task for the family. decreasing this distance makes it easier for women to be flexible with their time, and may also encourage the partner or other family members to take over parts of these tasks and the care labour







#### practical implementation

amenities such as daycare, grocery store or healthcare facilities should be within walking distance, or at most a 5 minute cycling distance, from residential areas at central locations in the neighbourhood



### the doctor is downstairs



care facilities such as healthcare, childcare and schools that are dispersed throughout the city and integrated in mixed function buildings are easier accessible

one of the biggest problems women face is the extra travelling time it takes to fulfill care tasks. by organizing facilities connected to these tasks in a way that they are situated on the way to work or home, or even in the same building as ones home, this extra time is eliminated as there is no additional effort needed to reach these locations.







#### practical implementation

program important facilities such as healthcare, childcare and other frequent destinations in the plinth of buildings dispersed throughout the city, making sure they are distributed evenly throughout the city and are accessible to the neighbourhood they serve. functions that may need more privacy, such as healthcare, can be facilitated in more private atmopshere, such as further inward in the building or in a more residential area.



### the next stop is... the park



public transit stops at city parks increase the parks' accessibility

larger city parks are often dispersed throughout the city. they may be hard to reach without a car, or the added travelling time makes the trip not worth it. by connecting them to the city public transit network through facilitating a nearby transit stop, they become better accessible for everyone, mostly for people who do not live close to a public park



scale: national city neighbourhood block street building





#### practical implementation

each large park in Rotterdam should be served by a public transit stop within a walking distance of less than 5 minutes walking. this public transit stop should facilitate multiple modes of transport and offer a fast connection to the rest of the city



### private outdoor space



### sufficient private outdoor space ensures everybody has access to personal outdoor space to utilize the way they want to

access to private outdoor space provides women with an area of outdoor space to view as an extention to the home. this offers a feeling of comfort in private outdoor space, which increases the ease with which women can choose to go outside



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scale: national city neighbourhood block street building







#### practical implementation

all residential units should have private outdoor space, either in the form of a garden or balcony. the space should be reasonably sized according to the size of the unit, and have light and air. ideally, this space is shielded from view.



## semi-public outdoor space



semi-public, or collective, outdoor space allows neighbours space to interact and organize events in a safe and known environment

collective outdoor space can offer multiple women-friendly aspects. firstly, it provides larger outdoor space in a controlled environment, allowing them and their possible children the option to visit outdoor space with less effort and less need for supervision. additionally, it gives neighbours a guaranteed location to interact and meet, meaning they can build a better connection. it also provides them with a location for neighbourhood events.



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scale:	national city	block street	connected to	D1 A3 A9 A
	neighbourhood	building		



#### practical implementation

all housing blocks should have a collective outdoor space that residents can use, either personally or together. the area should be large enough to house all connected residents together in case of an event. the area should be protected from outsiders, either through the use of architecture, or protective street design.



### public outdoor space



public outdoor space offers people the opportunity for 'excursions', interaction with others and more active use of outdoor space

public outdoor space in the form of city parks provides women with larger outdoor spaces to interact with others and form new communities. it also allows more active participation of outdoor space, such as in programmed sports that are facilitated in the city park. it also provides them with a location to de-stress away from the home but in qualitative public space.



women all people specific cultures all cultures





#### practical implementation

each neighbourhood should house sufficient and qualitative public outdoor space to facilitate different activities than those that can be done in private and collective public space. these spaces need to be accessible for everybody in the neighbourhood.



### text me when you get home



a qualitative (long distance) cycling network throughout the city increases peoples' experience of safety

low quality bicycle paths through uneasy parts of the city deny access to the city for people who avoid such routes. providing a qualitative cycling network provides access to the city for all inhabitants, but specifically women, as they more frequently experience feelings of unsafety in the city



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scale: national block connected to city street neighbourhood building





#### practical implementation

cities should facilitate a cycling network that connects all parts of the city. the routes within this network should be well-lit, have acitvated plinths at strategic locations, have proper paving, few tunnels and no ledges or other elements that invite loitering



### something for everyone



diversity in public space, taking cutural differences into account, provides access to public space for everyone

people with different cultural background require different elements in public space. where western women prefer wide and open spaces to feel safe, women from other cultural backgrounds may differ in these needs. Islamic women, forinstance, prefer public space to be more sheltered in order for them to feel safe.

even women with the same cultural background may differ in their preferences for public space or their experience of safety. facilitating public space to offer elements that cater to these differences ensures that public space is accessible by and desirable for people with differing preferences, increasing the number of women who can experience and enjoy public space.



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scale: national block city street neighbourhood building



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#### practical implementation

each neighbourhood houses public space tailored to different cultural needs. this can either be by variety within public spaces, or variety of public spaces throughout the neighbourhood. variety needs to be made between open and sheltered space, active and passive use of public space and natural and more urban public space.



## lounge function in park



sufficient seating in parks facilitates more activity in the park, as well as more gender diversity in the type of activities

research in Vienna has shown that from a certain age, boys start to dominate in the usage of public parks and their facilities. this is because from this moment on, girls are gaining an interest in different types of activities, which have more to do with social interaction than with exercising or playing sports. by facilitating these activities, such as by putting benches or lounge-furniture in parks, it increases girls' participation of parks. the presence of benches and other forms of furniture also facilitate activities for other park visitors, who can use the benches to sit and watch their children, or read a book, or use it to

as a location to meet their peers



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scale: national city neighbourhood block street building







#### practical implementation

all outdoor public space should facilitate sufficient benches, tables with seating, and other types of lounging furniture



objectives





### female active function



programming public parks with acive functions focused on women allows for them to participate in active endeavours in public settings

boys and men dominate sports and active functions in public space. this makes participating in such activities less desirable for girls and women, due to different reasons. by facilitating active functions that cater to women, they can also take part in active activities



scale: national city neighbourhood block street building







#### practical implementation

public space should be programmed with active functions that cater to women and girls, such as volleyball or badminton courts.





objectives





### all eyes on us



activities surrounding public space adds social control which is beneficial to women, children and marginalized groups alike

activities surrounding or on streetscapes that ensure view over and control of these streetscapes provide a social control that facilitates a feeling of safety for women. activities should be connected to the streetscape, either through open doors / visible windows, or with an extention on the street such as a terrace



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#### practical implementation

important slow traffic routes and public spaces should be surrounded by an active plinth, allowing for optimal contact between (people inside) buildings and the public life on the street. functions that can be programmed are restaurants and bars, cultural installations or other activities with wide opening hours that ensure the presence of many people, and offer an orientation of these people outwards to the public space or traffic route

#### sources









## i'm walking here



wider sidewalks provide more space for pedestrians with prams, grocery bags, wheelchairs or children, increasing the feeling of traffic safety

small sidewalks alongside busy car roads feel unsafe. this feeling of unsafety is increased when women are also carrying grocieries or walking with children, widening their circumference. such sidewalks also do not facilitate the space for oncoming pedestrians. widening sidewalks make it easier to navigate the city, as they diminish all of these aspects



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#### practical implementation

important walking routes should have sidewalks that are at least 2.5 meters wide



sources

objectives





### non-obstacle crossings



ensuring crossings in the city are accessible without obstacles improves freedom of movement

crossings with heigth obstacles such as stairs are obstructing to people who are walking with prams, wheelchairs or who are mobility-impaired. providing such locations with ramps or lifts increases the ease with which people of these categories move through the city.



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scale:	national city	block street	connected to	A17
	neighbourhood	building		



#### practical implementation

ensure that important crossings through the city that deal with height differences are fitted with lifts, ramps or other interventions that bridge the height difference



### quick pitstop



#### qualitative public toilets increase the access women have to the city

while there are many public urinals in Dutch cities, there are less qualitative public restrooms. being ensured of access to a restroom is crucial when spending a day or night out in public space. being able to relieve oneself is a basic necessity of life, and a lack of public restrooms discourages women from spending a lot of time in the city, as they either cannot use a restroom or need to pay for the use. by facilitating public toilets, women know that they have the option to go should it be necessary, which increases the likeliness they will spend longer in public space.



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#### practical implementation

ensure that the city is fitted with clean, qualitatie public restrooms that have doors and can lock. these restrooms need to be accessible 24/7, and are dispersed through the city in a manner that there is a restroom within 5 minutes walking distance



### parent is a two-person noun

improving parental leave legislation, in particular partner-leave, leads to a shared parental responsibility in two-parent families

poor paternity leave regulations give the expectation that parenting is solely a task for the mother. by improving these regulations, the message that it is important for partners to also be an active parent is sent.



national scale: city neighbourhood

block street building

connected to







#### practical implementation

design parental leave legislation that offers longer and better paid leave. introduce measures that encourage the partner to take their leave, such as increasing the birthing parents' leave when the partner takes time off



### wage gap correction



women who earn the same as their partner are less likely to be the default parent to fulfill the care work in the family

besides from cultural expectations, a big reason a female partner cuts down on working hours in lieu of a male partner is due to their salary being lower, saving the family a larger decrease of income. the current corrected wage gap in the Netherlands is 7.4%, meaning women earn 93.6% of a man's income in comparable fucntions. by correcting the wage gap and increasing women's income, money is no longer a factor in the decision on which parent is cutting back on hours and is more resposible for the care labour of the family



scale:	national		
	city		
	neighbourhood		

block street building

connected to





#### practical implementation

implement national legislation encouraging equal pay between men and women.



sources

objectives





### non-gendered language



using non-gendered language and visual information helps move away from gendered societal expectations

gendered language (visual or written) embeds an expectation of gender roles or of a male default (by a standard use of the word 'he' when speaking about a subject that could be of any gender for instance). adjusting official signage and messages to reflect a non-gendered basis helps eliminate such gendered social ideas



national scale: city neighbourhood

block street building

connected to





#### practical implementation

signage and language issued by the government and municipality, on public transport and in the public space needs to be gender neutral, allowing for all (or no) genders to appear in their messaging



### female statues



### showcasing female role models expresses the message that women are also important and people to look up to

statues throughout the city symbolize the people our society values. a lack of female statues expresses the message that women are less important to society than men are. erecting female statues expresses the message that women are of equal importance



scale: national city neighbourhood

block street building

connected to





#### practical implementation

ensure the city has at least as many female as male statues, preferably in central locations in order to allow as many people as possible to see the statues



### female streetnames



using female names for streets and squares acknowledges that women are also important figures in our history

street names symbolize the people our society values. a lack of female street names expresses the message that women are less important to society than men are. naming streets for (influential) women expresses the message that women are of equal importance



scale: national block connected to 54 city street neighbourhood building

Lotte Stam-Beesestraat

#### practical implementation

ensure the city has at least as many female as male street names, preferably distributed throughout the city in order for every neighbourhood to have female street names

Aletta Jacobsweg



### protesting space



### having sufficient public space to protest aids women in their fight for equality

in the history of the fight for female rights, most successes have been booked through the use of protests. to this day, all Icelandic women protest every International Women' Day to continue asking for attention for gender inequalities. demonstrating is a fundamental right, and the city should house enough locations for people to gather and be able to exercise their freedom of speech



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scale: national block city street neighbourhood building



#### practical implementation

the city should facilitate enough open public spaces in order to allow for women to organize protests. these locations should be large enough to house a multitude of people protesting, be located in public locations to attract attention, and be central enough to allow for a connected march should that be desirable. the locations need to be easily accessible by public transport.



# changing table in all restrooms S7

facilitating a changing table in all restrooms regardless of gender allows for all parents to be able to change their child's diaper

changing a childs diaper is a large part of the caretaking of infants. changing tables are a practical and stable amenity to aid in this activity. facilitating changing tables in women's restrooms and not mens, or not making them accessible to all genders, sends a message that only women should take care of their children in this way. it also prevents the partner from performing the task, laying all the care labour on the women. by facilitating changing tables in a manner that they are accessible by all genders, this task can be split between partners and the idea of the mother as default parent is reduced.



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scale: national city neighbourhood

block street building connected to



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#### practical implementation

public restrooms and publicly accessible toilets in buildings need to be equipped with a changing table that is accessible by all genders. this can be done by either locating the changing table in a seperate room, or facilitate a changing table in all gendered bathrooms.



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### images

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