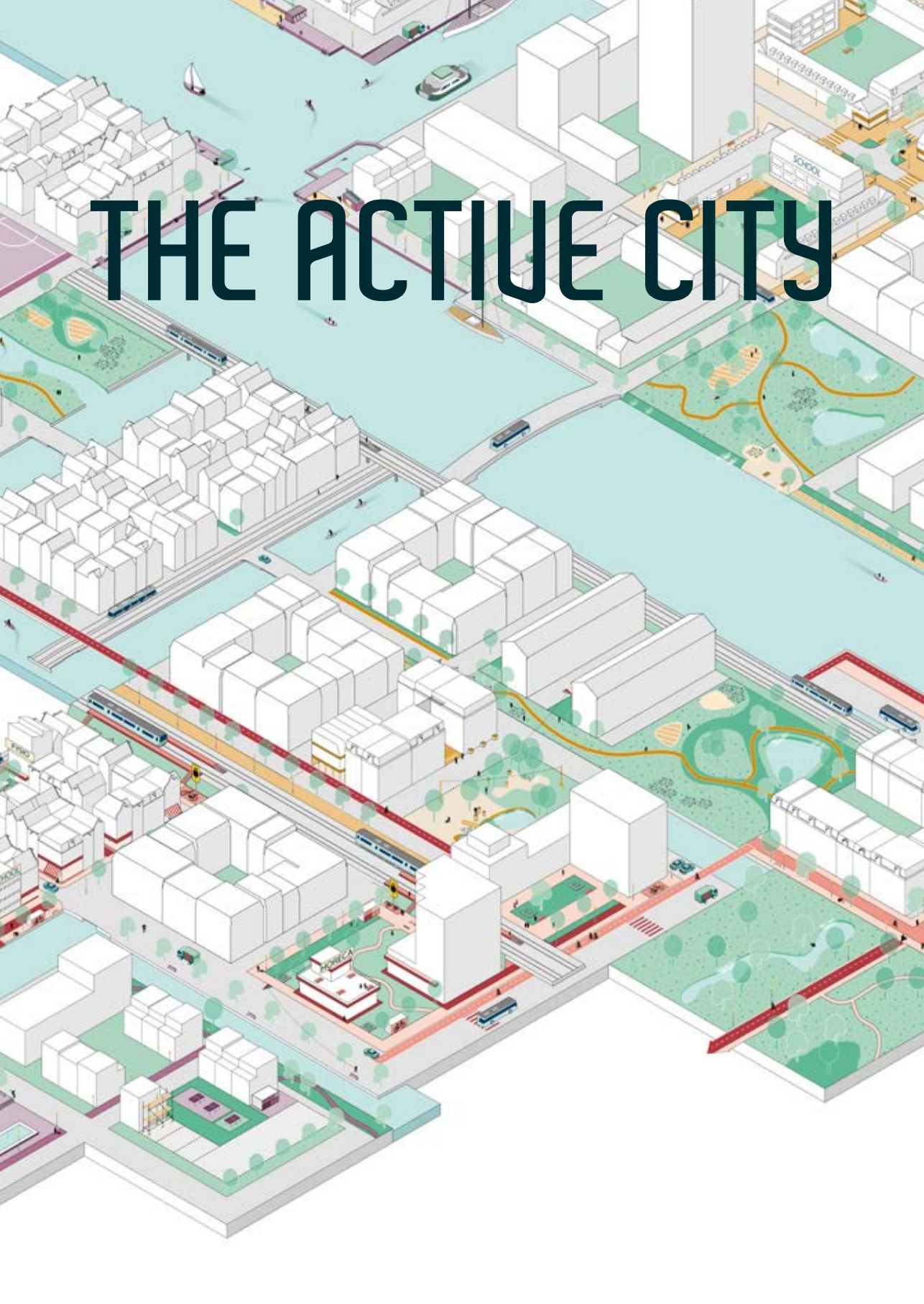
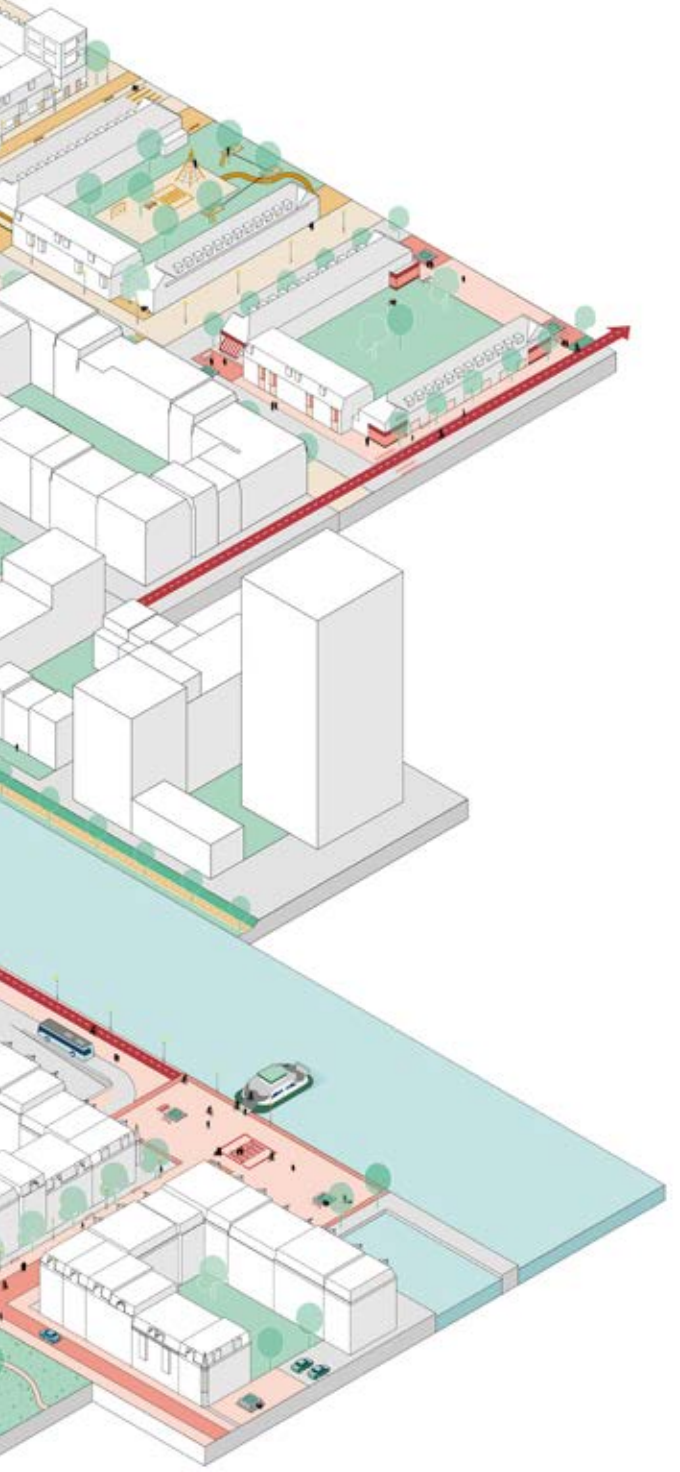
THE ACTIVE CITY





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City of Amsterdam

The active city

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Foreword

Physical activity is important for everyone in Amsterdam, young and old. We all know it improves our health, but we don't get enough. Taking the car or scooter for short trips to the supermarket is easy, and many children play too little outdoors. Things have to change.

Physical activity is high on the agenda in Amsterdam. So the question is how can we tempt people in Amsterdam to take a walk or go for a cycle, kick a ball about on the grass and avoid taking the car for short trips? How can we ensure that this is possible for everybody?

This book contains examples of large and small interventions in public space that encourage physical activity: wide sidewalks, low-traffic neighbourhoods, uninterrupted jogging trails through the city and open water for swimming. Plenty more interventions are imaginable. Technical officers, designers and policy-makers can draw inspiration from the examples presented on these pages.

Amsterdam wants to be a city where being physically active comes naturally to everybody who is capable of doing it. Simply because it's possible everywhere. Want to join us?

Eric van der Burg

Eric van der Burg is the Amsterdam alderman responsible for the portfolios Care and Welfare, Elderly, Sports and Recreation, and Spatial Planning. He promotes a healthier city through *The Active City* programme.

The active city

Amsterdam wants to be an active city, a city that encourages people to be physically active. A city with plenty of space for cyclists and pedestrians, a city where everybody – young and old – can enjoy sports, play and relaxation. In the active city, physical activity is a natural part of everyday life. This book describes what the active city looks like. It offers inspiration and design tools for city planners, designers and other professionals who work every day to improve the city.

WHY THE ACTIVE CITY?

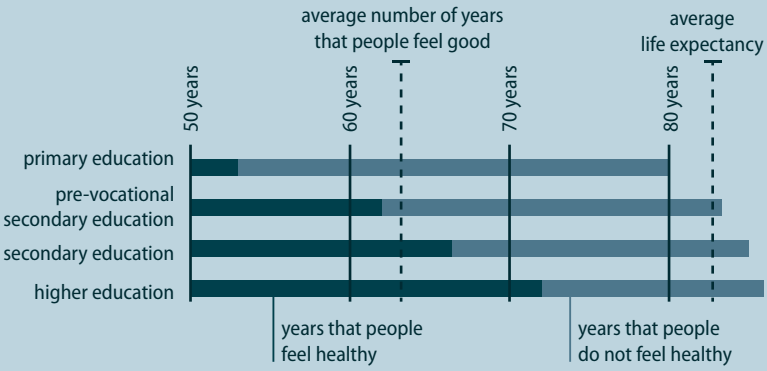
The advantages of an active city are manifold. The city becomes healthier, more attractive, more liveable, and more economically vital. Healthier because of the clean (or cleaner) air and reduced noise pollution. Healthier also because inhabitants are enticed to get more physical exercise. That is badly needed, because being physically active (or choosing to be) is not easy or obvious for every inhabitant. Many people do not get enough exercise and do not reach the Dutch norms for sufficient physical activity and exercise.[1] Luckily we see a decline, but many inhabitants are still overweight and suffer from obesity.[2] Sufficient exercise has a positive impact on wellbeing and helps to combat depression, cardiovascular disorders and dementia.[3] Especially inhabitants with a low socio-economic status, as expressed by work and education levels (SES) fail to reach the exercise norm.[4] Unfortunately, such people also belong to those groups whose life expectancy is significantly lower. And the number of years that such people feel healthy is also much lower than it is among people with a high SES.[5]

Sufficient physical activity enhances the appeal and quality of city life. A city where children can grow up in a safe and healthy environment and where adults enjoy working and relaxing. Physical activity ensures that people feel a 'sense of belonging'. A pedestrian and a cyclist enjoy more social interaction with their surroundings than a motorist does. The child playing outdoors learns to interact with others, and the supervising parents get to know one another.

The active city benefits economic vitality. It helps to create an attractive climate for companies and employees, ensures that families can continue to live in the city, and makes the city attractive to visitors.

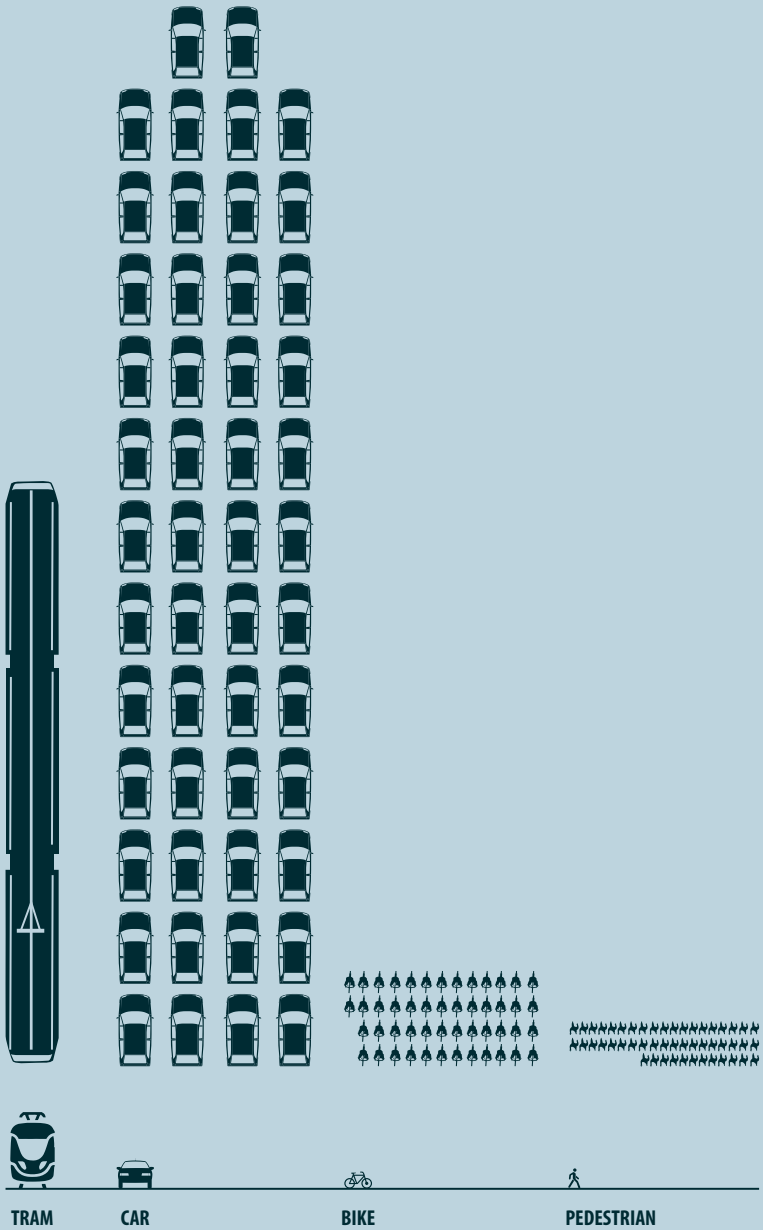
ROOM TO MOVE IN A DENSE CITY

Amsterdam ranks among the top ten of the world's most attractive cities in which to live.[6] Part of that popularity is down to its small-scale character, the ability to cycle around and the quality of life. Yet this appeal has a downside. Public space is scarce, and space for walking, cycling, sports and playing is under pressure. Locals, tourists, visitors and entrepreneurs all seek to carve out a place for themselves. Motorists, fast cyclists, sauntering tourists, slow-moving seniors and children at play all make use of scarce space. Protecting the liveable quality of the city and providing sufficient room to move for everybody – young and old – is vital. That constitutes the value of the city, ensuring that everybody can continue to live here in a healthy and pleasant way.[7]



Healthy life expectancy according to level of education
Study of future public health (National Institute for Public Health, 2014), adapted by Urhahn

The growth of the city calls for increasing urban density and transforming areas. That opens up opportunities to create a more active city: by making sports and physical activity a structural component of the city, and also by providing space for pedestrians and cyclists. They deserve that space, because more than one third of the number of movements in the city are made by bike, while only a small portion of traffic space is allocated to it.[8, 9]



Use of space by different modes of transport
Cyclists and public transport users have much less space than motorists. Multi-Year Bike Plan 2017-2022 (City of Amsterdam 2017), adapted by Urhahn

AMSTERDAM ACTIVE DESIGN GUIDELINES

The *Amsterdam Active Design Guidelines* outline the building blocks with which to make the city more active.[10] Those guidelines are elaborated in this book. It aims to offer inspiration for city planners and designers working inside and outside municipal departments. The ambition is for them to take the promotion of an active lifestyle into account in all their decisions. To make a more active city, clear choices need to be made concerning the urban structure and layout of the city, neighbourhood and square. The book focuses on Amsterdam, but many design tools could also be applied in other cities at home and abroad.

Children (4–17 years)	Adults (18–54 years)	Older people (55 years and older)
		
1 hour per day moderate or vigorous activity	150 minutes physical activity of moderate intensity, spread over several days	150 minutes physical activity of moderate intensity, spread over several days
3x per week muscle and bone enhancing activities	2x per week activities that strengthen muscles and bones	2x per week activities that strengthen muscles and bones, combined with balance exercises
Avoid spending long periods sitting down	Avoid spending long periods sitting down	Avoid spending long periods sitting down

Dutch physical activity guidelines
adapted by Urhahn

Document structure

The active city highlights three themes: 1) Cycling & walking, 2) Sports, and 3) Play & relaxation. Each theme is introduced with an opening essay that describes its essence and lists ambitions related to this theme. These are elaborated in concrete design tools. The ambitions and design tools show how the active city can be designed. They are expressed and visualized in typical city fragments. These fragments are an abstraction of many neighbourhoods in Amsterdam and other cities.

After an historical overview, a range of experts shed light on each theme from various points of view. Articles and inspiring case studies explore the breadth of each theme. References in the articles and a closing index make the book easy to read and consult.

In closing, we indicate how designers and city planners can shape the active city in practice with the help of this book.

Structure of the active city, with themes, ambitions, design tools and inspirational projects

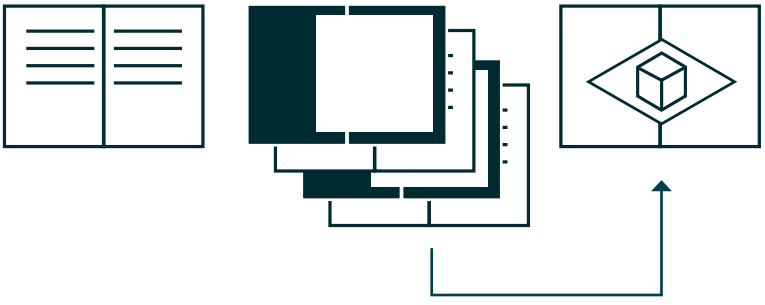
	Cycling & walking	Sports	Play & leisure activity
3 Themes			
10 Ambitions	1. Connected urban cores 2. Cycling and walking in a low-traffic neighbourhood 3. Shared streets 4. Safe and smooth public space for everybody	5. Open sports 6. The city as gym 7. Water is active space	8. Places without borders 9. The low-traffic neighbourhood for play and leisure activity 10. Attractive greenery
58 Design tools	25 design tools	17 design tools	16 design tools
18 Inspirational projects	7 inspirational projects	7 inspirational projects	4 inspirational projects

Structure of the book per theme/chapter

Introductory remarks and introduction to the ambitions

Articles and inspirational projects

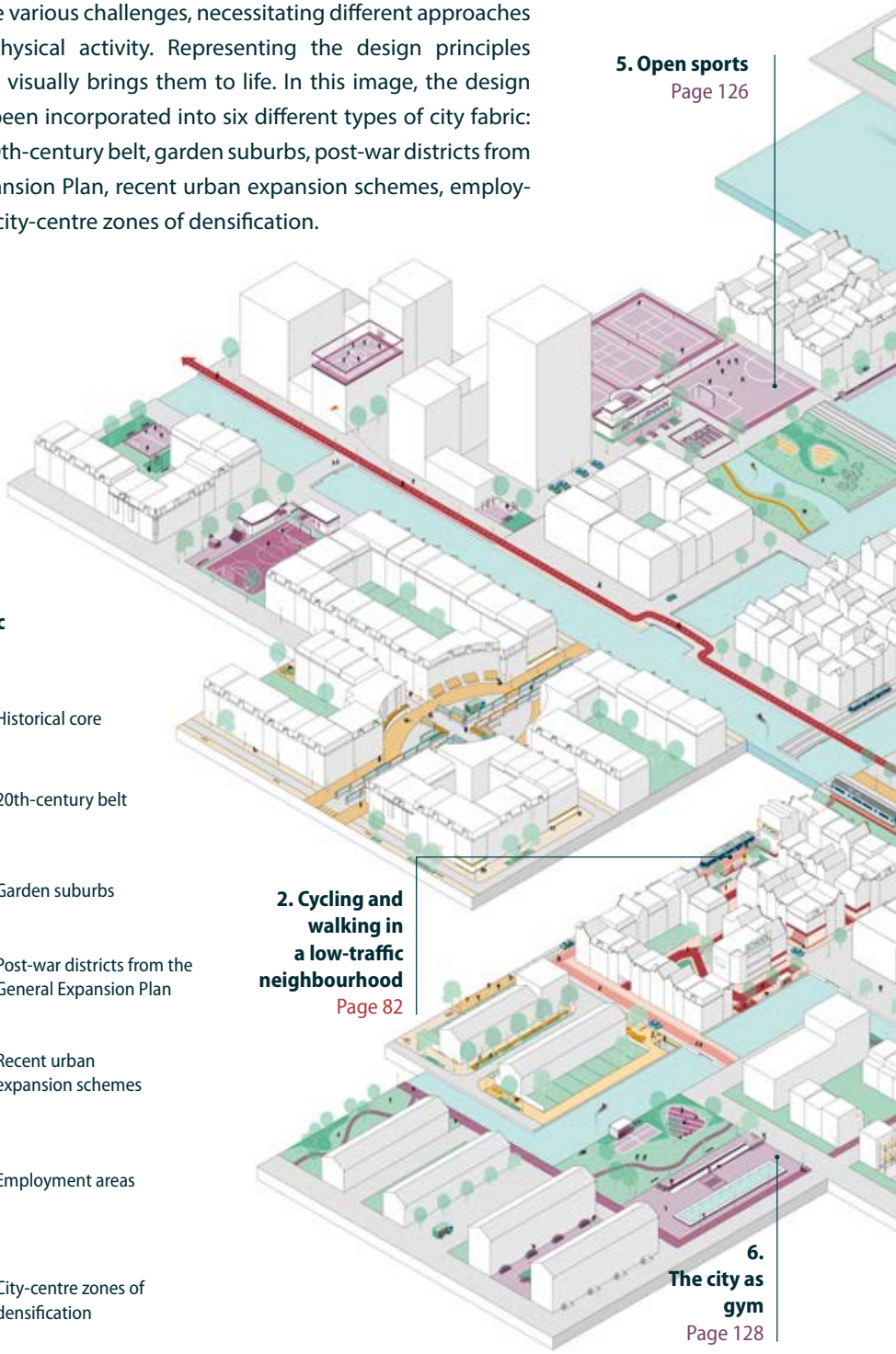
Designs tools categorized according to ambitions



The articles and inspirational projects elaborate into design tools

Ambitions in perspective

Amsterdam is an active city, but it can improve. This image shows that various areas face various challenges, necessitating different approaches to promoting physical activity. Representing the design principles and design tools visually brings them to life. In this image, the design principles have been incorporated into six different types of city fabric: historical core, 20th-century belt, garden suburbs, post-war districts from the General Expansion Plan, recent urban expansion schemes, employment areas, and city-centre zones of densification.

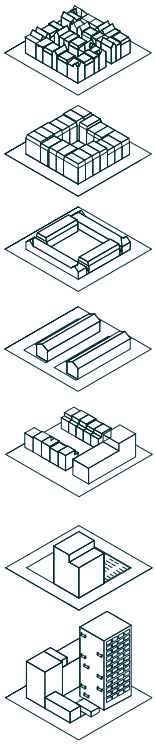


5. Open sports
Page 126

2. Cycling and walking in a low-traffic neighbourhood
Page 82

6. The city as gym
Page 128

Types of city fabric



Historical core

20th-century belt

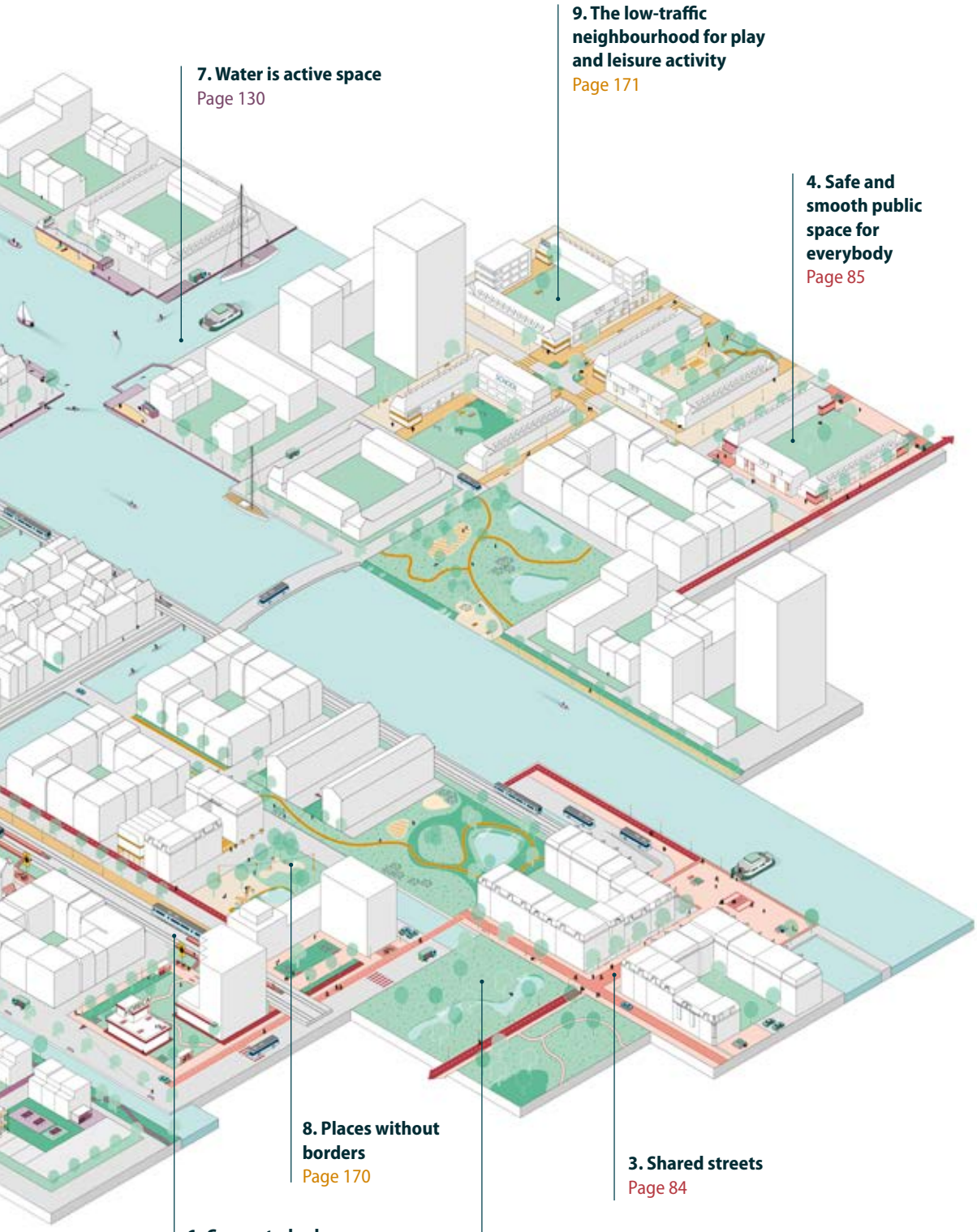
Garden suburbs

Post-war districts from the General Expansion Plan

Recent urban expansion schemes

Employment areas

City-centre zones of densification


7. Water is active space
Page 130
9. The low-traffic neighbourhood for play and leisure activity
Page 171
4. Safe and smooth public space for everybody
Page 85
8. Places without borders
Page 170
3. Shared streets
Page 84
1. Connected urban cores
Page 80
10. Attractive greenery
Page 172

Amsterdam in perspectiue

The inspirational projects


Noorderpark
Page 160
De Ruijterkade
Page 52
Roeterseiland
UvA
Page 38
Sarphatistraat
Page 50
Nesciobrug
Page 62
Blijburg
Page 146
Meerpark
Page 118
De Mirandabad
Page 116
Park Somerlust
Page 160
Spoorpark
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Cycling & walking

Cycling and walking

The active city is a vibrant city full of activity. People cycle or walk to work, school, friends or home. But there are also people on the move without any particular destination: strolling through the park, around the block or simply along a canal. On their way, they think things over and take decisions – some of them crucial (will I stop for that red light?), some less so (shall I take this route or that one?), some intuitively (can I pass or should I slow down?). When cycling and walking, you become part of the city, using all your senses, opening yourself up to others, making the city.

CITY STRUCTURE AND MODE OF TRANSPORT ARE CONNECTED

The city and how we use it has totally changed within a short space of time. In 1960 cars were reserved for the elite, and everyone else went by bike. From then on, the use of bikes fell sharply in comparison to cars, but since 1980 the bike has been making a steady comeback. The increase in the number of vehicles – in all shapes and sizes – has meant that we plan and use our city in another way. The connection between modes of transport and city structure becomes clear if we compare city centre neighbourhoods with outlying districts such as Buitenveldert, Nieuw-West and Zuid-Oost. The structure of the city centre is unsuitable for large flows of motorized traffic. Streets are narrow and there is limited space for parking. So people cycle and walk. Amsterdam Nieuw-West and Zuid-Oost, on the other hand, are designed for cars and public transport. The separation of functions means that distances to the city centre, residential areas and employment areas are long and, as a result, many people opt for the car, scooter or public transport.

MORE SPACE FOR CYCLISTS AND PEDESTRIANS

Current growth and the need to increase the density of the city necessitate a reconsideration of mobility. Good public transport and car access are no longer sufficient. Close-knit structures for cycling and walking are an essential component of any future mobility concept for the city. At the same time, another question arises in the city centre: how can we deal with the huge numbers of bikes (moving and parked) and pedestrians? Over the past 25 years, daily movements by bike have risen from 445,000 to 665,000.[11] Over the same period, the use of the car and public transport has declined.[12]

How can we provide more space for pedestrians and cyclists in a context where the number of inhabitants is rising, the population make-up is changing (more young people, more seniors), and a greater diversity of cyclists is emerging (from hesitant children to vulnerable seniors to fast pedelecs). The active city highlights four ambitions for cycling and walking.

The bike tunnel beneath the Rijksmuseum, perhaps the most beautiful cycle lane in the world. Besides basic conditions such as safety, directness, efficiency and comfort, the attractiveness of a route determines whether a cyclist chooses it or not. This cycle lane is certainly worth a detour.

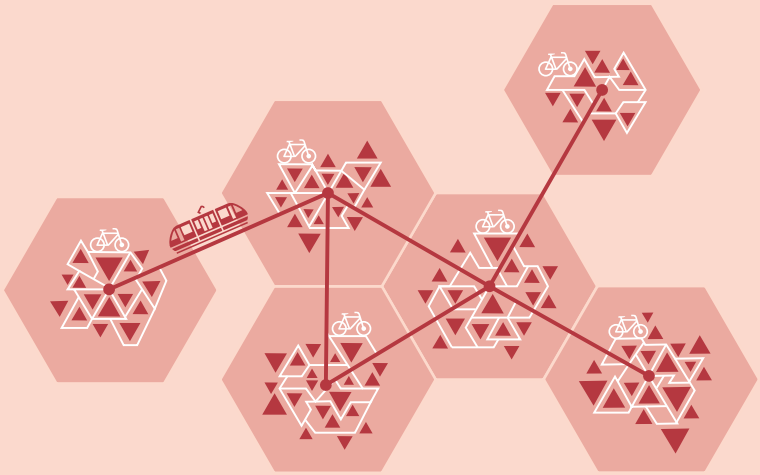
Ambitions for cycling and walking

Read more: article 'From door to door', page 54, article 'Walking through neighbourhoods and employment areas', page 64

See also: inspirational projects Haarlem–Amsterdam bike highway, page 60 and Nesciobrug, page 62

AMBITION 1: CONNECTED URBAN CORES

The city is expanding, and the distances and number of movements between city districts, the surrounding region and the city centre are increasing. Many people leave their neighbourhood every day to go to work or school, and large flows of commuters travel to and from employment areas every day. Good and rapid public transport, in combination with cycling and walking to and from public transport networks, offers a good alternative to the car. Good routes to and from public transport stops are crucial.



Connected urban cores and low-traffic neighbourhoods
Rapid public transport and good cycle lanes connect urban cores. The cores have mixed-use neighbourhoods that prioritize walking and cycling.

AMBITION 2: CYCLING AND WALKING IN LOW-TRAFFIC NEIGHBOURHOODS

Make low-traffic neighbourhoods with high densities and an intensive mix of functions. Distances are such that the bike is the most efficient mode of transport. Experience teaches us that people cycle more in mixed-use neighbourhoods than in mono-functional districts with a low (or lower) density.[13] The daily route – to work, pick up the children, buy groceries, sports activities – can be done by bike. As the distance to amenities increases, more use is made of the car and public transport.[14] In low-traffic neighbourhoods, the speed of the 'normal' city cyclist forms

Read more: article 'Everything nearby', page 40, article 'Eye contact, body language and a nod', page 46

the point of departure: both cars and bikes reduce speed, and large traffic flows are routed around the neighbourhood. This is an ambition for all neighbourhoods, inside and outside the A10 motorway. More mixed-use development and higher densities in mono-functional neighbourhoods outside the A10 ensure that people do not always have to leave their neighbourhood, and can go to work or school by bike or on foot.

AMBITION 3: SHARED STREETS

Give cyclists and pedestrians space. The bike has become a highly diverse mode of transport: from kids bikes and carrier bikes to fast e-bikes and speed pedelecs. More than a tenth of all kilometres cycled today are done by e bike. E-bikes are increasing the use of bikes for daily commuting to work over longer distances (7.5–10 km).[15] The diversity of speeds calls for clear choices. Amsterdam has a long tradition of combining – where possible – rather than separating traffic flows: 'traffic calming' instead of 'separating'.[16] This reflects the emancipation of the bike and gives it the prominent place it deserves. Streets for bikes, shared spaces and shared streets are good examples. Share space where possible and incorporate over-dimensioning in street profiles. Let everything flow together organically. Fast cyclists can also cycle more slowly. Ensure that the design of space guides this process. Interaction, or negotiated movement, often works better at low speeds than external traffic regulations. Many traffic lights can be removed. This approach means that speed pedelecs and racing bikes reduce speed in the city.

Read more: article 'Eye contact, body language and a nod', page 46 and article 'From door to door', page 54

See also: inspirational projects Sarphatistraat, page 50, and De Ruijterkade, page 52

AMBITION 4: SAFE AND OBSTACLE-FREE PUBLIC SPACE

Ensure comfortable, safe and obstacle-free routes, especially for vulnerable groups such as children, disabled people and seniors. They deserve space in the city in which they can walk and cycle slowly and safely. Low-traffic neighbourhoods create a safe environment. Clear street profiles with good sidewalks provide protection for pedestrians. Good pedestrian crossings prevent conflict with other, faster street users. Obstacle-free also means comfortable routes with few holdups, good cycle and walking surfaces and few interruptions.

Read more: article 'Walking through neighbourhoods and employment areas', page 64, and article 'A neighbourhood for life', page 74

The design tools per ambition in perspective, see page 80–85

Along the river IJ bank: the Oeverpark

A fantastic spot to hang out and take a relaxing walk on a sunny Sunday afternoon. The boats sail by, the water reflects the light, coots fight about nothing, kids are playing. An oasis of silence in the middle of the city, free of tumult, terraces and commerce. Not much is needed, but everything's right. Benches are placed in an appropriate distance, the water ensures constant actiuity and the residential buildings are placed back to keep a distance between the riverbank and the front yards.

Amsterdam world bike city

Change comes from the ground up

Pete Jordan
Pete researches and writes about bike culture in Amsterdam. He is the author of *City of Bikes*, which examines the history and culture of cycling in Amsterdam.

Marco te Brömmelstroet
Marco is associate professor at the University of Amsterdam and academic director of the Urban Cycling Institute. He specializes in the relation between space and mobility behaviour.

Ruth Oldenziel
Ruth is professor of the History of Technology at Eindhoven University of Technology and an Americanist. She is the co-author and editor of *Cycling Cities: The European Experience*.

The concentric structure of the city centre and the close-knit urban fabric of canals and narrow streets have been decisive for the success of the bike. Although profound changes took place in the city during the twentieth century – such as the large-scale expansion districts, the rise of the car and growth of suburbanization – cycling has survived all the changes. But it isn't just the city structure that has determined that success, because social urgency has helped power it too. Inhabitants continue to cycle and promote cycling, sometimes even going against the flow both literally and figuratively. Conversations with three bike experts – Ruth Oldenziel, Pete Jordan and Marco te Brömmelstroet – pinpoint moments in history that have been crucial for cycling in Amsterdam and what they can teach us about the future.

THE PERFECT STORM (1900 – 1960)

Up until the 1920s, the bike played a prominent role in all European cities, including Amsterdam. After 1920, public transport became a formidable competitor to the bike in many cities. Pete: "The high price of tram travel in Amsterdam and the supply of cheap bikes from Germany meant that cycling remained the best and cheapest alternative here." In addition, the city structure with its many canals, which can form barriers, hinders public transport and cars. Add to that the compact nature of the city and the flat landscape. Pete: "We call this 'the perfect storm'. Amsterdam possessed the ideal conditions to allow bikes to play a leading role."[17]

Trams and cyclists on Muntplein, 1924.

LONG LIVE THE CAR (1960–1975)

With the construction of the General Expansion Plan (AUP) by Van Eesteren, Amsterdam developed into a patchwork city made up of mono-functional residential and employment districts. The ideal of separating functions resulted in long distances within the city. The residents of neighbourhoods in Nieuw-West and Buitenveldert travelled every day to their work in the city centre or in employment areas far from their homes. Although the neighbourhoods were self-sufficient and planned as 'health machines' with lots of light, air and space, the result was large numbers of inactive motorists and tram passengers. Later, the Bijlmer district and growth centres (Purmerend, Alkmaar, Lelystad and others) increased distances and commuter numbers even further. Marco: "In these neighbourhoods you clearly see the effect of the urban structure on mobility choices. The bike infrastructure is perfectly good, but the distances between homes, shops and places of work are large. So people opt for the car or public transport, simply because it's too far to cycle."

The car became the standard mode of transport. Access from the motorways to both the expansion districts and the growth centres around Amsterdam was optimal. Even within the neighbourhood, cars were accorded plenty of space, with generous access routes and plenty of parking spaces, often free, nearby. Ruth: "Separating cars and bikes was the prevailing philosophy, especially to ensure a smooth flow of cars."

The increase in car use also influenced the city centre: use of the bike declined dramatically throughout the city, just as in other cities. Large-scale building demolition, a common occurrence at the time, was, however, limited to Wibautstraat, Meester Visserplein and Valkenburgstraat.

Burgemeester Roëllstraat in 1980. Public space in the western garden suburbs was designed for the car.

PROTEST FROM SOCIETY (1975–1990)

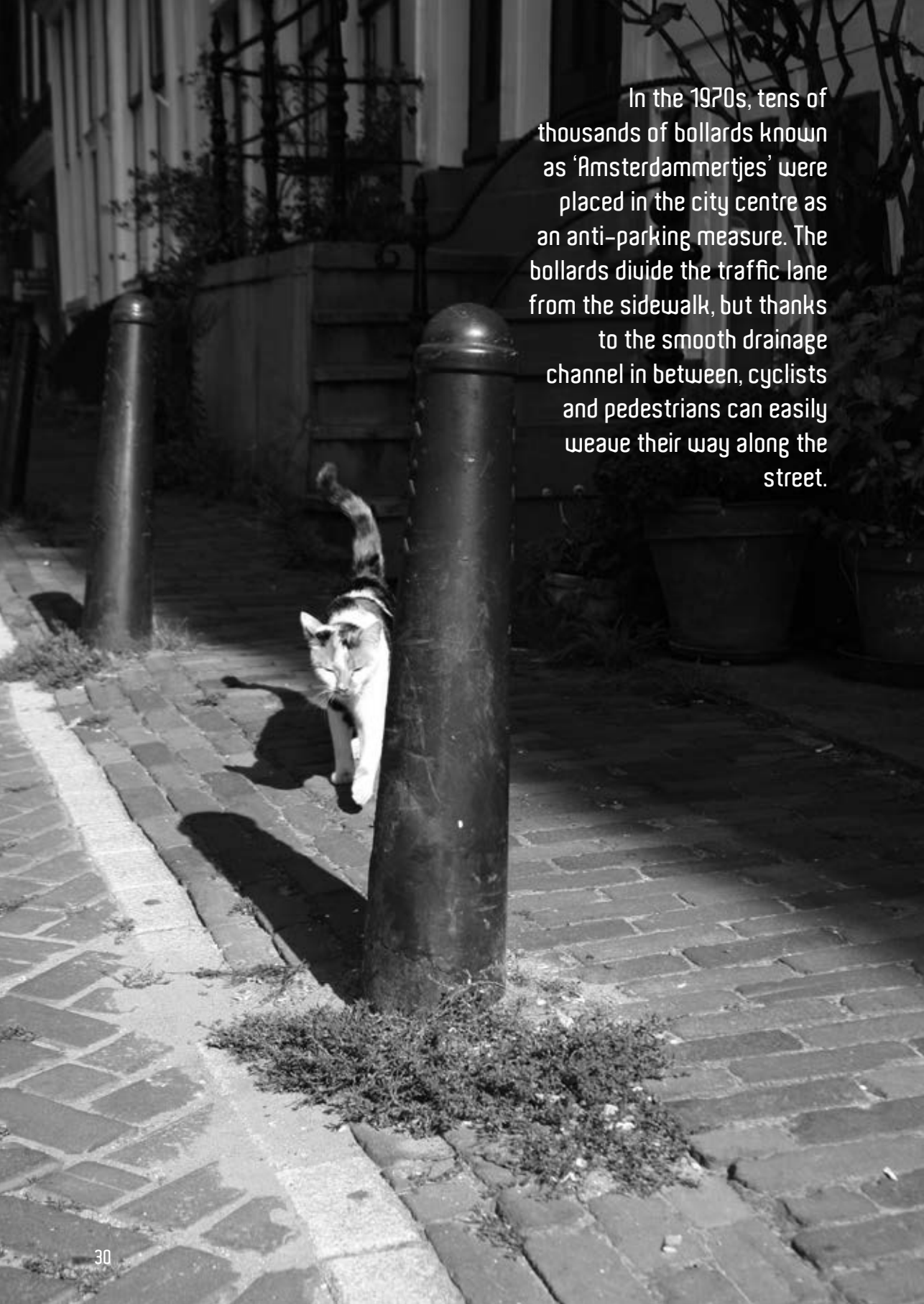
The car as the ultimate mode of transport wasn't the only major effect on the city structure. Owing to the development of districts like Bijlmer and later the growth centres, public transport gained in importance. Construction of the new metro was intended to connect Bijlmer with the city centre. But the construction of a 3.5-kilometre-long metro tunnel meant that a large part of the Nieuwmark district had to be demolished. Once the metro was finished, this dilapidated district would rise again as a large-scale city district with wide thoroughfares, offices and shops. But implementation of this project sparked massive protests from all strata of society, from squatters to building conservationists.

After years of car-orientated policies and expansion of the public transport network, coupled with a dismissal of the interests of cyclists and pedestrians, the metro scheme unlocked a broad counter-movement. This culminated in the spring of 1965 in the Nieuwmarkt riots: an appeal from residents to preserve the liveable city. Marco: "This protest was not just about the demolition of buildings. You can see the Nieuwmarkt riots as the first riots provoked by space and mobility issues in the history of the city." Construction of the metro triggered the protests, but a more fundamental question lurked in the background: how can you sustain the vitality of a city with a small-scale structure without tampering with its essence?[18]

Protest poster from 1980.

Ruth: "Changes in choices for the bike or car are always based on a 'bottom-up movement'. A critical population emerged and stood up for the interests of residents." This resulted in greater attention for the existing city, its small-scale character and the importance of liveability. The bike was a powerful symbol ('A bike is something, but also nothing') and benefitted directly from these protests.[19]

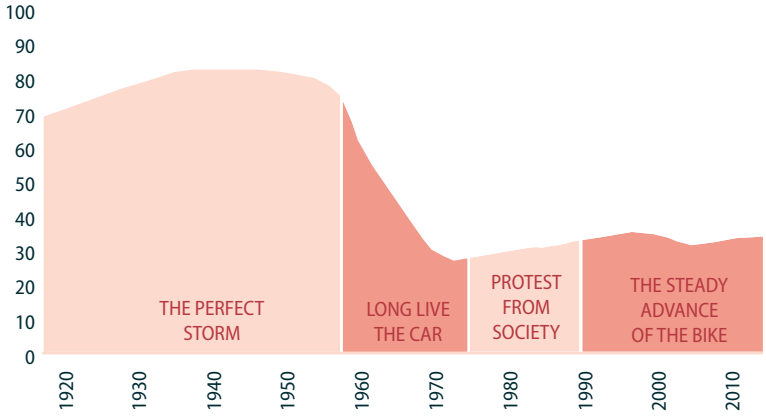
'Safe Traffic' action committee on Waddenweg, Amsterdam-Noord, c. 1975.



In the 1970s, tens of thousands of bollards known as 'Amsterdammertjes' were placed in the city centre as an anti-parking measure. The bollards divide the traffic lane from the sidewalk, but thanks to the smooth drainage channel in between, cyclists and pedestrians can easily weave their way along the street.

THE STEADY ADVANCE OF THE BIKE (1990–2017)

In 1992 Amsterdam held a referendum to decide on the further reduction of car traffic in the city centre. The people of Amsterdam voted by a small majority in favour of a policy aimed at a low-traffic city centre. City-centre residents in particular came out in favour of the low-traffic plan, since they experienced most disturbance. Plans included measures such as reducing the number of parking places, constructing parking garages around the centre, introducing paid parking and one-way traffic on main roads, and improving public transport. But these measures were implemented in dribs and drabs. Even so, a lot has changed, and more and more attention is given to bikes. Ruth: "The principle of traffic calming by combining bikes and cars, rather than separating traffic flows, became common." The typical steel traffic bollard known as the 'amsterdammertje' is perhaps the ultimate symbol of this concept. Cyclists enjoy unlimited space and can meander their way through traffic along streets and sidewalks without height differences. Restrictions are put on parked cars. Cyclists can manoeuvre quickly, pass cars and use space in a flowing, flexible manner.



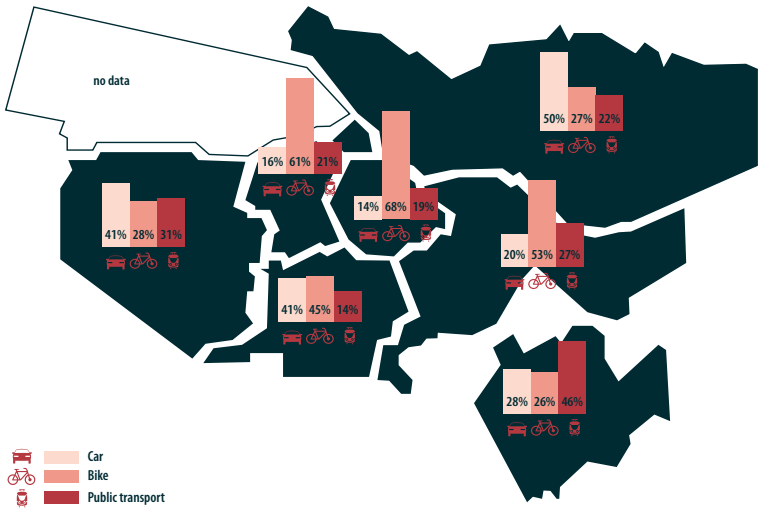
Bike use over the past century
The bike as a proportion of total traffic. Oldenziel, R. et al. (2016). Cycling Cities, The European Experience (2016), adapted by Urhahn

AMSTERDAM WORLD BIKE CITY

To this very day, the small-scale structure of Amsterdam within the A10 motorway has had a positive effect on the feasibility of cycling and walking in the city. This is what makes Amsterdam an attractive business location. For many people, cycling is a symbol of urbanity and part of a lifestyle. Ruth: "This is based on the idea that active mobility – walking and cycling – is the true economic engine of the city."

For the Nieuw-West and Zuid-Oost districts too, the urban structure and the relation with the city centre still exert an effect on movement statistics among inhabitants. Easy access to the motorway network, the metro lines, the long distances and free parking all dissuade many people from cycling to the city centre or to their place of work. The density of these city districts is now being increased 'rapidly'. Marco: "Amsterdam is evolving from a concentric into a polycentric city. I see the emergence of more and more neighbourhoods with a core of mixed amenities, where residents walk and cycle. For instance, take a walk on Saturday afternoon along Tussen Meer. Jane Jacobs meets Le Corbusier here: small shops on the lower floors of the residential blocks. This vibrant street constantly changes colour. It's something that's often happened in recent decades: the evolution from furniture shops to kebab restaurants to a street lined by sidewalk cafés."

Conditions for cycling and walking improved as a result. Good public transport supports this: rapid public transport (metro or fast tram) is the best option for moving between districts. Public transport becomes an extension of the city of bikes and pedestrians.



Relation between use of car, bike and public transport in each city district
Mobility study in Amsterdam (City of Amsterdam 2013), adapted by Urhahn

THE ACTIVE CITY OF THE FUTURE

The city has reached another turning point today. In the past, change was brought about not just by mobility factors. The past teaches us that five factors – in every-changing interrelationships – determine the success of the bike and the turning points that have been to its benefit: an urban structure that encourages cycling, the lack of (affordable) alternatives to the bike, social pressure from the bottom up, policy choices and, finally, the positive image of cycling.[20]

Conditions are favourable, and further growth in walking and cycling is expected. The urban structure, enhanced by future densification and mixing of functions, is ideal, the bike has never had a more positive image, cycling is a focus of policy, there is a lack of mobility alternatives (simply because of a lack of space), and there is strong grassroots pressure. A new 'perfect storm'? The social movement is formed by a new generation of city dwellers and entrepreneurs, and tourists in their slipstream. They are claiming the streets for walking, cycling, sports and playing. They recognize that prioritizing cyclists and pedestrians contributes to a good business climate and to the economic viability of the city. They want their children to grow up safely in the city. Cycling is social, healthy and economically good for the city.

Ruth: "The city is already transitioning into a city of bikes as a result of policies that have been put in place since the 1992 referendum and aimed at restricting cars. Now, however, design must be based on the bike, the pedestrian and public transport. That is not happening yet. It is too defensive. Dare to be visionary as a city. Embrace the status as world bike city." Marco: "The vision for Amsterdam should not be based on mobility but on a liveable city in which people can move around comfortably."

Marco: "Let's start by once again considering public transport as public space instead of traffic space." Designs are still based on the speed of public transport and car traffic, but we should think in terms of the user. Take the Roeterseiland university campus: originally made for cars, now completely car-free. Today the underground car parks are filled with bikes, while students and staff enjoy lunch on the former parking spaces along the quays."

Alongside investments in a slow-traffic network, the city should invest in a rapid public transport network. The fast tram and metro are excellent modes of transport for longer distances within the city and region.

The network doesn't have to be too close-knit. It supports cycling and walking locally. Design this as one system. Marco: "Investing in a metro line to the western garden suburbs boosts cycling enormously." By facilitating the mobility chain, we stimulate movement among all inhabitants. Pete: "But don't forget to continue investing in bike infrastructure."

And bike parking? Pete: "Bike parking around stations is often mentioned as a problem. But don't forget that the parking problem has always existed. It was even there in the 1960s. Take cyclists seriously and allocate them space to park their bikes. Mahlerplein bike parking station is a good example of that."

Finally. Marco: "Amsterdam has moved past the stage of applying general standards and guidelines. To keep in front, the city will have to experiment: with new techniques, with types of parking, with sharing concepts, with shared spaces, and with smart mobility concepts." In short, there is still a world to be won in developing Amsterdam further as an even more attractive city of bikes. This wonderful challenge is about much more than just mobility.

The image of cycling is more positive than ever.

Mahlerplein
bike parking station

A modern bike parking station, 3000 bikes at Station Zuid, in the heart of Zuidas

An illustration of design tool 1.6 Bike parking stations linked to public transport, page 80

The secure bike parking facility at Station Zuid, a point of economic concentration and important public transport interchange, functions in the system of transport to and from the metro and train. The station can accommodate 3000 bikes, replaces 1500 parking spaces at street level, and also provides sufficient places for carrier bikes and e-bikes. The high-quality appearance reflects the image of Zuidas.

An illustration of design tool 1.5 Good approach routes, page 80

Parking bikes below ground ensures more quality space at street level. The exit from the bike station is located on Mahlerplein. There is an efficient, direct route from there to the railway station and surrounding office complexes. Such a clear route is vital in the chain from bike to public transport and saves lots of time and bother.

Client: City of Amsterdam
Design: studioSK

First class bike parking

Roeterseiland university campus

A completely car-free, city centre university campus

An illustration of design tool 2.3 Low-traffic networks, page 82

The Roeterseiland campus originally parking spaces and was accessible by car. The campus was recently made car-free.

An illustration of design tool 2.7 Bike parking stations in built-up areas, page 83

The car parks are now used as bike parking stations, which means that the public space offers room for greenery and activities.

The car-free campus offers students and staff a pleasant environment in which to walk and use the space between the university buildings. But local residents also walk through what was previously an inaccessible area. The metro is a short distance away on foot.

Client: University of Amsterdam
Design: City of Amsterdam

An illustration of design tool 2.11 Walking routes in employment areas, page 83

Students and staff sit in the sun, eat lunch or enjoy a beer from Crea on the steps along the quays.

Everything nearby

Tess Broekmans
Tess is an urban designer and partner at Urhahn. She lives and works in the Nieuwmarktbuurt neighbourhood in Amsterdam.

In many European cities, and in Amsterdam in particular, the bike is the ideal mode of transport, and walking is a relaxing activity. Cycling and walking are not only entirely possible, they are also the most efficient way to get around the city. Jane Jacobs spoke of the 'sidewalk ballet', the site of urban interaction. Jan Gehl introduced America to the European city. What makes Amsterdam so attractive for cyclists and pedestrians?

The low-traffic neighbourhood is the place where everything comes together, with everybody aware of other users. Also, this is the place where people greet one another.

MIXED-USE DEFINES THE NEIGHBOURHOOD

Cycle lanes are not solely responsible for the success of cycling in the city. The presence of amenities within walking and cycling distance forms the key to the Dutch city. Historical cities arose at about one day's journey from one another. People could travel on foot from the countryside to the market and back home in one day. In later periods the horse-drawn vessel and the tram determined the action radius. When the car came on the scene, the principle of proximity was abandoned in many European cities, although the Dutch situation is slightly different. Here, luckily, the supermarket is still within cycling distance, unlike in France where it is located on the edge of the city and surrounded by a vast car park. The school and swimming pool are also located in the neighbourhood. Cycling has become the measure for urban design. A quarter of an hour on the bike gets you anywhere. What did disappear from city neighbourhoods, however, was employment. It moved to industrial parks and business parks on the edge of the city. Many people have turned to the car as a result. Some neighbourhoods in the centre of Amsterdam are an exception, and that is what makes the bike the ideal mode of transport for many people. Interestingly, neighbourhoods with a good balance between living and working – the Nieuwmarktbuurt, the Weteringbuurt, the Pijp and the Concertgebouwbuurt – are the most liveable neighbourhoods in the city.[21]

DENSITY AS OPPORTUNITY

The popularity of the city means that we are now entering a new phase of development. Working in the centre is popular again, and tourism adds pressure to the city. Increasing density allows us to make more mixed-use neighbourhoods. The polycentric city is taking shape, with neighbourhood cores and main streets outside the centre also offering a mixture of uses. A metropolis can also be conducive to cycling, and achieving that is the aim for the coming decades.

PEOPLE WATCH OUT FOR ONE ANOTHER

Many modes of transport use the same space in the city: cars, scooters, bikes, pedestrians. Almost always without difficulty. Road users are accustomed to negotiating with one another. A zebra crossing is not sacrosanct in the city, but people are nonetheless alert. City dwellers are sometimes drivers, sometimes cyclists, sometimes pedestrians. Everybody knows the roles of others, and so routes are safe and attractive. Separate cycle lanes work well on busy thoroughfares, while various road users can share space on quieter streets. In low-traffic neighbourhoods, it is possible to combine traffic flows and roads (streets for bikes, shared spaces, normal streets), and separate only where essential (on busy streets). The low-traffic neighbourhood is the place where everything comes together, with everybody aware of other users. Also, this is the place where people greet one another.

In the low-traffic neighbourhood, road users consider other users. If the sidewalk doubles as an outdoor seating area, the pedestrian steps off the edge. The narrow street ensures that cars and cyclists can adjust their speed.

LEARNING FROM A YOUNG AGE: IT'S POSSIBLE IN THE NIEUWMARKTBUURT

The Nieuwmarktbuurt is one such sheltered, liveable neighbourhood. Cycling or walking to primary school is the most natural thing in the world here. Children walk and cycle not only to and from school, but throughout the day. The gym is five minutes on foot, the playground three minutes. Small children use the schoolyard, and other ones go to De Waag playground.

De Boomspijker community centre provides after-school care and courses in everything from judo to violin. Members of the painting society sit and sketch on Nieuwmarkt. There is an unbroken network of low-traffic streets, bridges and squares. All a child has to do is leave a note stuck on the door when heading out to play. That daily routine means that from the age of ten, children can travel on their own to the

A neighbourhood with an intensive mixture of functions. Everything can be reached on foot or by bike (design tool 2.2 Intensive combination of functions).

A network of comfortable, smooth, low-traffic streets and squares, with as starting point the speed and safety of children and seniors (design tool 2.3 Low-traffic network).

Busy and fast routes for cars and bikes are routed around the neighbourhood (design tool 2.4 Encircled by busy routes).

football club, twenty minutes away in Watergraafsmeer. The compact city that lacks space for a large community school with all sorts of amenities under one roof proves to be a blessing in disguise. It teaches children to look after themselves and use the city. It is the perfect learning experience to raise children as responsible city dwellers and road users. No 'back-seat generation' in Amsterdam.

The success of the city of bikes and pedestrians is not just a spatial matter, but also a social and cultural one. The city will change in the coming years, perhaps faster than we can envisage. Our job as designers and city planners is to recognize these qualities and value their complexity A bridge for bikes across the IJ is not enough. It also has to be well-connected and socially safe. And importantly, it has to make people happy they live in Amsterdam. Getting around is not a challenge here, but the basis of a socially functioning city.

1.1 Dense, mixed-use neighbourhoods
1.2 Amenities in the city
page 80
2.1 Human scale
2.2 Intensive combination of functions
2.3 Low-traffic network
2.4 Encircled by busy routes
2.5 Close-knit structure
2.9 Car-free schools
page 82

The Nieuwmarktbuurt has various facilities in the neighbourhood. The gym, playground and after-school care facilities are all within a short and safe walking distance.

Children can cross the road on their own without difficulty: cars travel on a narrow traffic lane with a bumpy cobbled surface. The edge of the sidewalk is clearly marked (stop!). But the traffic lane and sidewalk edge are on one plane, so that road users perceive the space as one entity and disabled people can cross easily.

Eye contact, body language and a nod

Marco te Brömmelstroet
Marco is associate professor at the University of Amsterdam and academic director of the Urban Cycling Institute. He specializes in the relation between space and mobility behaviour.

Half past eight in the morning, on my way to my first cup of coffee. I cycle through the city. I approach a crossing and navigate to the other side in seemingly relaxed fashion. But my subconscious mind processes a vast amount of data in a tiny space of time. Within a few milliseconds, I take in the position, direction and speed of dozens of cyclists, pedestrians and vehicles. Out of the corner of my eyes I translate body language and pedalling frequency into intentions. I process the colours of bikes, cars and number plates into decision information. I estimate the frequency with which traffic lights change, and my body immediately converts all this into action: stop pedalling briefly, veer slightly to the right and give an almost imperceptible nod. Three seconds later I depart the stage, heading for the next one. Behind me, the dance continues.

LONG-TERM SAFETY! WHO COULD OBJECT TO THAT?

The Netherlands is known all over the world for the consistent design of its road network. Since the 1970s, modes of transport have been separated as much as possible. Encounters between modes are regulated (by means of, among others, traffic lights) and speeds reduced. These measures have had a positive effect on traffic safety and the increase in the use of bikes.[22]

This design logic can be seen as a fitting response to the rise of the car, and much can be learned from it all over the world, especially in places where the car dominates. The car is heavy and fast and has a big impact on other road users. Of greater importance is the communication barrier created by the cocoon of the car. Thomas Schelling argues that "the market […] for right of way at an intersection will fail because drivers of competing cars and trucks have no way to communicate offers and agreements".[23] The technology has to dominate to let it work.

Related design tools for this article:
2.1 Human scale
Page 82
3.1 Shared streets
3.2 Separate speeds
3.3 Adapted speeds
Page 84

In more and more places, especially in city centres, it is no longer the car but the pedestrian and cyclist who dominate, and their impact is much smaller. Both are open to interaction with various senses: eye contact, body language, a nod, or even avoidance of eye contact. Precise decisions can be taken immediately on the basis of information exchanged. Users can maintain momentum while the whole system continues to function. Separation and regulation are no longer necessary. This offers opportunities to restore the human scale.

FROM TRAFFIC SPACE TO PUBLIC SPACE

All of this makes it possible to design streets as public spaces instead of traffic spaces. This may be self-evident along the canals in the city centre. But in other places, too, we see steps to prioritize cyclists in design schemes. More space for interaction is being created at intersections. Cars on De Ruijterkade are now rerouted through a tunnel, leaving the street above to tens of thousands of pedestrians and cyclists, tourists and locals. Although more space for interaction and fewer regulations lead to slightly more stress and friction, the benefit is more social interaction. The redesigned Sarphatistraat is perhaps still a traffic space, but there is now much more space to negotiate with fellow users. The upshot is a big increase in the number of cyclists who choose this route and high scores in terms of comfort experience.

In more and more places it is no longer the car but the pedestrian and cyclist who dominate. Separation and regulation are no longer necessary. This offers opportunities to restore the human scale.

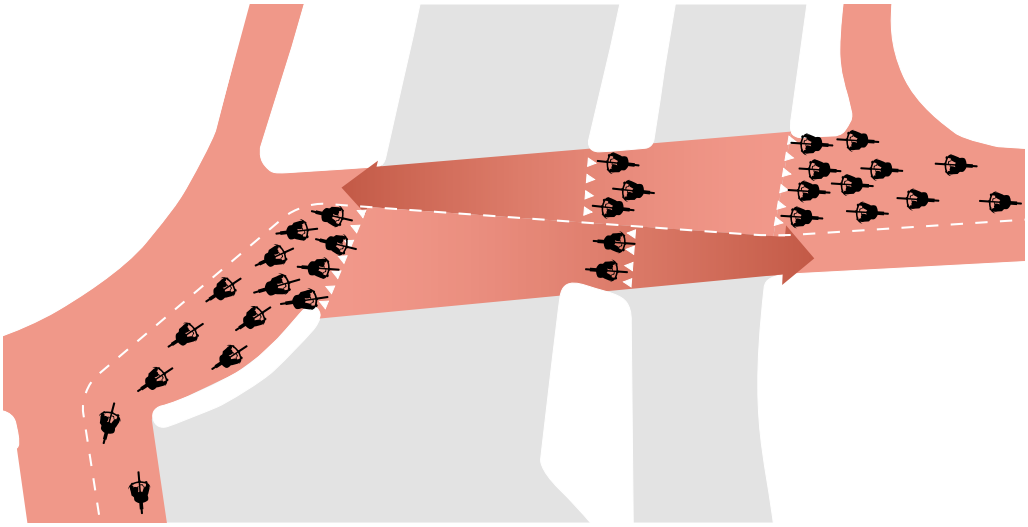
THE POWER OF SELF-ORGANIZATION

The information exchange outlined above, and the constant negotiations conducted by cyclists and pedestrians as they move, have far-reaching consequences. Movement in public space is good not only for body and mind but also for social capital.[24] It brings people actively in contact with the 'other' and teaches them to give and take. Sometimes you win, sometimes you lose. But the game itself is tolerant. And formative: studies show that removing external rules leads to more altruistic behaviour. Theory indicates that this possibly enhances mutual trust and reduces the number of prejudices. So even if an interaction is unpleasant, or sometimes outright rude, it is ultimately better for you than the solitude of a sealed cocoon.

Sharing space with pedestrians is fine in places where there is plenty of activity.

We are only beginning to understand the process of self-organization among cyclists and pedestrians. It seems that this does not always function optimally. The choreography needs space. In addition, a fairly specific level of sharing is needed. There must not be too much difference in speed, for example, but there should not be complete homogeneity either. The same goes for assertiveness and dominance. Reducing the overall speed lowers the threshold for vulnerable groups. The intrinsic rules of this game, which can best be compared to the behaviour of a flock of starlings at sundown, ensure a safe environment for participants. But this game can also exclude outsiders. A diverse and context-sensitive handling of this solution is essential: sharing space with pedestrians is fine in places where there is plenty of activity (De Ruijterkade), but it is less logical along routes with high levels of through traffic (Sarphatistraat during the morning peak hours).

Mr. Visserplein is one of the busiest intersections and cycle routes in the city. Lanes for cyclists have recently been widened, zebra crossings shortened and the surface markings adjusted. Most striking of all are the asymmetric profiles of the wide lanes for cyclists and smaller strips for the other lanes. A separate section is marked out for cyclists turning off onto Valkenburgerstraat. Since the introduction of the changes, the flow of cyclists has been much smoother.



Sarphatistraat

The transformation of a street for traffic into a street for bikes

An illustration of design tool 1.7 Direct cycle routes, page 80

Sarphatistraat bike street is the first stretch of an ambitious bike ring around the centre. A through route that connects city districts with one another.

An illustration of design tool 3.1 Shared streets, page 84

The car is a guest. Various modes of transport travelling at more or less equal speeds share the space. The street profile is generous, making it easy to pass one another. A heavily used bike street is possible here because the number of pedestrian crossings is limited. Streets for bikes are less suitable on busy shopping thoroughfares.

An illustration of design tool 3.3 Adapted speeds, page 84

Fast cyclists and cars adjust their speed. The street layout demands this, because there is just one lane shared by all users. The 30-km speed limit applies to cars, scooters and bikes.

Client: City of Amsterdam
Design: City of Amsterdam

Dare to experiment. Since Sarphatistraat was redesigned as a street for bikes, the number of cyclists has increased significantly. The danger of this street is that it is a city route shared by users travelling at various speeds (e-bike cyclists and scooter riders). Speed differences can marginalize slower users. When speeds are too fast, eye contact is lost, and public space becomes traffic space again.

De Ruijterkade shared space

A traffic tunnel and shared space used by tens of thousands of pedestrians and cyclists every day

An illustration of design tool 3.1 Shared streets, page 84

A tunnel for cars has been constructed beneath De Ruijterkade. Other users and routes come together at ground level above: cyclists, scooter riders and pedestrians travelling between the ferry, station and city. Because these modes of transport all move at roughly similar speeds, they can mingle within a shared space. The space is designed as one plane with as few traffic rules as possible, but it does encourage users to reduce speed. Everything is detailed in one material. There are no unnecessary rules or traffic measures. Mixing modes and self-regulation increase awareness and traffic safety.

Client: City of Amsterdam
Design: City of Amsterdam

From door to door

The bike as a healthy alternative for daily commuting

Sjoerd Feenstra
Sjoerd is an urban design strategist and partner at Urhahn. He commutes regularly by bike between his home in Haarlem and his work in Amsterdam.

The benefits of cycling are demonstrated every day in the city. There is no better way of getting from A to B. But it isn't just in the city that bikes prove better than cars and public transport. For longer distances too, bikes, whether electric or not, can compete well with other modes of transport. Cycling saves not only money but also time and energy. Moreover, it benefits the environment and our health.

GRIDLOCK AND OVERCROWDED TRAINS

With the introduction of the e-bike, and especially speed pedelecs, distances of up to thirty kilometres can be covered in under an hour. That had already been easy for the growing numbers of racing bike enthusiasts. These developments offer a new perspective on daily commuting. Many people working in Amsterdam live elsewhere in the region. The majority of these commuters experience the daily hassle of traffic congestion or overcrowded trains. Are bikes and e-bikes the solution?

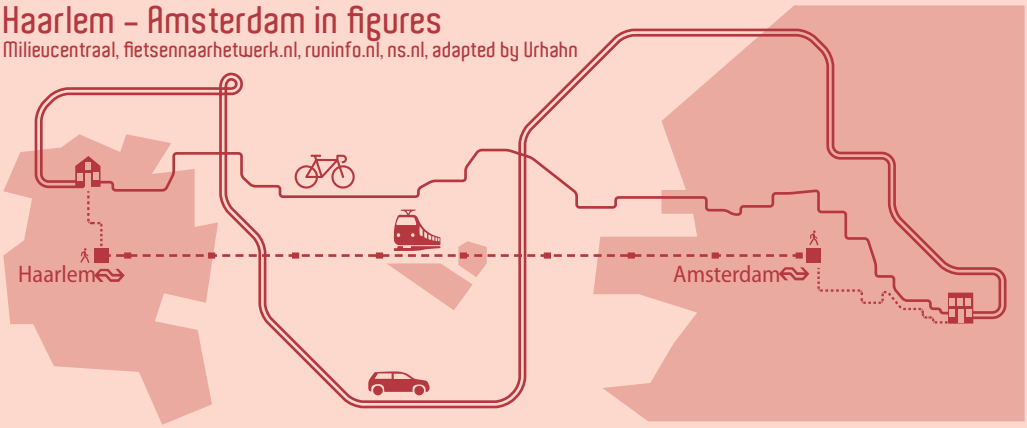
PUT TO THE TEST

We put this to the test on the Haarlem-Amsterdam route by comparing four modes of transport – car, train, racing bike, speed pedelec – on the journey from a random address in Haarlem-Noord to a random one in the centre of Amsterdam. We compared journey time, distance travelled, costs, environmental impact and energy consumption.

One great quality of this route is the pleasant green surroundings. It isn't until Haarlemmerplein that cyclists encounter cars. From that point on, the art is for cyclists on racing bikes or e-bikes to adjust their speed to accommodate fellow road users.

Haarlem – Amsterdam in figures

Milieucentraal, fietsennaarhetwerk.nl, runinfo.nl, ns.nl, adapted by Urhahn



CAR

33 km

45 min

journey time: 40 minutes, average delay in morning rush hour: 5 minutes

CO_2
7029 gram

33 km x 213 gram per km (based on 1 person)

63 kcal

€ 6.27
19 ct /km

TRAIN

21.3 km

bike (1 km), train (18 km) bike (2.3 km)

38 min

bike to station, inc. parking (8 min.), average wait at station (5 min.), journey time in train (15 min.), walk to bike shed (3 min.), cycle to destination (7 min.)

CO_2
0 gram

(based on electric train on green energy)

128 kcal

107 kcal (cycling)
+ 21 kcal (sitting)

€ 2.34
13 ct /km

RACING BIKE

24 km

average speed 29 km p/h,

50 min

CO_2
0 gram

867 kcal

€ 2.40

Based on distance per year: 4,000 km

SPEED PEDELEC

24 km

average speed 34 km p/h,

42 min

CO_2
144 gram

6 gram/km

533 kcal

€ 4.25
17.7 ct / km

On a sunny, summery morning, a colourful procession of cyclists meander their way through the landscape between Haarlem and Amsterdam, equipped with rucksacks for clothes, a towel and a pair of shoes.

THE BIKE WINS (USUALLY)

This comparison reveals that the fastest mode of transport (bike-train combination) on this route averages 12 minutes faster than the slowest mode (racing bike). In all other respects, the racing bike and speed pedelec score better than the car and train. Health and happiness benefits were also studied. Cycling for half an hour a day makes you fitter, more productive, lighter, happier and financially better off.[25]

CONDITION(S)

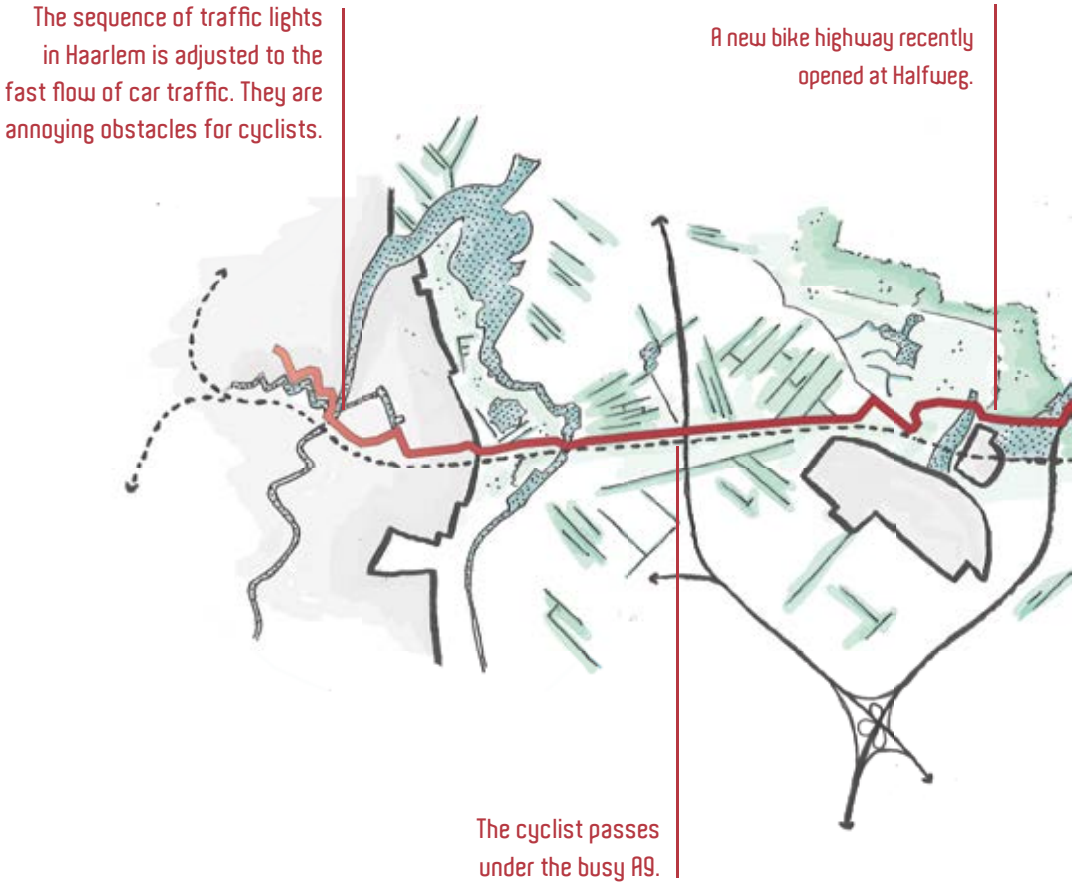
These are convincing arguments to look specifically at the way the cycling commuter moves through the city and landscape. Which spatial conditions benefit cycling commuters? What can be improved? Once again, let's take a look at the Haarlem–Amsterdam bike route.

FROM DOOR TO DOOR

On a sunny, summery morning, a colourful procession of cyclists meander their way through the landscape between Haarlem and Amsterdam, equipped with rucksacks for clothes, a towel and a pair of shoes. It doesn't take much time to get out of Haarlem. The only bothersome obstacles are the traffic lights, which are programmed to let cars flow smoothly. But once out of the city, cyclists enjoy an uninterrupted journey through an occasionally idyllic Dutch landscape of dikes and polders, sporadically interrupted by the noise of cars, trains and airplanes. At Halfweg there are a few bends, but after that comes the ultimate for the fast cyclist: a smooth, wide, deep-red stretch of flat asphalt. This bike highway penetrates deeply into Amsterdam. Cyclists travel as far as Sloterdijk Station

A pleasant landscape setting makes cycling an attractive alternative to the car or train. You can pedal fast here along a comfortable surface and efficient route.

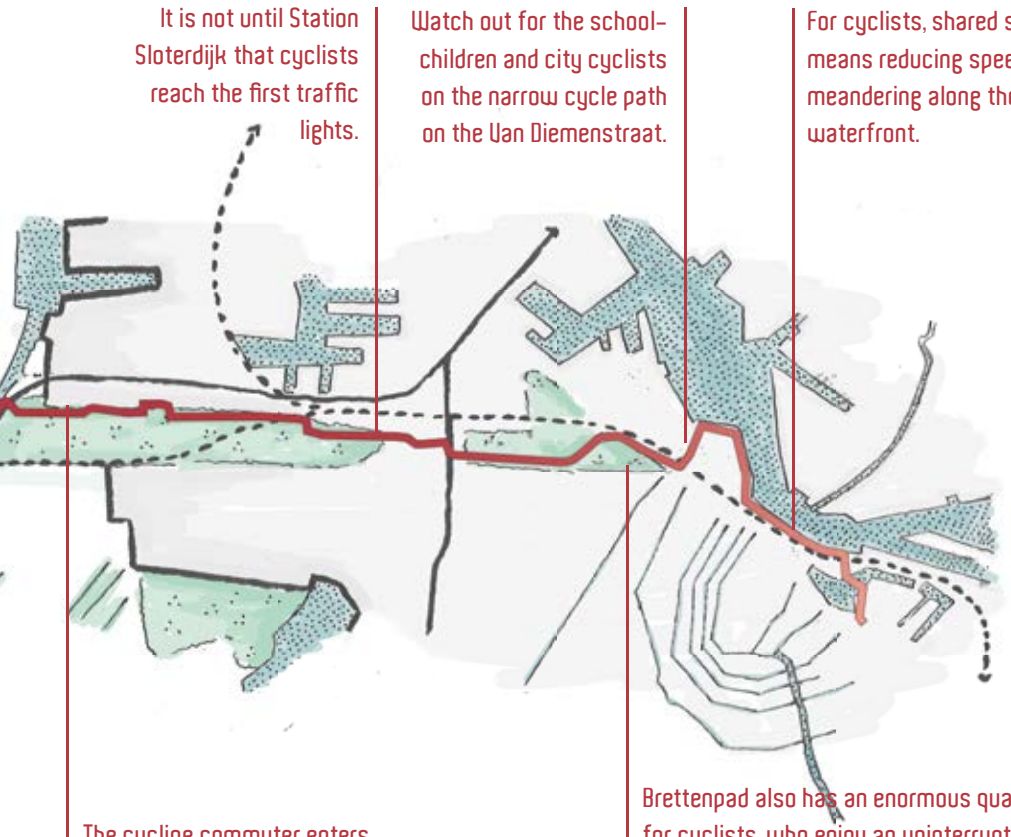
before meeting the first set of traffic lights. One great quality of this route is the pleasant green surroundings: the polders at Halfweg, the Bretten-zone and Westerpark (always busy). It isn't until Haarlemmerplein that cyclists encounter cars. From that point on, the art is for cyclists on racing bikes or e-bikes to adjust their speed to accommodate fellow road users. This becomes clearest around Centraal Station: sharing space means reducing speed and navigating in response to other users. After the station, some minutes remain before we reach our destination.



MORAL OF THE STORY

The moral of this story is crystal clear: even for regional commuting within the Amsterdam metropolitan region, the future belongs to bikes. Perhaps not for all commuters, but certainly for fit cyclists and, with the emergence of the speed pedelec and e-bike, for road users who prefer not to work up a sweat. Physical conditions for commuting cyclists on the Haarlem-Amsterdam route are fine. It is for the most part a bike highway. The bike, or e-bike, proves to be a perfect alternative to the car and train for the 24-kilometre commute. Outside the city, the journey is uninterrupted, fast and green. Inside the city, the main advice to fast cyclists is to switch off Strava and adjust your speed.

Related design tools for this article:
1.7 Direct cycle routes
1.8 Regional bike network, page 80
2.4 Encircled by busy routes, page 82
3.3 Adapted speeds, page 84



Haarlem–Amsterdam bike highway

A fast, direct bike route

An illustration of design tool 1.8 Regional bike network, page 80

The bike route between Amsterdam and Haarlem is uninterrupted: the bike highway with its comfortable surface, scarcely any traffic lights or traffic junctions, penetrates deeply into Amsterdam. The bike highway passes through pleasantly green surroundings that offer views of the landscape of Holland.

Client: Province of Noord-Holland, City of Amsterdam, City of Haarlem

Nesciobrug

An attractive bridge for cyclists and pedestrians that connects IJburg to Amsterdam-Oost

An illustration of design tool 1.7 Direct cycle routes, page 80

Nesciobrug creates a direct, unbroken and fast connection between Watergraafsmeer/Diemen and IJburg. Its position between the neighbourhoods adds to the bridge's value. Unfortunately, the connection runs through large green areas (Nieuwe Diep and Diemerpark), which means that it feels unsafe to many people, especially in the evening. A direct connection between two neighbourhoods without any green area in between feels safer.

Client: City of Amsterdam
Design: Wilkinson Eyre

Walking through post-war residential districts and employment areas

Annemieke Molster
Annemieke is an urban designer and researches with her office Molster Stedenbouw the relation between design and active mobility.

In collaboration with:

Camilla Meijer
Camilla is an environmental psychologist and researches with her company Omgeving en beleving how people perceive, use and change their physical surroundings.

Walking has so many benefits that you wish everybody did it more often. The reasons vary. In the crowded city centre, the limited spatial needs of pedestrians are a big advantage, in residential areas it is important that people become more physically active, and in business parks there is growing awareness of the value of an attractive climate, for social contact and for the health of employees. This article shows how post-war residential districts and employment areas could be made more attractive for pedestrians. Urban interventions are sometimes needed, such as increased density, mixed-use developments, and better connections to public transport. Promoting walking can also be achieved through architecture by introducing variation, a human scale or a ground floor with 'eyes on the street'. Finally, much can be achieved through the design of public space. For example, wider sidewalks, benches and sufficient lighting.

People like to walk when the distance is limited, it is and feels safe, the route can be found directly and easily, the walking surface is comfortable, and the surroundings look pleasant.

JUST WALK!

You see lots of pedestrians in the city and older neighbourhoods. Many amenities lie within walking distance, public transport is good – people walk or cycle to the stops – and it is always lively. Driving a car is not an appealing alternative, because it is difficult, slow and expensive. The situation is very different in many post-war residential districts, and also in employment areas. Residents are less physically active and the health problems are greater.[26] An important reason why people are less physically active in such areas is that distances to amenities and work are long, so people tend to take the car or public transport more readily. Driving a car is relatively easy, since there is more space for cars and parking is not a problem.

It is striking that people in post-war districts cycle much less than average, while walking is more or less at the Amsterdam average.[27] Spatial, socio-economic and lifestyle are all contributing factors. In these residential and employment areas, however, we see huge potential for pedestrians.

WHAT DOES THE PEDESTRIAN WANT?

If we want to encourage people to walk, conditions must be good. People like to walk when 1) the distance is limited, 2) it is and feels safe, 3) the route can be found directly and easily, 4) the walking surface is comfortable, and 5) the surroundings look pleasant. This order is important: people are willing to walk further in attractive surroundings but that is not the only consideration. If distances are too far or too unsafe, the attractiveness of the surroundings no longer matters. Research has shown that people walk and cycle less when they feel unsafe. In addition, poorly maintained sidewalks and streets do not promote walking.[28]

Wibautstraat has been transformed from an unattractive traffic artery that was difficult to cross into a more pleasant street for pedestrians with wide sidewalks, open plinths and good places to cross to the other side.

URBAN RENEWAL OF POST-WAR DISTRICTS

Unfortunately, these conditions are occasionally lacking in post-war residential districts. The first condition is often where things start to go wrong: housing density is too low and few destinations lie within walking distance. More mixed-use development and higher densities are desirable. Many post-war residential districts are being renewed, and their liveability and safety are being successfully tackled. Much has been achieved unintentionally. The districts are becoming more attractive for pedestrians: a greater mix of functions, higher densities, and improved safety.

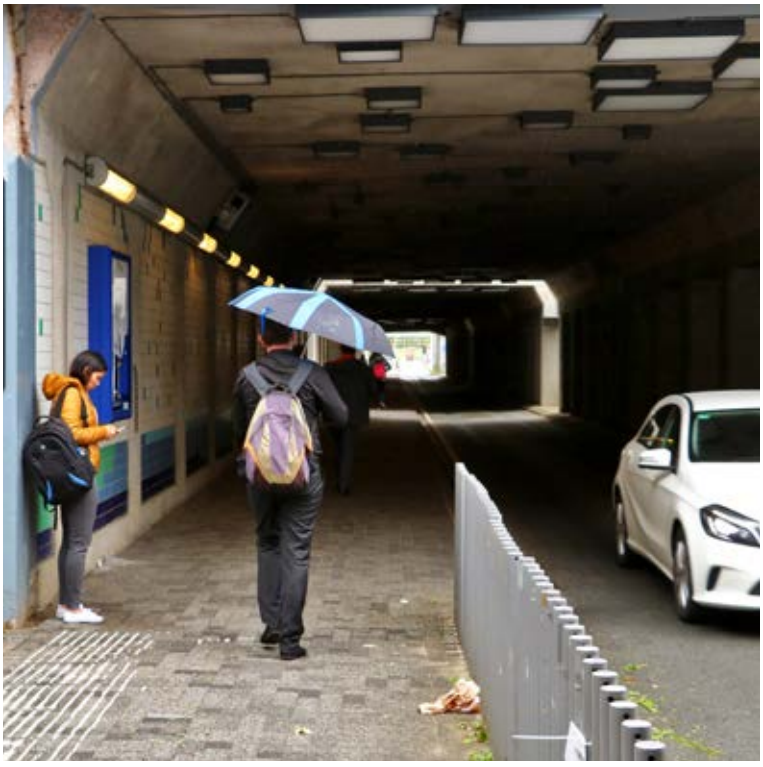
The urban layout increases the feeling of an unsafe environment. Many housing blocks have short ends without windows, and ground floors are occupied by garages and storage units. Successful solutions include adding spaces for activities on the ground level and improving views from the homes to ensure there are always 'eyes on the street'.

The plinths of the Bijlmer apartment blocks consisted of storage units and garages. In the renovation the plinths have been converted into dwellings and spaces for amenities. On the top is the old situation in the Grubbehoeve building, and on the bottom is the current situation. The businesses and collective space in the plinth enhance the building's appearance and improve the safety in the area.

Homes in this stairwell-access apartment building on U.J. Klarenstraat in Slotervaart were sold off as affordable 'fix-up houses'. Occupants converted the garages in the plinth into kitchen-living rooms, thus ensuring 'eyes on the street'. It is now a pleasant stroll past bright windows and entrances to homes.

WALKING TO THE METRO OR TRAM

Almost nobody finds all their daily destinations within walking distance in their own neighbourhood. For longer distances, people opt for public transport or the car. A combination of rapid public transport and walking works well in these districts, offering people a good alternative to the car. In choosing to travel by public transport, people consider the complete journey from door to door. Walking is by far the most important way of getting to and from public transport stops, and waiting is often the bottle-neck. Attractive and safe walking routes to and from public transport stops are crucial. Even so, it regularly happens that while a station or stop is being constructed or redeveloped, it is painfully obvious that walking routes on the surrounding streets have been given no consideration. They simply fall outside the scope of the project.



The mixed-use employment area and Sciencepark station are well-designed for pedestrians. The route between them, however, is not of the same standard: the tunnel under the rail tracks is long and uninviting, the station cannot be seen from Sciencepark, and the detailing of materials is substandard.

SMALL INTERVENTIONS COULD MAKE A HUGE DIFFERENCE!

In addition, roads are unnecessarily wide, cars drive too fast, paving slabs are dislodged, ramps for wheelchairs and Zimmer frames are lacking, and the architecture shows little variation. Minor interventions in public space could help pedestrians cross the road more easily and safely, prevent them from stumbling on the sidewalk, and allow them to rest for a moment in a pleasant place. Plenty can be achieved. The architecture too could be more attractive and varied. Simple interventions such as murals can improve the appearance of the surroundings enormously.

Street art in Amsterdam Nieuw-West. Vermeer's milkmaid is shining on what used to be a boring facade.

FROM EMPLOYMENT AREA TO ATTRACTIVE MIXED-USE DISTRICT

Employment areas are strongly oriented to the car. Most workers and visitors travel from home to work and back again by car. Their existence is a sedentary one. The challenge is to make the environment more conducive to walking. Better and more attractive routes between offices and public transport stops are important in employment areas too. They will encourage people to opt for public transport and walk from their workplace to the public transport stops. An attractive working environment also encourages people to take a lunchtime stroll, ensuring a fitter workforce with higher productivity rates.

More mixed-use developments and more pleasant conditions for pedestrians are being realized in many places. For example, in the Amstel III business park, various amenities are being created within walking distance of one another. The result is that the area will be lively around the clock and double usage of parking spaces is facilitated. Amsterdam Sciencepark is developing as a mixed-use district with a university, offices, a hotel, congress facilities and dwellings. In Bullewijk, a restaurant with outdoor seating and a number of items of playground equipment have been placed between the office buildings. These big and small interventions make the area more pleasant for pedestrians.

Homes have been added to the Amstel III business park, an employment area that previously contained nothing but offices and companies. Combining functions makes the area more vibrant and thus attractive for pedestrians.

CONCLUSION: PEDESTRIANS DO NOT TAKE DETOURS

Pedestrians want short, direct routes. They don't take detours. Smart new connections are sometimes required to entice people. Sometimes people walk no matter what, even if there is nothing designed for them. Hence the familiar desire lines, such as the one at Lambertus Zijlplein that marked the shortest route from the housing to the shopping centre, where the terminal loop of tram 13 is located. The desire line has now been paved. It has been rerouted slightly so that pedestrians to not have to cross the tram tracks twice.

Good examples of new connections are Paleisbrug in Den Bosch and Moreelsebrug in Utrecht. These attractive bridges for slow traffic across rail yards connect neighbourhoods with the centre. In Amsterdam the bike and pedestrian bridge across Buiksloterkanaal provides access to Overhoeks, and further on, a new bridge connects NDSM with Buiksloterham. These are smart interventions that shave many minutes off journey times for people on foot and bike.

Related design tools for this article:
1.1 Dense, mixed-use neighbourhoods, 1.3 Rapid public transport, 1.4 Public transport interchanges, 1.5 Good access routes to public transport, page 80
2.1 Human scale, 2.2 Intensive combination of functions, 2.11 Walking routes in employment areas, page 82
4.1 Street fronts, 4.2 Smooth streets and spaces, 4.3 Sufficient rest areas, page 85

Desire lines between the shopping centre and the residential area at Lambertus Zijlplein have now been formalized and paved. Make short routes!

Spoorpark

Railway embankment transformed into site for sports, games and lunchtime strolls

An illustration of design tool 1.5 Good access routes to public transport, page 81

Spoorpark is the first section of the planned green route from Arenapoort West, via the AMC, to Abcoude. The railway embankment, previously an unused and unsafe piece of leftover space, has been designed as a linear park with an attractive pedestrian and cycle route between the Bijlmer Arena and Bullewijk stations. Commuters take this route from the stations to the employment areas.

For many office workers, Spoorpark is a regular setting for a lunchtime stroll. It makes for a pleasant break in an area dominated by offices.

Tourists from the hotels and hostels in the area relax on the grass beside the water. And the day-care centre in neighbourhood brings children here to play safely on the equipment along the route, without any danger from cars.

An illustration of design tool 2.11 Walking routes in employment areas, page 83

Spoorpark on the railway embankment is a wonderful example of how an unused space in the city can develop as an alternative sports area. The sports route and the equipment have been designed in collaboration with Reebok CrossFit 020 (a gym located along the route). It ensured that there are two identical pieces of equipment side by side so that people doing the same exercise do not have to wait for each other.

An illustration of design tool 5.3 Smaller sports areas, page 126

Client: City of Amsterdam
Design: City of Amsterdam

This stretch of leftover space beside the railway tracks offers unexpected user possibilities. There's something happening here at all times of the day.

A neighbourhood for life

Wendy van Kessel
Wendy is an urban designer at Urhahn. Her article is based on her graduation research into the lifecycle sustainability of Amsterdam neighbourhoods.

In Amsterdam, the number of people aged 65 and over is expected to rise from almost 90,000 in 2011 to 160,000 in 2040.[29] This group has specific requirements in terms of housing, amenities and public space. An ageing population and rising health-care costs have resulted in sweeping reforms to our health insurance system. Fewer and fewer people are entitled to hospital care, and seniors are encouraged to live at home for as long as possible.

A CITY WHERE YOU CAN GROW OLD

Our living environment has become an increasingly important cornerstone of our health-care system. The growing group of seniors – who remain living at home for longer – calls for another perspective on our physical surroundings. We have to continue to involve seniors in daily urban traffic, to boost their self-esteem, improve their self-sufficiency, and lower their demand for care and help. At the same time, the chances of dementia and chronic illnesses decrease if seniors remain active for longer.

Because of the reduced action radius of seniors, amenities, public transport stops and lively public spaces should be located within walking distance.

Living at home for longer is often what seniors themselves want. In many cases, however, the immediate living environment is totally unsuitable for them. Seniors have a small, or smaller, action radius. Facilities, public transport and vibrant public spaces should be within walking distance. The proximity of amenities stimulates seniors to remain active, creates social contact and promotes self-sufficiency. In short, they give seniors a reason to leave the house.

A NEIGHBOURHOOD FOR LIFE

To enable seniors to continue living in their own neighbourhood – where their social network is located – we need neighbourhoods that are suitable for growing old: neighbourhoods for life.

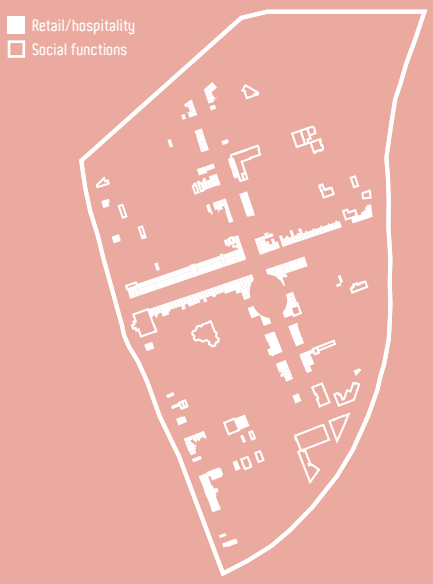
A neighbourhood for life has the following characteristics:

- There is a network of good routes where slow modes of transport are given sufficient space.
- The neighbourhood activates people to get outside. Seniors make less use of the car and turn to public transport for longer distances. The distances and routes to public transport stops are vital for seniors.
- There are easily accessible care and welfare facilities, both big and small, within the neighbourhood. Facilities within walking distance boost the self-sufficiency of seniors and motivate them to leave the house.
- There are housing opportunities for all age groups and there are alternatives within the neighbourhood if the home situation changes.
- The neighbourhood stimulates social contact, both informal and formal, thus countering isolation and loneliness. Good public outdoor spaces, and also shared interior spaces, can activate seniors to leave the house and maintain social contacts.
- The neighbourhood is compact and dense, ensuring enough support for the neighbourhood amenities.

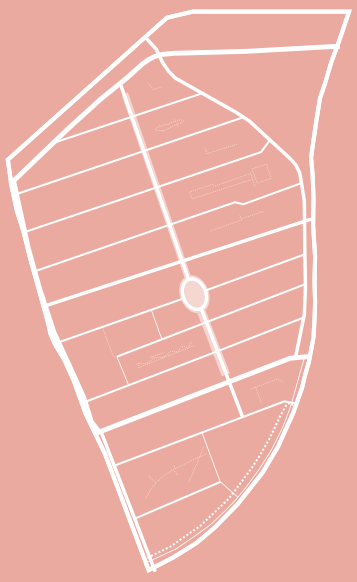
Although the principles of a 'neighbourhood for life' are identical for every neighbourhood, each one calls for a unique social-spatial approach that addresses local issues. Every neighbourhood is unique. For example, Dapperbuurt faces different issues to Betondorp (even though both are in Amsterdam-Oost). In the case of both neighbourhoods, the structure is explained, the location of relevant facilities is pinpointed, and interventions are proposed.

Related design tools for this article:
2.1 Human scale
2.2 Intensive combination of functions
2.3 Low-traffic network
2.4 Encircled by busy routes
page 82
3.2 Separate speeds
page 84
4.1 Street fronts
4.2 Smooth streets and spaces
4.3 Sufficient rest areas
page 85

The Dappermarkt is always a vibrant place. For seniors in the neighbourhood, daily shopping motivates them to get out of the house. This prevents their isolation and ensures they get sufficient exercise.



Level of amenities
Dapperbuurt



Hierarchy of streets
Dapperbuurt

Dapperbuurt

The Dapperbuurt neighbourhood dates from the late 19th century, and was built to a plan by the Amsterdam city planner Kalff.

The Dapperbuurt is famed for its outdoor market, the Dappermarkt, which makes it a lively neighbourhood. Amenities and shops outside the market are within walking distance, giving seniors a good reason to leave the house.

At the same time, market activity generates a lot of motorized traffic and there is a lack of calm areas with greenery on the quieter streets. The lack of a hierarchy in street profiles means there is no close-knit street network or low-traffic zones. The creation of such low-traffic zones within the neighbourhood would make it easy for people to take a stroll along safe walking routes.

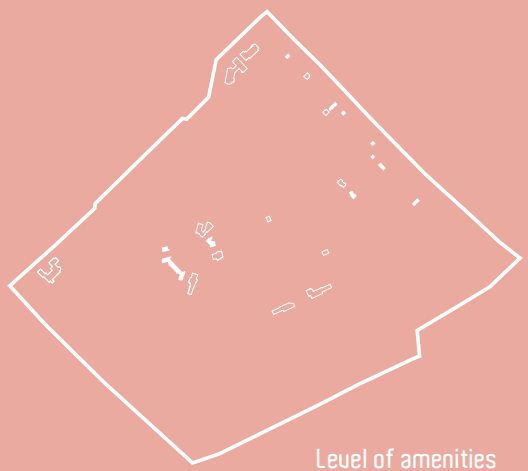
The addition of benches, trees and greenery to street profiles would improve the quality of space and make it more pleasant for pedestrians.

An illustration of the design tool 2.2: Intensive combination of functions, page 82

An opportunity to apply the design tool 2.4: Encircled by busy routes, and 2.3 Low-traffic network, page 82

An opportunity to apply the design tool 4.3: Sufficient rest areas, page 85

Retail/hospitality
Social functions



Level of amenities
Betondorp

Hierarchy of streets
Betondorp

Betondorp

Betondorp is a garden village built in the years 1923–1925. The urban structure is spacious and concentric, offering a wide variety of routes.

An illustration of the design tool 2.1: Human scale, page 82

Faster and slower routes lead safely to the village centre. Green spaces and green routes make a stroll around the village more pleasant.

An opportunity to apply the design tool 2.2: Intensive combination of functions, page 82

The main problem in Betondorp has to do with amenities. Over the years, the density has decreased owing to changing housing standards, causing amenities to gradually disappear from the neighbourhood. That is a problem for older residents who live further away from the centre. Increasing the density and building housing for seniors close to the centre would help increase the support base needed to keep the necessary amenities nearby.

An illustration of the design tool 3.2: Separate speeds, page 84 and 4.2 Smooth streets and spaces, page 85

Routes to get there are safe: wide sidewalks, motorized traffic at a distance thanks to parallel parking, clearly designed public spaces and sufficient crossing points.

An illustration of the design tool 4.1: Street fronts, page 85

At the same time, the social structure of the neighbourhood is good, and many people have lived their whole lives in Betondorp. The large number of ground-access dwellings makes routes more pleasant and ensures 'eyes on the street'.

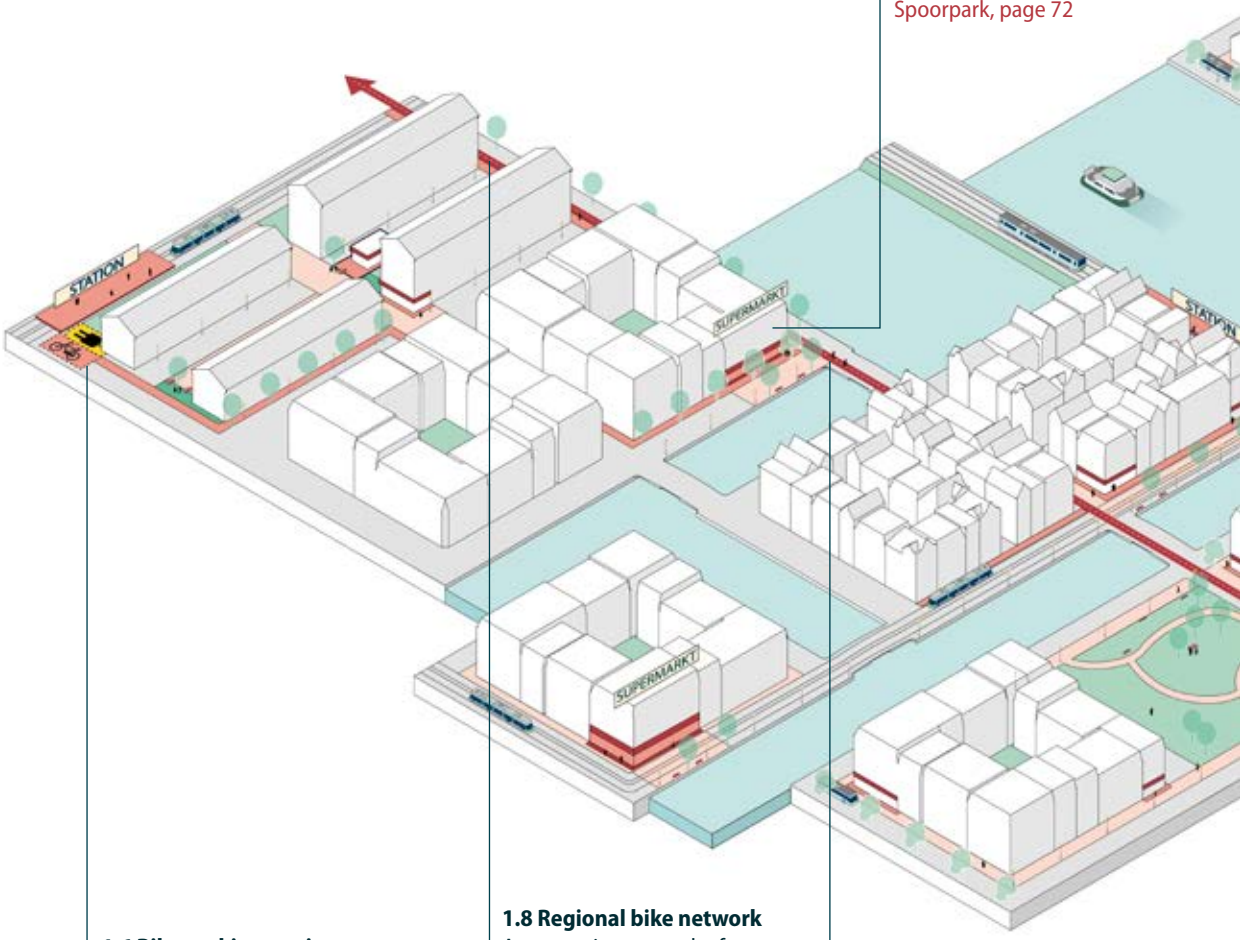
Good public spaces can activate seniors to leave the house and maintain a social life. The basis is formed by safe and attractive networks of streets, squares and sidewalks.

Design tools for cycling and walking

Ambition 1. Connected urban cores

The city and region have a polycentric structure with a number of cores (urban and neighbourhood centres). These cores are mixed-use and dense. Rapid public transport and uninterrupted cycle lanes connect cores to one another.

1.2 Amenities in the city
Amenities (shops, employment, medical care, culture, sports, etc.) are located in the centre and not on the edge of the city.
See inspirational project Spoorpark, page 72



1.6 Bike parking stations linked to public transport
There are sufficient comfortable (secured) bike parking stations with charging points for e-bikes close to public transport interchanges and points of urban concentration.
See inspirational project Mahlerplein, page 36

1.8 Regional bike network
An extensive network of cycle routes connects the city and nearby towns and villages, directly and without interruption (with as few intersections and few traffic lights as possible).
See inspirational project Haarlem-Amsterdam bike highway, page 60

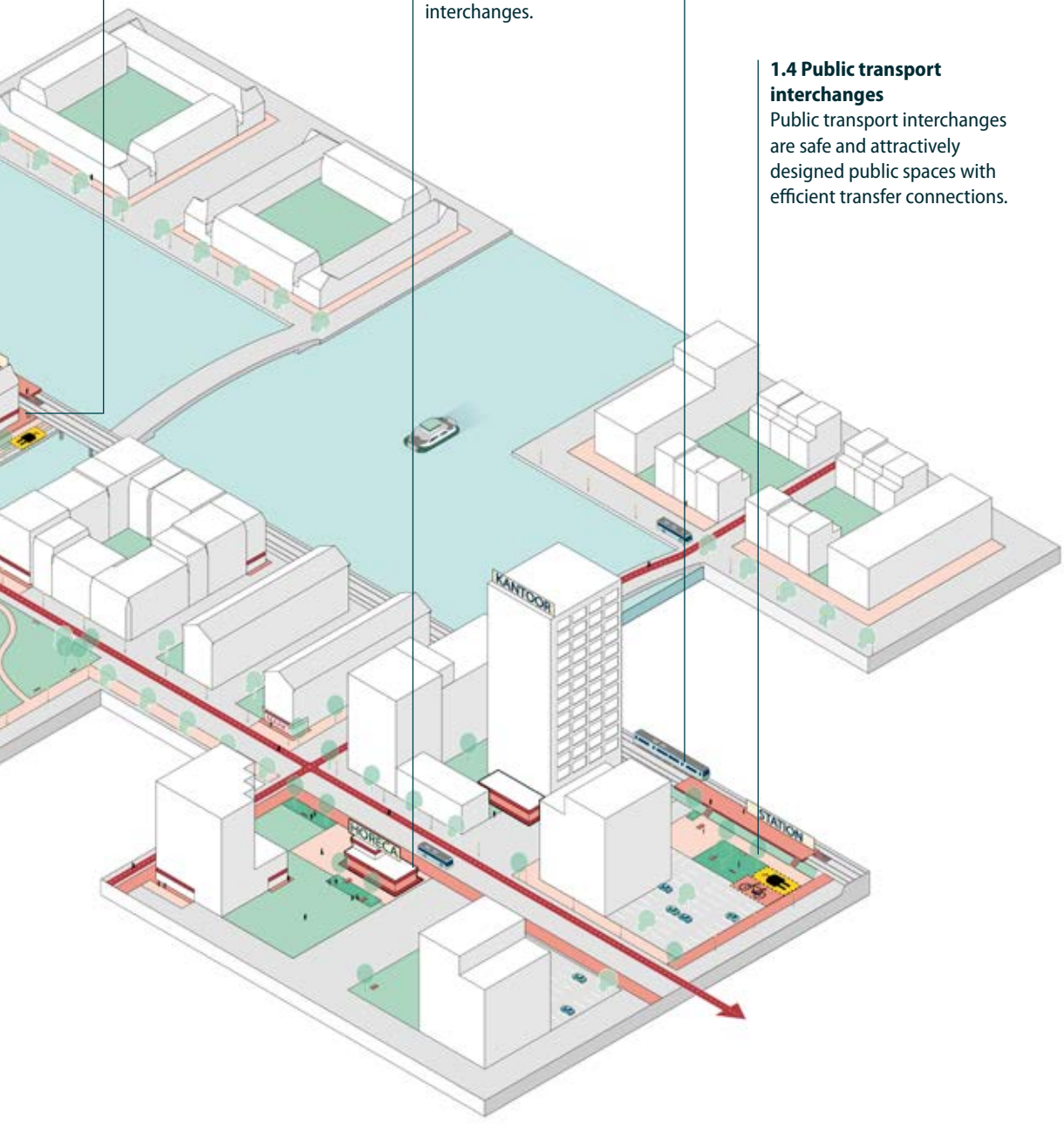
1.7 Direct cycle routes
Direct, uninterrupted and fast bike routes (such as the city radials) connect city districts to one another.
See inspirational projects Sarphatistraat, page 50 and Nesciobrug, page 62

1.5 Good access routes to public transport
Walking and cycle routes dovetail perfectly with the public transport network. They are safe, attractive, have front sides, and there are 'eyes on the street'.
See inspirational project Mahlerplein, page 36

1.1 Dense, mixed-use neighbourhoods
All residential neighbourhoods and employment areas have a high density and contain a mix of functions, especially around public transport interchanges.

1.3 Rapid public transport
Rapid public transport, in the form of a fast tram, metro and light rail, caters for longer distances within the city and region. Cycling and walking function as a means of getting to and from public transport stops (part of the transport chain).

1.4 Public transport interchanges
Public transport interchanges are safe and attractively designed public spaces with efficient transfer connections.



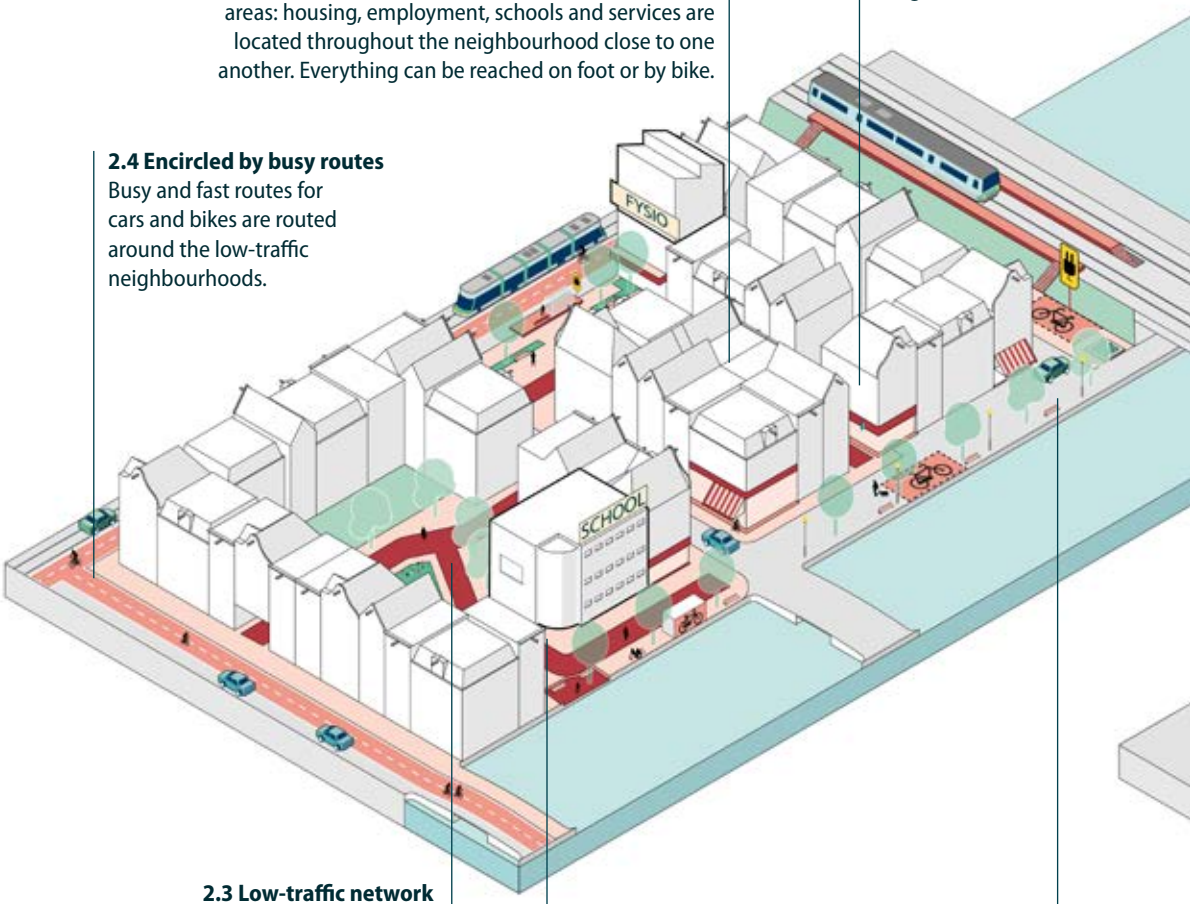
Ambition 2. Cycling and walking in a low-traffic neighbourhood

The active city has low-traffic, compact neighbourhoods where everybody can reach their destination by bike or on foot. These neighbourhoods give priority to cyclists and pedestrians.

2.1 Human scale
The human scale and small-scale character form the basis for the structure of the neighbourhoods.

2.2 Intensive combination of functions
Low-traffic neighbourhoods are intensively mixed-use areas: housing, employment, schools and services are located throughout the neighbourhood close to one another. Everything can be reached on foot or by bike.

2.4 Encircled by busy routes
Busy and fast routes for cars and bikes are routed around the low-traffic neighbourhoods.



2.3 Low-traffic network
These neighbourhoods have a network of comfortable, smooth, low-traffic streets and squares designed with the speed and safety of children and parents in mind. Everyday amenities, public transport and housing for seniors are connected to this network. (See also 9.2)
See inspirational project Roeterseiland, page 38

2.9 Car-free schools
The areas around schools are car-free. Children are not brought right to the school gate by car.

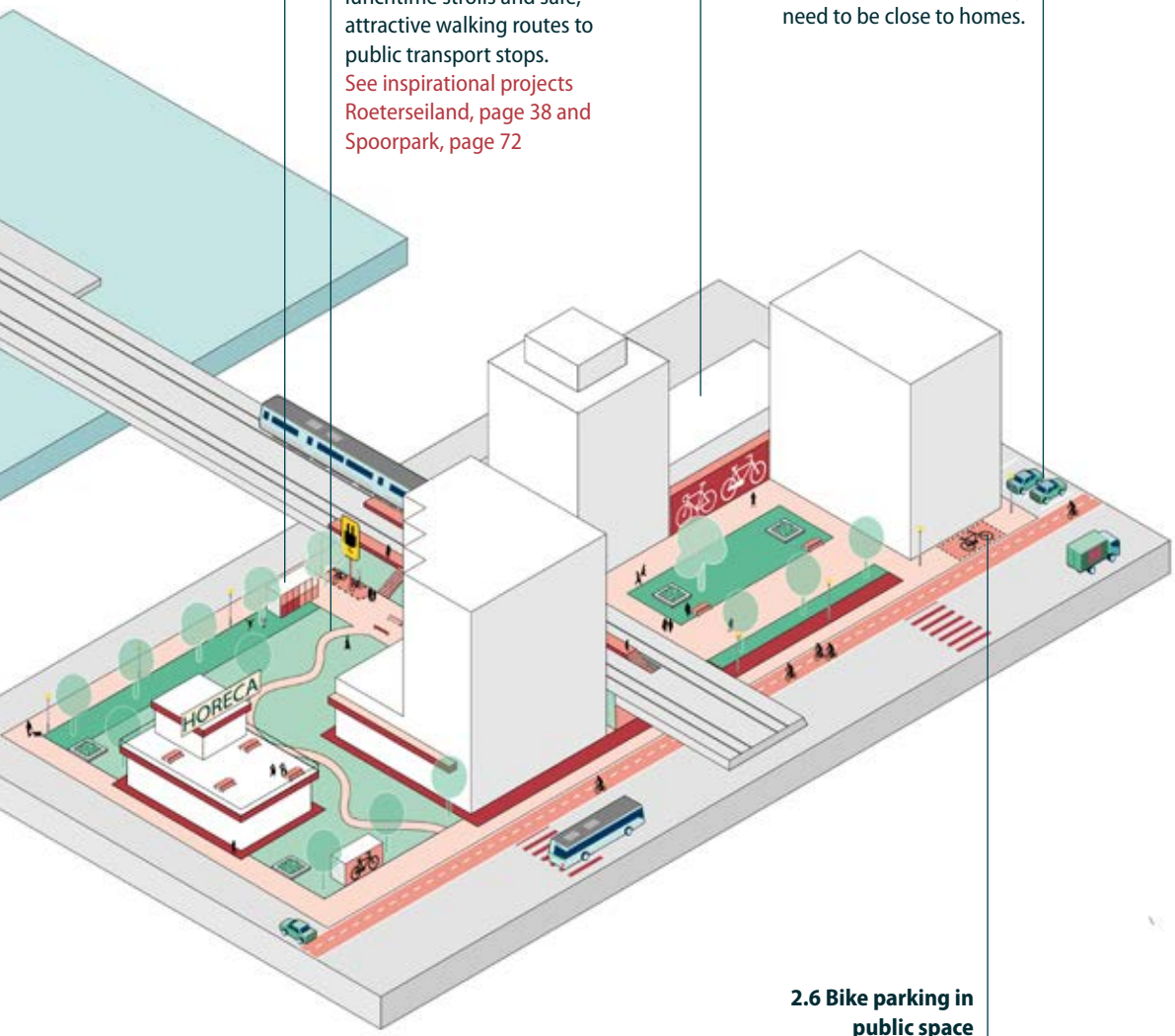
2.5 Close-knit structure
The neighbourhoods have a close-knit grid of shared streets. Cars can be given a place in the neighbourhood.

2.10 Pick-up points
Clever plans for parcel pick-up points prevent unnecessary delivery traffic through neighbourhoods.

2.11 Walking routes in employment areas
Employment areas contain routes for recreational lunchtime strolls and safe, attractive walking routes to public transport stops.
See inspirational projects Roeterseiland, page 38 and Spoorpark, page 72

2.7 Bike parking racks in buildings
Each (new) building project provides sufficient bike parking racks. These are places close to residential buildings, with car parking areas possibly further away.
See inspirational project Roeterseiland, page 38

2.8 Clustering car park spaces
Car parking spaces in the neighbourhoods can be clustered and do not necessarily need to be close to homes.



2.6 Bike parking in public space
Sufficient bike parking racks are provided in public spaces or in public bike parking stations.

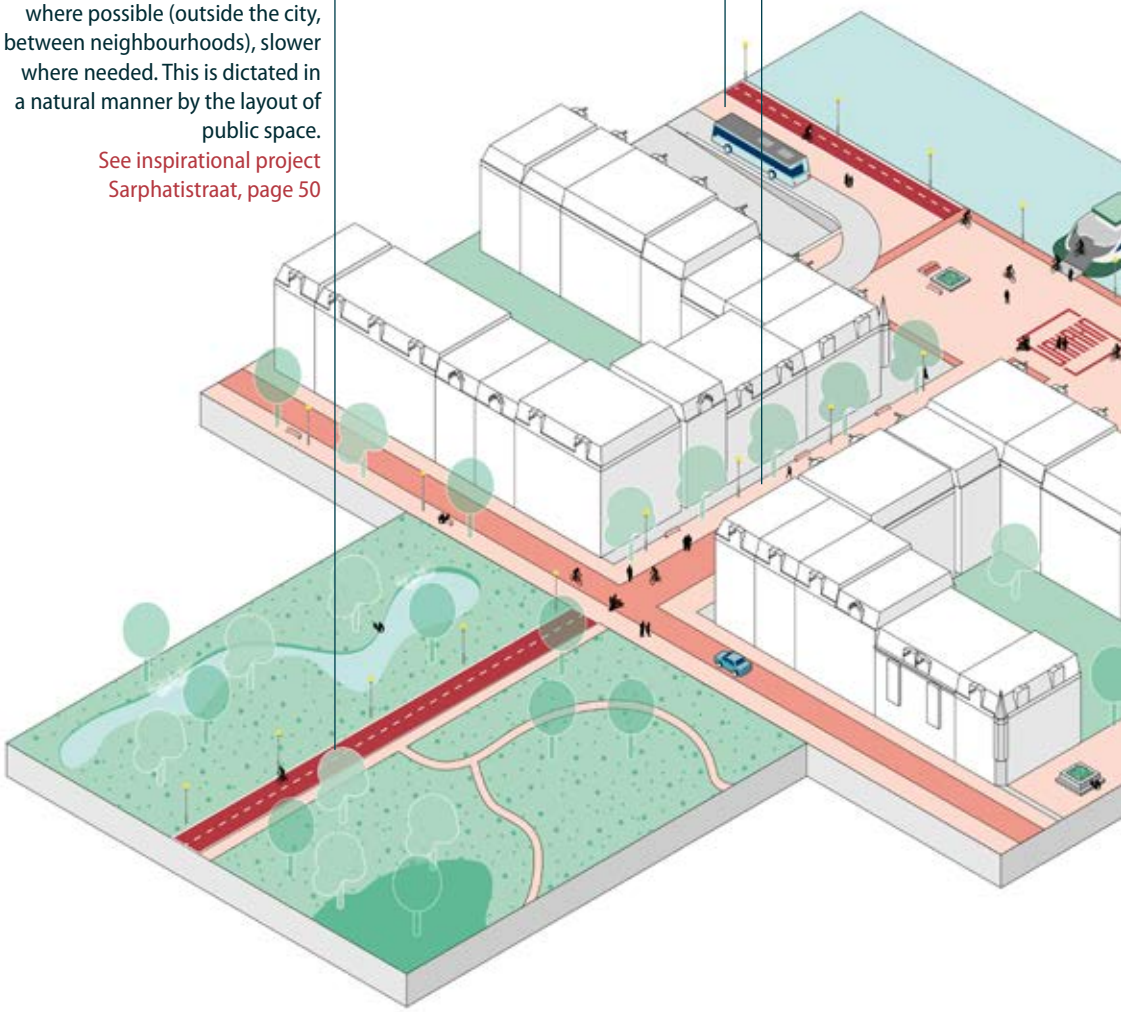
Ambition 3. Shared streets

Public space is a pleasant place to spend time in the city. Traffic flows moving at more or less the same speed share streets. Borders are not strictly drawn, and people take one another into account.

3.1 Shared streets
Modes of transport moving at more or less similar speeds share space. More sharing and more self-regulation increases user attentiveness and traffic safety. Ordinary streets, wide streets for bikes and shared spaces form the basis of the city.
See inspirational projects Sarphatistraat, page 50 and De Ruijterkade, page 52

3.2 Separate speeds
Modes of transport are not combined if differences in speed and vulnerability are too big: cars and bikes are separated on busy access roads; fast cyclists are separated from pedestrians; vulnerable seniors and children use safe sidewalks.

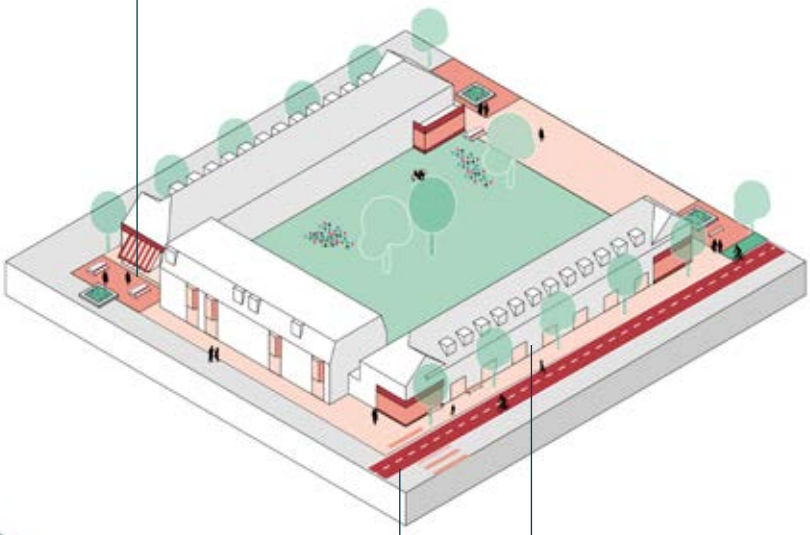
3.3 Adapted speeds
Fast cyclists adapt their speed: fast where possible (outside the city, between neighbourhoods), slower where needed. This is dictated in a natural manner by the layout of public space.
See inspirational project Sarphatistraat, page 50

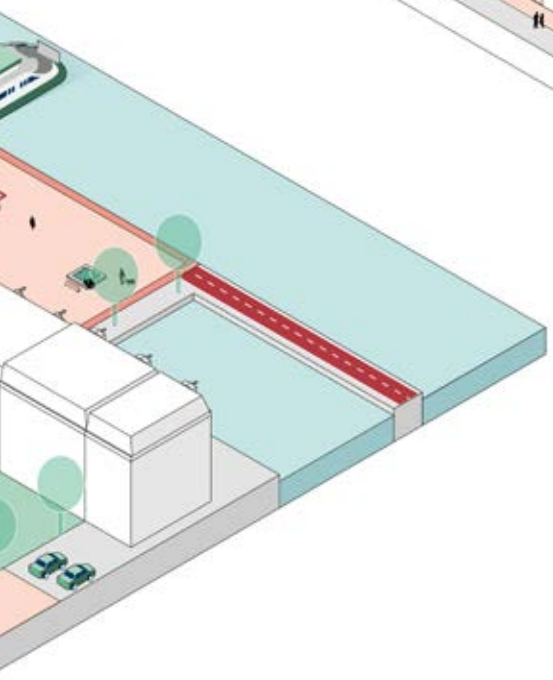


Ambition 4. Safe and smooth public space for everybody

Public space is laid out in a safe, smooth and comfortable manner so that everybody can enjoy cycling and walking.

4.3 Sufficient rest areas
Public space provides sufficient points of rest for seniors.





4.1 Street fronts
The streets have front doors and plinths of the buildings house a variety of functions. This increases community safety ('eyes on the street') and attractiveness.

4.2 Smooth streets and spaces
Walking and cycle routes and sidewalks are smooth to accommodate vulnerable groups, with no insurmountable height differences in the street profile, comfortable surfaces, no unnecessary obstacles and safe crossing points.

sports

Sports

Sports are more varied than ever before. Many people still play a sport for a traditional sports club, outdoors or in a hall, but new forms of sport have emerged in recent years. Gyms are hugely popular, and Cruijff Courts are breathing new life into the time-honoured game of street football. Unstructured sports are rising rapidly, as we see in public space everywhere, especially in parks. Countless joggers and cyclists criss-cross parks, benches are used for fitness, pathways are marked out for sprints, and boot camp participants make use of tree trunks.

THE CITY CHANGES SPORT; SPORT CHANGES THE CITY

It's not so long ago since most people who did sports were members of a traditional club – often football, hockey, tennis or athletics. Today we see the popularity of sports that are either not organized or structured differently (sports played in teams, but where you do not have to be a member of a club). This is the case with the most popular sports of all at the moment: fitness training, jogging and running.[30] Individualization within society and busy agendas are major contributing factors. People prefer to do sports 'quickly and nearby' than with a club on a regular evening, with all the social obligations that come with it. The importance put on sports has changed. Many people do sports for health reasons.[31] Sports, healthcare and wellness are merging. Are power yoga and tai-chi examples of sports, healthcare or wellness? Being sporty and active is seen as a lifestyle. Playing sports is cool, part of an urban lifestyle, and at the same time expresses identity. Sports enthusiasts, male and female, like to be seen and admired.

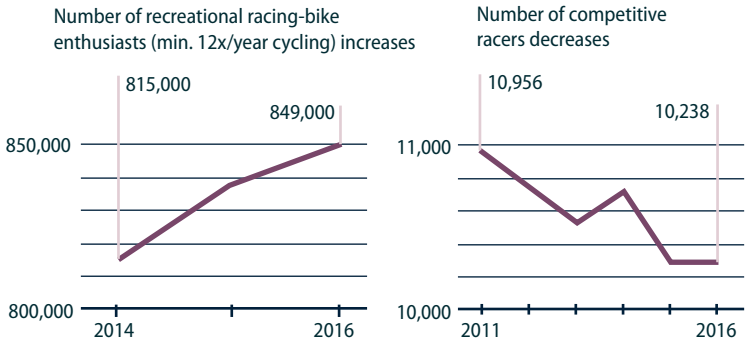
But there is also another reality. Residents – young and old – of many neighbourhoods are too little physically active. The lower the socio-economic status (SES), the less sport. In 2015, the percentage of highly educated people who did sports twice a week was more than double the percentage of lower educated people.[32] In Amsterdam, too, highly educated people are more regularly physically active than lower educated people.[33] Sometimes the motivation is lacking, sometimes simply the possibilities (facilities, time, money). Amsterdam wants to

provide space for this, so that everybody is enticed to do more sports and become more physically active.

THE CURRENT PROBLEM

Sports are mutating, adapting themselves to the available space, adopting foreign influences and drawing inspiration from other activities. Take for instance the popular three-a-side basketball game, a form of basketball that can be played on any street corner. It requires little space and you only need six players. This is typical of sports in the city. The sports-playing city dweller claims space by adapting forms of sport, renewing traditional sports facilities, and using public space: from panna cages, urban free running trails, calisthenics parks and boot camp sessions to middle-aged men in Lycra. News forms of sport call for another perspective on public space. Sports zones in the city are becoming increasingly important.[34] Public space is being used as a gym. Design public space for sports and physical activity, because that gives places an identity and makes the city more attractive as a place of business.

While sports that are unstructured or organized differently are increasingly important for adults, organized sports are still the most important for children.[35] For this young group in particular, it is vital that sports facilities are not pushed out to the edge of the city. Value sports at the heart of neighbourhoods.[36] They encourage the practice of sports, especially in underprivileged neighbourhoods, provide spatial quality, and boost social cohesion. Olympiaplein and the tennis courts at Linnaeushof and Winterdijkstraat have all demonstrated the power of sports at the heart of the neighbourhood for decades.



The growth of the number of recreational racing-bike enthusiasts compared to the decrease in the number of competitive racers
Illustrative of the increase in flexible sports. NTFU, LVDB/Het Parool, adapted by Urhahn

Ambitions for sports

AMBITION 5. OPEN SPORTS

Make sports facilities open – literally and figuratively – both those in the city centre and larger ones on the outskirts of the city. Make sports parks part of the public domain by making them (more) public, more multipurpose and more accessible. Sharing facilities means there is less reliance on one single user, and costs and responsibility can be shared. Combine functions smartly at sports facilities: gym, after-school care, sports pitches, sports medical centres – many combinations are possible (for example, Sportplaza Mercator). Open up facilities for sports organized in other ways (Olympiaplein, Meerpark) or provide facilities for individual sports enthusiasts, such as sanitary spaces, cafés, lockers (Mirandabad). All this leads to sports facilities that act as a new type of park. Elegant fences, a central location and 'views of the pitches' are requirements. Inspiring examples include Olympiaplein and Laan van Spartaan.

Read more: articles 'Streetwise', page 108, and 'Children in the city' page 148

See also: inspirational projects Sportas, page 98, Olympiaplein, page 104, Laan van Spartaan, page 106, Meerpark, page 118, and Sportplaza Mercator, page 124

Larger sports facilities are space-intensive, are usually located on the edge of the city, and of course continue to be needed. Ensure attractive and safe routes so that complexes are easy to reach by bike and still seem nearby.

Read more: articles 'The value of sports in the city', page 100, 'Streetwise', page 108, and 'Data-based design', page 114

AMBITION 6: THE CITY AS GYM

Design public space in such a way that it offers opportunities for sports and physical activity. Sports and physical activity are basic facilities in a good city neighbourhood. Do not design everything, create exercise challenges (height differences), offer space (over-dimensioning) for sports, make good and green routes. City centre squares such as Makassarplein and Van Beuningenplein, and big parks like Westerpark, Noorderpark and Park Somerlust offer all sorts of opportunities for sports and games.

See also: inspirational projects Sloterplas free running trail, 112, De Mirandabad, page 116, Van Beuningenplein, page 158, and Westerpark–Park Somerlust–Noorderpark, page 160

AMBITION 7: WATER AS SPACE FOR PHYSICAL ACTIVITY

Amsterdam is a city of waterways. Water is a wonderful opportunity for sports and play: from children splashing in the wading pools in Oosterpark, Gibraltarplein and Westerpark, water sports in the canals to swimming in the lakes (from Sloterplas to Gaasperplas) and in the open water. Provide space and facilities for water sports (from stand up paddling, or 'supping', to surfing and rowing) and swimming where possible. Not only in the lakes on the edge of the city but also in the centre. The Marineterrein offers wonderful opportunities.

Read more: articles 'The value of sports in the city', page 100, and 'Breathing space on the water', page 120

The design tools per ambition in perspective, see page 126–131

Thursday night

in the Fleuopark

Fleuopark is my park. In fine weather it's where I go to take a walk or enjoy a book in the sun. I know it inside out, and do sports there a couple of times a week. If I can find time during the weekend, I head there for my regular jog. I join a boot camp on Tuesday and Thursday evenings. Although the 'stamping ticket' concept gives me flexibility and guarantees a fair price, I rarely miss a session. But I'm not the only one who's got a taste for it. As the temperature rises, so too does the size and diversity of the group. I don't believe in making our bodies bikini-ready, but I do see the satisfaction that everybody gets out of it.

The athletic rewards are great maybe even greater than when I played football. The effort is more varied and more focused on all-round training of the whole body. Though I do miss the social advantages of football, since I have fewer ties now with teammates. Not that there's no eagerness to enjoy a beer afterwards, but the facilities are simply lacking. If only the tennis club was more open, or if Fleuopark had a clubhouse for everybody who plays sports in the park.

Wendy van Kessel (Urhahn)

Historical canon of sports

1800

Ice skating at the Buiten-Amstel

Water has been the setting for sports for many a year: rowing in the summer, skating in the winter

1850

De Hoop rowing and sailing club on the River Amstel

1928

Olympic Stadium, built for the Olympic Games. Van Eesteren designs the forecourt and infrastructure.

Plan Zuid: space for sports in the design of an urban district

1929

Athletics meeting on Olympiaplein. Plan Zuid by Berlage in 1914 is the first time that sports facilities are integrated into an urban design. This was essentially a social-democratic idea (the government is responsible for public health).

De Mirandabad, Amsterdam-Zuid

1930

Linnaeushof. Built between 1925 and 1935 as an introvert, Catholic neighbourhood. Houses for the congregation are grouped around the church. The centrally located tennis courts date from this period.

1932

Planned sports in post-war districts

1935

Facilities for sports, playing and leisure activities are incorporated into the General Extension Plan for Amsterdam (AUP) of 1935, designed by Van Eesteren and realized after 1945. A number of amenities, carefully calculated, are allocated to each district and neighbourhood. They are used intensively, since almost nobody owns a car. People turn to sports and leisure activities close to home.

1937

Design for Amsterdamse Bos, plan from 1927 designed by Van Eesteren and Mulder. Amsterdamse Bos is the biggest of the green wedges and is incorporated into the AUP. The aim is to increase opportunities for recreation and leisure activities in the city. A total of about 900 hectares of forest are planted, including a rowing lake, riding stables, a water sports centre, sports fields and a hockey stadium.

Sloterplas

1957

Urban expansion separated by 'green wedges'

'Green wedges' are introduced in the AUP. The city expansion plan takes the form of areas of development separated by wide green zones that penetrate deeply into the city. As a result, the landscape, even today, is always nearby.

During this period, sports complexes in the city close down to make way for housing, businesses, docks and infrastructure. Large, modern sports complexes are built on the edge of the city, among them Sportpark Ookmeer, beside Geuzenveld-Slotermeer.

1960

The entrance to Sportpark Ookmeer with De Poort van Constant (designed by Constant Nieuwenhuis, c. 1960).

1960

Sports as an urban project

In the 1960s the need arises to provide facilities for sports, which had previously been mostly practiced outdoors, in the cold and wet months. The city of Amsterdam builds and renovates sports halls throughout the city. An example is Van Hogendorphal in the Spaarndammerbuurt neighbourhood.

Running trail in Amsterdamse Bos, 1968. The city of Amsterdam promotes public sports amenities and designs jogging trails and training equipment in forests and parks to stimulate running. The popularity of sports in public spaces increases slowly.

1968

1980

Period of decline and growth

The policy of growth centres takes shape in the 1980s. The city loses inhabitants to towns such as Purmerend, Lelystad and Hoorn. This causes a decline in the number of people doing sports, which in turn leads to the closure of some sports parks (among them Sportpark de Aker) and some clubs merge.

Amsterdam starts to grow again after 1995, and the city has to find new expansion and densification locations for housing. The redevelopment of the former Ajax stadium (de Meer) on Middenweg in 1996 is an example of densification in the city. Large sports complexes such as De Toekomst are allocated sites on the edge of the city.

1995

Revaluation of sports in the city

Olympiaplein, renovation in 2007: a revaluation of sports in the city. Space for a football club, a sports medical centre, a skate park and tennis courts.

2007

The Cruyff Courts, which appear in more and more neighbourhoods, illustrate the increasing social importance attached to sports. The courts are primarily intended for football, but they can also be used for other sports and games. In many neighbourhoods, the Cruyff Court is where youths meet up.

2008

Friday Night Skate. Highlight in 1999, with 3000 participants.

Sports as part of urban lifestyle

More and more people practice sports on their own in the city. Sports become part of a lifestyle, and sports enthusiasts like to be seen and admired: the city as gym.

Fitness in the Nelson Mandelapark.

2014

2010

Urban Sports Week Amsterdam, 2017, Museumplein.

Calisthenicspark Osdorp.

2017

Sportas

Sportas connects the city with Amsterdamse Bos. Sportas is a sports route along which all sorts of sports facilities are located.

An illustration of design tool 5.5 Shared sports accommodation, page 126

Sportas connects all sorts of sports and leisure possibilities. One of them is the athletics track. It is open to the public, located right next to the Sportas and makes a pleasant addition to the route taken by runners.

An illustration of design tool 6.2 Green routes for sports, page 128

The Sportas itself is a wonderful route for runners and cyclists and connects the city to Amsterdamse Bos. A start and finish line, hard surface and water points make the route attractive.

Client: City of Amsterdam
Design cycle/walking route: City of Amsterdam

The green surroundings of the park offer attractive scenery for a training. The athletics track itself – open to the public – is an invitation to sprint.

The value of sports in the city

Bring sports into the limelight

Vincent Kompier and Daniel Casas Valle
Vincent works as an independent author and urban researcher. Daniel is an urban designer. Together they advise on the relation between urban development and sports, games and physical activity.

Sports fields in the middle of the city are of great value: they give a place identity and meaning, provide air and greenery, and contribute to social cohesion. And above all, they enable residents to be physically active in their neighbourhood. Place sports in the middle of the city and do not consign them to the edge, because it is too valuable for that. Sports are of great benefit for the city of today and tomorrow.

SPORT ALS VESTIGINGSVOORWAARDE

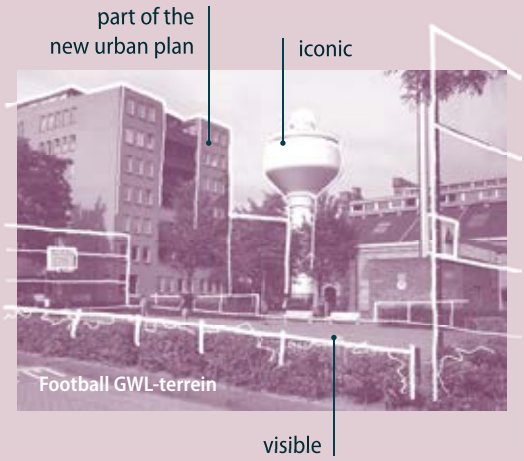
Sports and physical activity are becoming increasingly important in daily life. For many people they are part of their lifestyle. The ability to do sports and physical activity in the neighbourhood – indoors or outdoors, organized or not – contributes to the quality of life. For other people who do less sport and lack the financial means to frequent a sports club on the edge of the city, sports in the neighbourhood are a dire necessity.

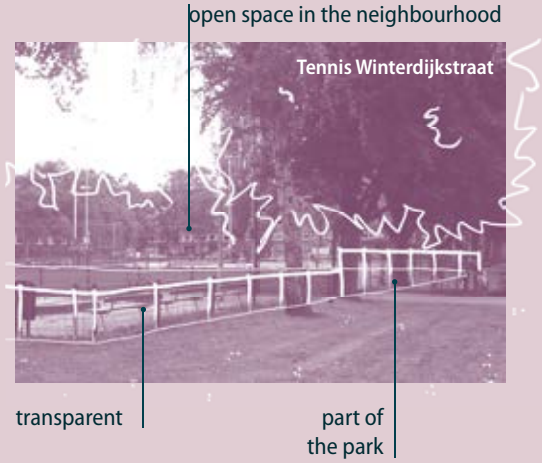
Start by creating space for physical activity in city development. Make them as natural as lampposts and trees.

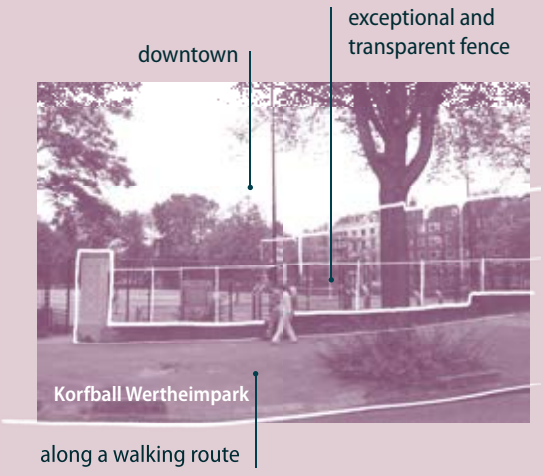
In the past, people went and lived where there was work, or worked where they lived. For many new city dwellers, this time has passed. The conditions that draw individuals to a city to try their luck, or that draw companies that need a well-educated workforce that wants to live comfortably, are shifting towards social values such cultural venues, good schools, sufficient greenery and good possibilities for sports and physical activity. Sports, exercise and games are important draws for new city dwellers. Olympiaplein, as well as smaller complexes such as the tennis courts at Linnaeushof and Winterdijkstraat, have demonstrated their value for decades. Small sports facilities in parks such as Wertheimpark, Vondelpark and Erasmuspark are also of added value. At the more recent Laan van Spartaan, a former sports complex, sports

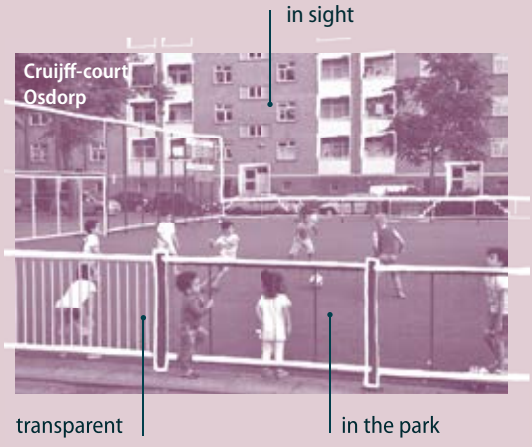
Place sports in the middle of the city and do not consign them to the edge.
In the Kolenkitbuurt sports are part of the urban-renewal plan.

Good examples of the integration of small-scale sports elements in the city.









have also been made a central element. Cities like Amsterdam can profile themselves much more strongly with these social values. Sports in the neighbourhood are values that help cities stand out!

OPPORTUNITIES FOR ZUIDAS AND MARINETERREIN

The huge potential of the city as an everyday space for sports and physical activity is not exploited everywhere. Take Zuidas for example, an area where development is heavily determined by the pressure of property and profit. Here lie untapped opportunities to embrace the tradition of sports and physical activity, which once existed here, as a distinguishing quality. Opportunities for sports, leisure and physical activity in and around Zuidas could be greatly improved (the lunchtime stroll, the running session after work, and the 'company boot camp') by making good connections with Amstelpark, Beatrixpark and Amsterdamse Bos. And it is of course a pity that The Rock office building offers no climbing facilities. But what is not there can still be created!

Opportunities for sports 24/7 would be a perfect addition in the transformation of Marineterrein into an attractive location for international businesses. The idea of the city as one big space for sports and physical activity can become a reality at Marineterrein. The public space and existing buildings lend themselves excellently for (temporary) sports activities, from swimming and yoga to football. Exploit existing qualities: make the existing dock suitable for swimming. That would enhance the value of what was an inaccessible piece of the city. The development of Marineterrein shows a revolution in the way we plan and develop the city. Do not add sports and physical activity activities as an afterthought, once a development is gleaming in all its newness. Instead, make the area and surroundings more attractive by programming sports and physical activity in advance.

SPORTS AND PHYSICAL ACTIVITY: THE BASIS FOR CITY DEVELOPMENT

Start by creating space for physical activity in city development. It provides a strong basis for sports and activities in neighbourhoods. Hence the call to 'bring sports into the limelight'. Take a broad view of sports and physical activity in the city and do not view them as incidents or sports marketing tools. Make them as natural as lampposts and trees.

Related design tools for this article:
5.1 Sports facilities in the neighbourhood
5.4 Visible sports facilities
page 126
6.2 Green routes for sports
6.4 Sports areas in the neighbourhood
page 128
7.1 Swimming water
page 130

Olympiaplein

Football pitches at a central location in Amsterdam-Zuid. Part of the celebrated Amsterdam-Zuid plan by urban designer Berlage.

An illustration of design tool 5.1 Sports facilities in the neighbourhood, page 126

Olympiaplein is located at the heart of the neighbourhood: a unique sports facility for both structured and unstructured sports.

An illustration of design tool 5.4 Visible sports facilities, page 126

The square is surrounded on all sides by housing. The fence around Olympiaplein is an artwork in its own right: transparent and distinctive. The pitches are visible and part of the neighbourhood.

An illustration of design tool 5.6 Shared sport facilities, page 127

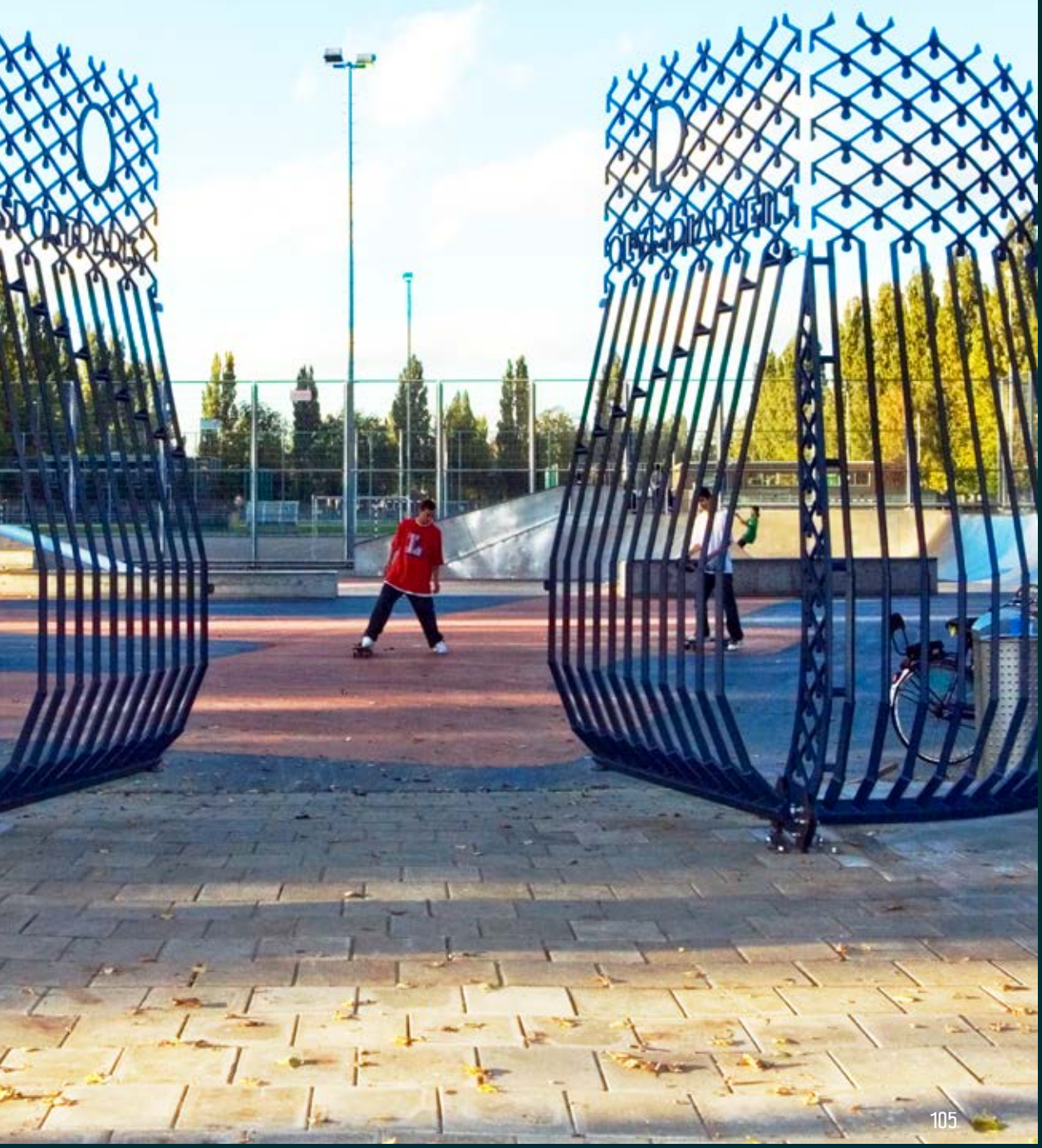
The football pitches are intended for multipurpose use: not only for clubs but also for local residents and surrounding schools. Located in the middle of the square is the Sport Medisch Centrum.

An illustration of design tool 5.7 New forms of sport, page 126

Olympiaplein provides space for new forms of sport: for example, teams can play five-a-side football.

Client: City of Amsterdam
Design: VHP Landschapsarchitecten (outdoor space) and Ruud-Jan Kokke (fence)

Olympiaplein has demonstrated its value for decades, changes with the times, and is the ultimate example of sports in the neighbourhood.



Laan van Spartaan

Inner-city football pitches, combined with space for play and sports, form the heart of a metropolitan neighbourhood

An illustration of design tool 5.1 Sports facilities in the neighbourhood, page 126

This site in Bos en Lommer includes the football pitches of VVA/Spartaan, the club originally based here. The pitches and a surrounding zone with amenities for sports, games and relaxation determine the identity of this residential development.

An opportunity for design tool 5.4 Visible sports facilities, page 126

The pitches have a transparent, recognizable enclosure. The pitches and surrounding zone form the heart of the neighbourhood. Residential buildings overlook the pitches.

An opportunity for design tool 5.7 Shared sports facilities, page 127

The football pitches are fenced off, but a public route (including bridge) cuts between them. The local school uses the pitches. The sports facility is not viewed as 'open and public'. Avoid separate worlds and ensure that sports are an integral part of the neighbourhood, in both design and use.

An opportunity for design tools, 6.1 Unprogrammed public space, 6.4 Sports areas in the neighbourhood, 6.5 Incentives for sports, page 128

The edge zone houses all sorts of sports and play facilities. Because the zone is narrow and bordered by fencing, water and parking spaces, it is used too little. Integrating the football pitches and the sports and play zone would have been wiser. In addition, parked cars between the residential blocks and the play zone create a barrier. Fortunately, the play zone along the water is much better used.

Client: City of Amsterdam
Design: Dijk&co Landschapsarchitectuur (outdoor space); Carve (play equipment)

In the design process, the football pitches and fencing were designed first, and after that the sports and play zone around them. That's why they feel like two different areas.

Streetwise

Rick Groeneveld and Frits Erdmann
Rick and Frits are urban designers at Urhahn.

Where can the city dweller do sports? Football pitches, indoor tennis courts and other large-scale facilities are often located on the edge of the city. Which is a pity, because visible sports 'just around the corner' are important: not only for health, but also for social cohesion in the neighbourhood. Luckily, there are plenty of sporty city dwellers who use the scarce space smartly and do sports, organized or not, in the middle of the city. Flexibility in time, space and form of sport are important aspects. Three examples explain that the city can contribute positively.

PIONEERS

As the name implies, free running means that athletes move freely through public space. Obstacles on streets and buildings are used as elements to do acrobatic stunts. No facilities are needed for this sport. We see that the city wants to facilitate the popularity of this form of sport. That is illustrated by the free running trail around Sloterplas. Although the real free runner probably prefers to practice the sport in the wild, this constructed trail offers low-threshold access to the sport for local children.

MUTATIONS IN SPORTS

Olympiaplein in Amsterdam-Zuid is the home of Swift football club. A portion of the park has recently been designed for Powerleague football. This new form of football (five-a-side) makes the game more accessible for more people on a relatively small and valuable piece of land. The pitch is located in the middle of the neighbourhood. Olympiaplein has proven its value for decades, and is now proving once again that football pitches can mutate innovatively and be of timeless value in the city.

Free runners can practice their sport anywhere, at any time. Create space for this type of use of the city by not always securing and fencing objects in public space.

Six 'Powerleague' pitches have been created on Olympiaplein for five-a-side games. The pitches can be rented by the hour. No membership is needed. Just turn up for a spontaneous game of football with your friends. The café and changing rooms are shared with Swift football club.

NEIGHBOURHOOD RESIDENTS AND INITIATORS

Parks are often the setting for various sports activities. Self-organized groups of people go there to run, skate or play football. Fitness clubs and individuals organize outdoor activities such as boot camps and power training sessions. Parks offer an alternative to the gym. The new Calisthenics Park in Nieuw-West responds perfectly to this development. It offers a broad range and is popular among all target groups. The initiative for the park came from local residents themselves. Funding was secured and construction carried out in collaboration with the local council. It has become a local meeting point that accommodates sports enthusiasts and local residents alike.

Proximity and flexibility are important for keeping sports in the city. They ensure that sports remain easily accessible for everybody. To guarantee the visibility and proximity of sports, Amsterdam needs pioneers and daredevils who can demonstrate the usefulness of the scarce space in the city.

Related design tools for this article:
5.3 Smaller sports areas
5.5 Shared sports accommodation
5.6 Shared sports facilities
page 126
6.1 Unprogrammed public space
page 128

Sloterplas free running trail

A public free running trail along the banks of Sloterplas

An illustration of design tool 6.5 Incentives for sports, page 128

The public free running trail offers local youths a place to do sports on their own initiative, without joining a club. Children can use the equipment for play.

An illustration of design tool 6.1 Unprogrammed public space, page 128

The 'I Amsterdam' letters and individual structures positioned along the trail offer opportunities for games and sports and provide space for all forms of play and physical activity. They do not dictate use.

An illustration of design tool 6.2 Green routes for sports, page 128

The free running trail is linked to the 'Sloterplas Trail', a popular route around the lake popular among runners: park, water, sports and recreational use are connected to each other.

Client: City of Amsterdam
Design: OWNERstudios

Urban sportspeople climb, cycle and jump over the 'I Amsterdam' letters on the free running route. Together with runners and local children, they add vibrancy to the banks of Sloterplas.

Data-based design

Thijs Dolders and Mart Reiling
With their company Track Landscapes Thijs and Mart analyse activities in public space with crowd-sourced data. They use that data to create designs for the active use of the (urban) landscape.

How does the sports enthusiast use space? The answer to this question offers a logical point of departure for exploring ways to design outdoor space in an active way.

SPEAKING WITH YOUR FEET

A new method makes it possible to collect data from the mobile apps of thousands of runners, walkers and cyclists and to visualize their movements. The resulting images reveal our movement preferences, how we perceive space, and where space is not optimally used. What makes this data so unique it that it offers an instant overview of actual use. This never previously gained insight provides input for design.

RUNNER-FRIENDLINESS OF AMSTERDAM

A study to analyse the behaviour of runners in Amsterdam collected data from 110,000 runs. Examining differences between daytime and evening use of space and between short-distance and long-distance runs can help identify 'weak spots' in the 'running network'.

The data shows which places are avoided after dark. For example Rembrandtpark, which is considered unsafe in the evening. A comparison between short- and long-distance runners reveals that lots of people perceive Rembrandtpark as an uninviting place even during the daytime – a run around in the Rembrandtpark is simply too short. Long-distance runners tend to use the park as part of a longer run, often in combination with Vondelpark. Accordingly, new connections are desired to improve the trails used by long-distance runners.

In addition, the banks of the Schinkel – the historical waterway between Rembrandtpark, Vondelpark and Amsterdamse Bos – are used by short-distance runners only. Data shows that runners turn off where infrastructure interrupts the quays. Long-distance runners cannot use the quays without stopping and therefore avoid Schinkel. That's a pity, because many runs actually start in the surrounding neighbourhoods.

ACTIVE DESIGN

The data analysis tells us which places can be improved for exercise and running. For example, by better lighting and better connections between parks and their environs. More runners, cyclists and walkers ensure more liveliness and improve safety. Recognizing runners, cyclists and walkers as main users offers clear pointers for the design of the city. Popular starting points could be made more attractive with the addition of an urban gym, lockers and a water point. Ultimately, everything starts with knowing and understanding how we move. Data can help us in that regard.

Related design tools for this article:
5.4 Visible sports facilities page 126
6.2 Green routes for sports
6.6 Facilities page 128

Runkeeper Data

In the dark
2055 activities

Short distances < 4.5 km
3070 activities

Long distances > 9 km
6183 activities

De Mirandabad

De Mirandabad swimming pool is located on the edge of Amsterdam-Zuid. The pool contributes to an active city, but two smaller objects are also worth mentioning: the facilities on the forecourt and the play area that doubles as a water storage facility.

An illustration of design tool 6.6 Facilities, page 128

The lockers and water sources are a starting point and meeting point for informal sports, such as boot camps and running. It is important to place these facilities smartly at strategic points along sports routes, preferably close to a café.

An illustration of design tool 10.5 Climate adaptation and heat stress, page 172

Located in front of De Mirandabad is a play area that acts as a water retention facility during wet periods. Sometimes it is a playground, sometimes a water feature, sometimes a venue for boot-camp exercises.

Client: City of Amsterdam
Design: City of Amsterdam

Runners meet up at the lockers, fill their bottles, and then set off together towards the Amstel.

Meerpark

Meerpark combines sports fields and an area with sports and play possibilities in a new city park on the edge of the city

An illustration of design tool 5.2 Big sports facilities on the edge of the city, page 126

Meerpark is about 40 hectares in size, located on the edge of the city, and well-connected to the surrounding neighbourhoods by a cycle route.

An illustration of design tool 5.5 Shared sports accommodation, page 126

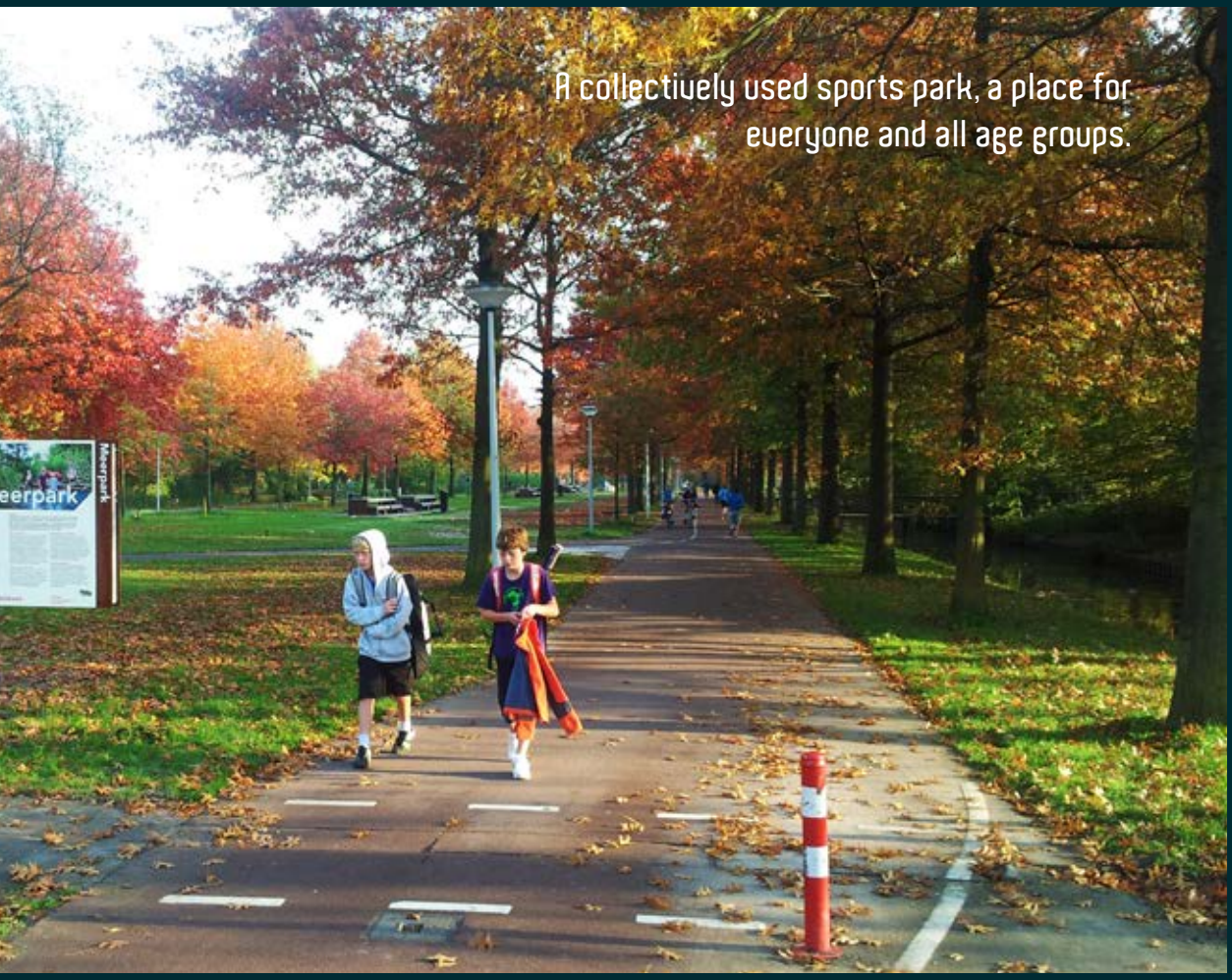
Fences have been removed so that Meerpark can also be used for unstructured sports and by many user groups.

An illustration of design tool 10.3 Parks with plenty of space, page 172

The park is sufficiently sized to accommodate all users. There is space for sports, relaxation and play. The allotment gardens are linked to routes through the sports park.

Client: City of Amsterdam
Design: Carve

A collectively used sports park, a place for everyone and all age groups.



Breathing space on the water

Ingeborg van Lieshout
Ingeborg publishes about innovation and green ideas by Dutch designers and architects through her company TheGreenLightDistrict. She is also a sup instructor.

Living on a houseboat, I'm right at the heart of things. Observing how people use my watery surroundings has become a persistent professional defect, even though it's been years since I worked was an urban planner. My first summer on board, I awoke every morning at 8 am to the spectacle of little yellow boats sailing past by bedroom. They turned out to be from the Nautiek summer camp. During the holiday period, parents bring their children during office hours and after school hours to a ship on Veemkade. For sailing in the city is possible in Amsterdam. Provided you have the use of a waterway, a place to store boats, and a ramp to get them in and out of the water.

I got a stand-up paddle board (sup board) for my birthday. I'd no idea how to sup, but I did know how to find out. Now I've become a sup instructor myself at Nautiek, and I take groups on paddles through Ertshaven, IJhaven and the canals of Java Island. A participant once called it a city walk on water, while another felt like Jesus. Once you get the hang of it, you can manage a proper trip around Entrepothaven (Harbour club), Oostenburgergracht (Scheepvaartmuseum), Oosterdok, through the IJ, past the cruise liners at the Passenger Terminal, and back again to the quay. We've often dreamed of a short-cut from Roest to Pakhuis de Zwijger, or from Borneokade to Winkelcentrum Brazilië. It wouldn't have to be an amazing canal – kneeling to pass through a tunnel or even walking along a jetty if needs be would suffice. A close-knit water

The jetty in front of Vrijburcht is located at the most beautiful spot on the island. Oriented to the south-west, so sun all day. The outdoor seating area of Vrijburcht restaurant is located right opposite the jetty. As a result, parents are nearby while children enjoy the freedom.

Azartplein on Java Island. The steps down to the water are the starting point for a trip around the island on a sup.

Aldo van Eyck's wading pool in Oosterpark, with its distinctive stepping stones and concrete edge, was given a contemporary addition in 2012 that blends with the original design in design and scale. That has turned the renewed wading pool into a magnet for city children again.

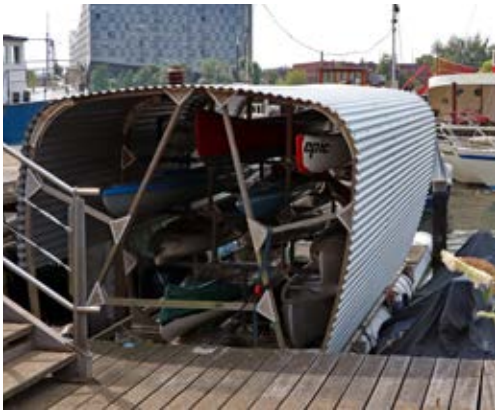
network to facilitate slow traffic is lacking, as are places to enter and exit the water. For example, the spot where Vera, my sup mate, entered the water is now a construction site for a big apartment complex called 'The Fountainhead'. She's yet to find an alternative, which is why I haven't seen her on the water all year.

In the summer there's always a holiday atmosphere around here. My neighbour goes wind surfing on an old door, a cranky odd geezer rows by on a slender skiff with mirrors to see where he's going, a self-made catamaran speeds across the surface, the odd diver strolls along the quayside carrying his cylinders, a bunch of fanatic swimmers in wetsuits and garish bathing caps pass by freestyle, sloop rowers are cheered on for their effort, sometimes someone tries to surf the waves behind a boat, and the woman next door has bought a peddle boat. Unfortunately there's a waiting list for a spot on the canoe storage boat here in the dock. From my front deck I can hear the cheerful summer sounds from the jetty at Levantplein, where there's plenty of splashing and splattering. Everything that floats enters the water. It's got something of that Amsterdam 'can do' mentality. After all, the water is our space too, space to literally move. Water provides a breath of fresh air when the warm city gets too crowded.

How different things are in winter! My houseboat neighbours retreat indoors. In the silence you see a tiny orange vessel crossing through the harbour – the all-weather swimmer with his orange float to ensure a safe passage between passing boats. An occasional sup passes by too, no doubt in search of emptiness, in body and mind. People return to the water in large numbers one last time for the Amsterdam Light Festival. Amateur fishermen with electric engines glide by silently in the cold. Now the water has become a space to move through for relaxation.

Related design tools for this article:
7.1 Swimming water
7.2 Accessible swimming water
7.3 Accessible water sports
7.4 Close-knit water network
page 130

Sloterstrand is an urban beach, well-oriented to the sun, with free deckchairs, parasols, picnic tables and a beach volleyball area.



Canoe storage on the dock at Levantkade. You can access the water from the ramp attached to the jetty.

Sportplaza Mercator

Sportplaza Mercator is more than a health facility in the neighbourhood, it offers possibilities for care, sports, and encounters

An illustration of design tool 5.4 Visible sports facilities, page 126

Passers-by see the swimming pool and the gym through a transparent facade to the street. This 'display window' filled with swimmers and gym enthusiasts literally makes sports visible in the city. The outdoor pool and surrounding greenery add 'air' and a green oasis to the neighbourhood. The design challenge is on the one hand to add greenery and space to the neighbourhood, and on the other to ensure the privacy of swimmers.

An illustration of design tool 5.5 Shared sports accommodation, page 126

Viewing a sports facility as a multipurpose complex increases the possibilities of use. At Sportplaza Mercator, the users (fitness, swimming pool, café, party room) share some facilities, such as the entrance hall and café. Spatial and visual connections between the functions of the building increase the chances of encounters between users. An important lesson: involve users and operators in the design right from the start, so that their wishes can be incorporated straight away and synergy among users ensured.

Client: City of Amsterdam and Sportfondsen Nederland
Design: VenhoevenCS architecture+urbanism

Involve users and operators in the design right from the start.

Smartly connecting functions to a swimming pool adds lots of value. Space can be shared, the pool acquires more neighbourhood functions, and the financial operation is more lucrative.

Design tools for sport

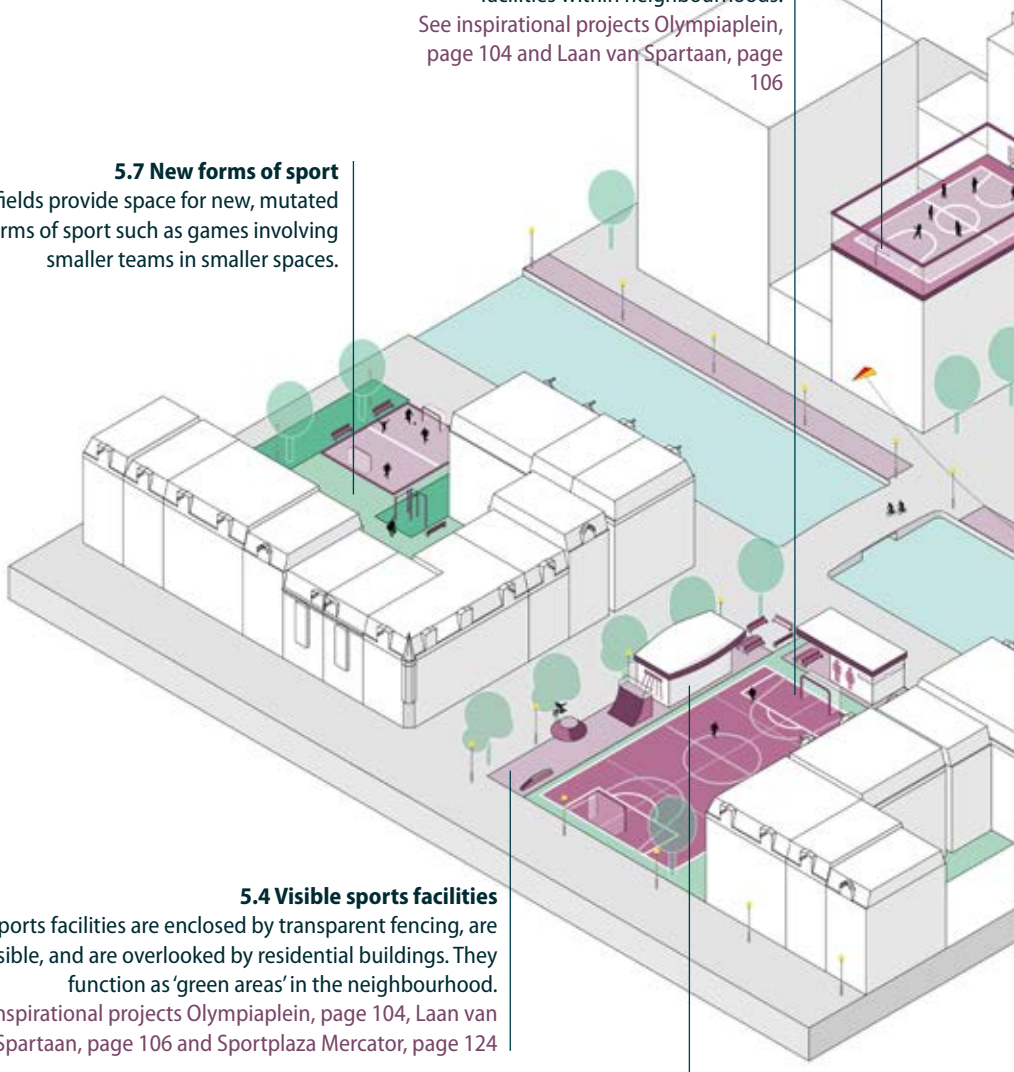
Ambition 5. Open sports

The active city offers plenty of sports facilities in the middle of the city. They are 'open': visible and accessible. They enhance social cohesion in the city.

5.3 Smaller sports areas
Unused urban spaces such as the school roofs and car parks are used as alternative places for sports.
See inspirational project Spoorpark, page 72

5.1 Sports facilities in the neighbourhood
The city retains and provides small sports facilities within neighbourhoods.
See inspirational projects Olympiaplein, page 104 and Laan van Spartaan, page 106

5.7 New forms of sport
The fields provide space for new, mutated forms of sport such as games involving smaller teams in smaller spaces.

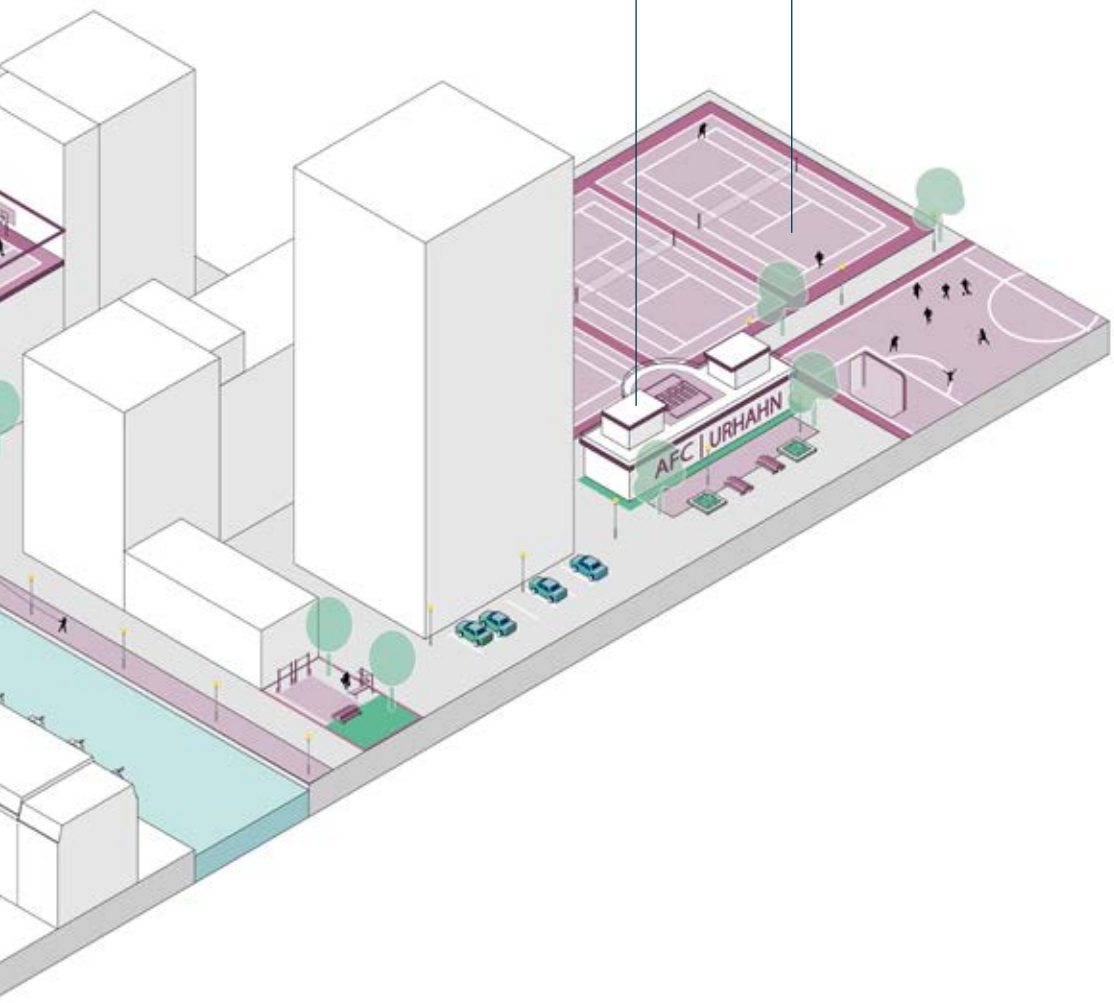


5.4 Visible sports facilities
Sports facilities are enclosed by transparent fencing, are visible, and are overlooked by residential buildings. They function as 'green areas' in the neighbourhood.
See inspirational projects Olympiaplein, page 104, Laan van Spartaan, page 106 and Sportplaza Mercator, page 124

5.5 Shared sports accommodation
Sports facilities are used by clubs, by the neighbourhood and by surrounding schools.
See inspirational projects Sportas, page 98, Olympiaplein, page 104, Laan van Spartaan, page 106, Meerpark, page 118 and Sportplaza Mercator, page 124

5.6 Shared sports facilities
The spontaneous sports enthusiast can make use of sanitary facilities, cafés and lockers. They encourage sports, collaboration and overlapping functions, and save on costs and space.
See inspirational project Olympiaplein, page 104

5.2 Big sports facilities on the edge of the city
Larger sports facilities are located on the edge of the city. They are well-connected to the city by safe cycle routes.
See inspirational project Meerpark, page 118

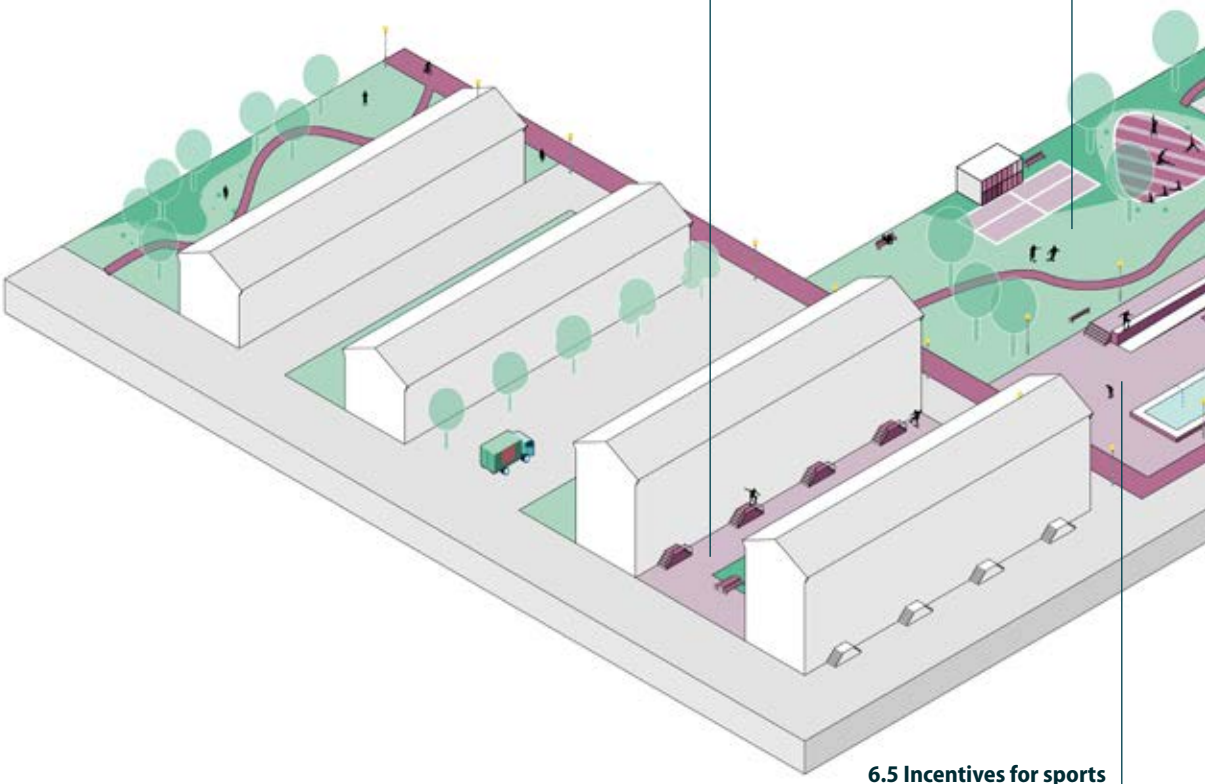


Ambition 6. The city as gym

In the active city sports can be played anywhere,
in places designated for that purpose or elsewhere.

6.3 Sports in parks
Parks provide plenty of space, allowing for sports and leisure activities to occur at the same time without hindering one another. Sports need not be consigned to 'standard' fields, are not segregated, and are an integral part of the park. (See also 10.3)
See inspirational project The new urban park, page 16

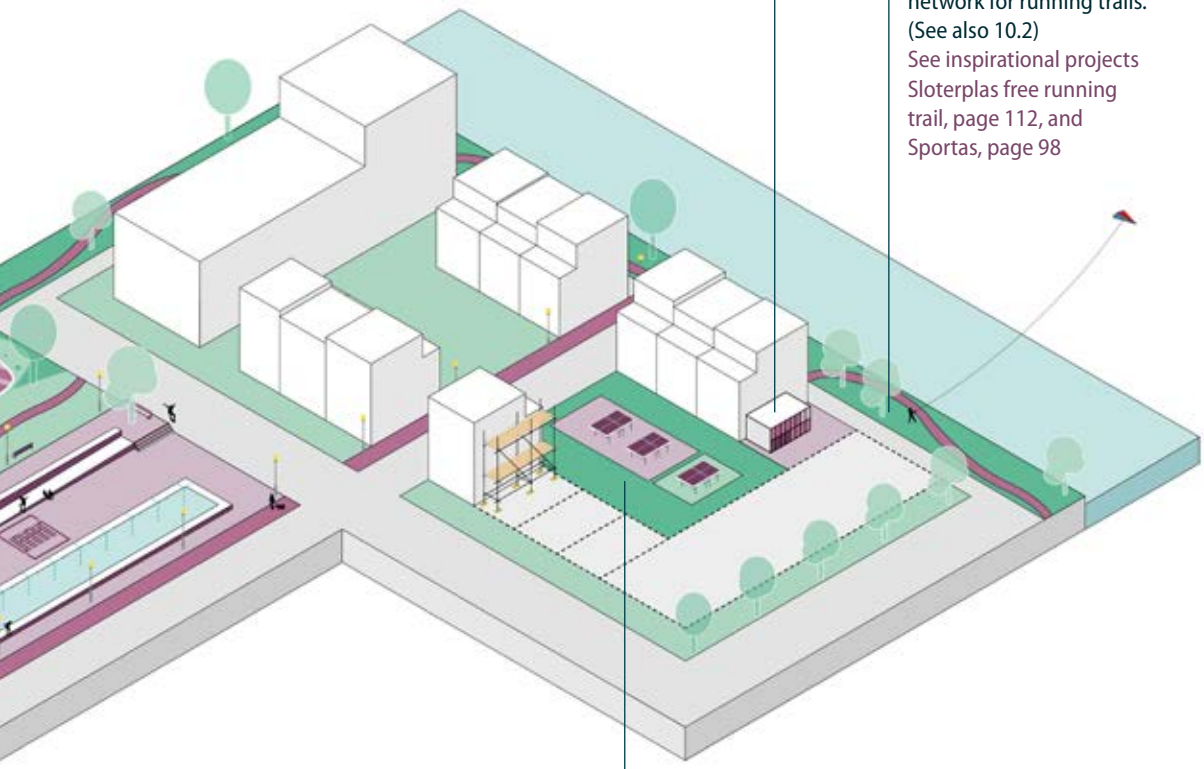
6.1 Unprogrammed public space
Public space is not totally designated and programmed. Sports can take place anywhere.
See inspirational projects Laan van Spartaan, page 106, and Sloterplas free running trail, page 112



6.5 Incentives for sports
The city provides incentives to play sports. Simple posts, benches and trees often provide an incentive for boot camps, football matches, urban sports, etc. (See also 8.1)
See inspirational projects Laan van Spartaan, page 106, and Sloterplas free running trail, page 112

6.6 Facilities
The city provides facilities (sanitary units, safes, water) for unstructured sports, especially along busy sports routes.
See inspirational project De Mirandabad, page 116

6.2 Green routes for sport
Parks and water are connected by attractive green routes (with unpaved surfaces). Together they form a network for running trails. (See also 10.2)
See inspirational projects Sloterplas free running trail, page 112, and Sportas, page 98

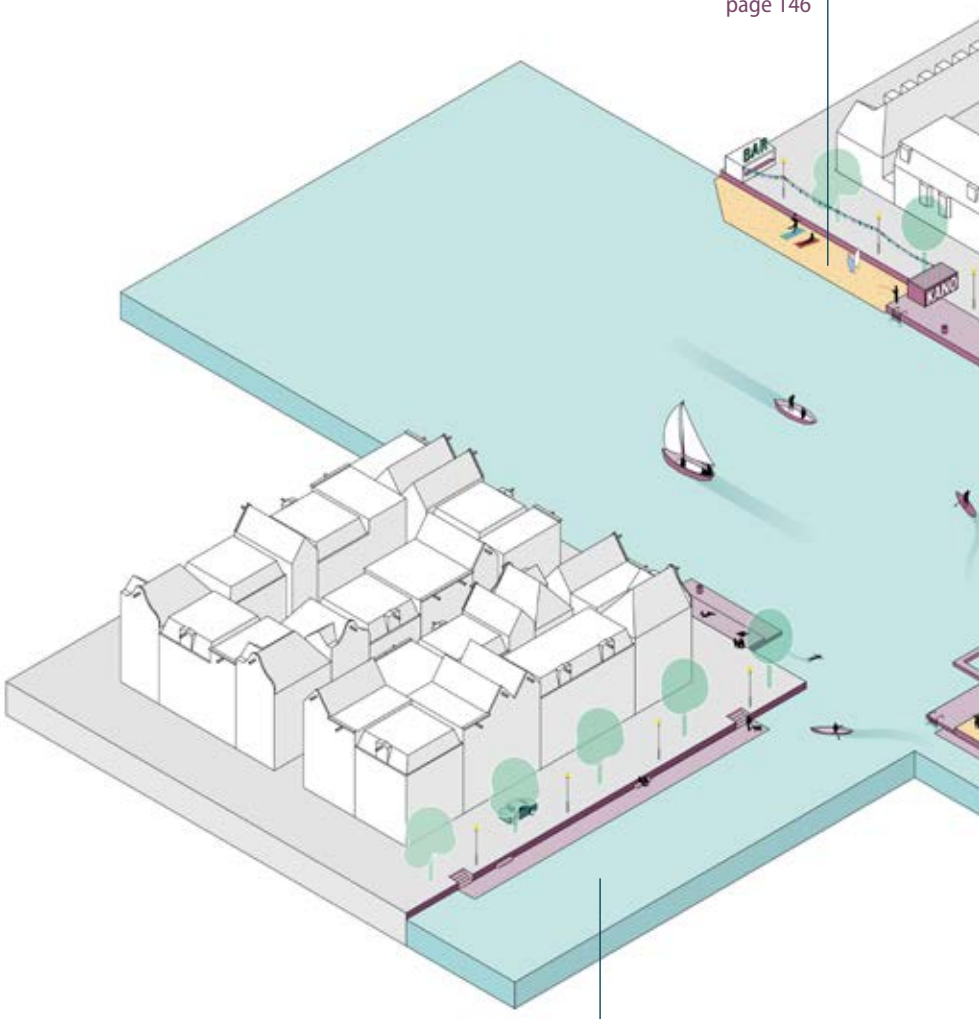


6.4 Sports areas in the neighbourhood
In the neighbourhood there are many small-scale sports areas for youths. These places are public and safe.
See inspirational project Laan van Spartaan, page 106

Ambition 7. Water is active space

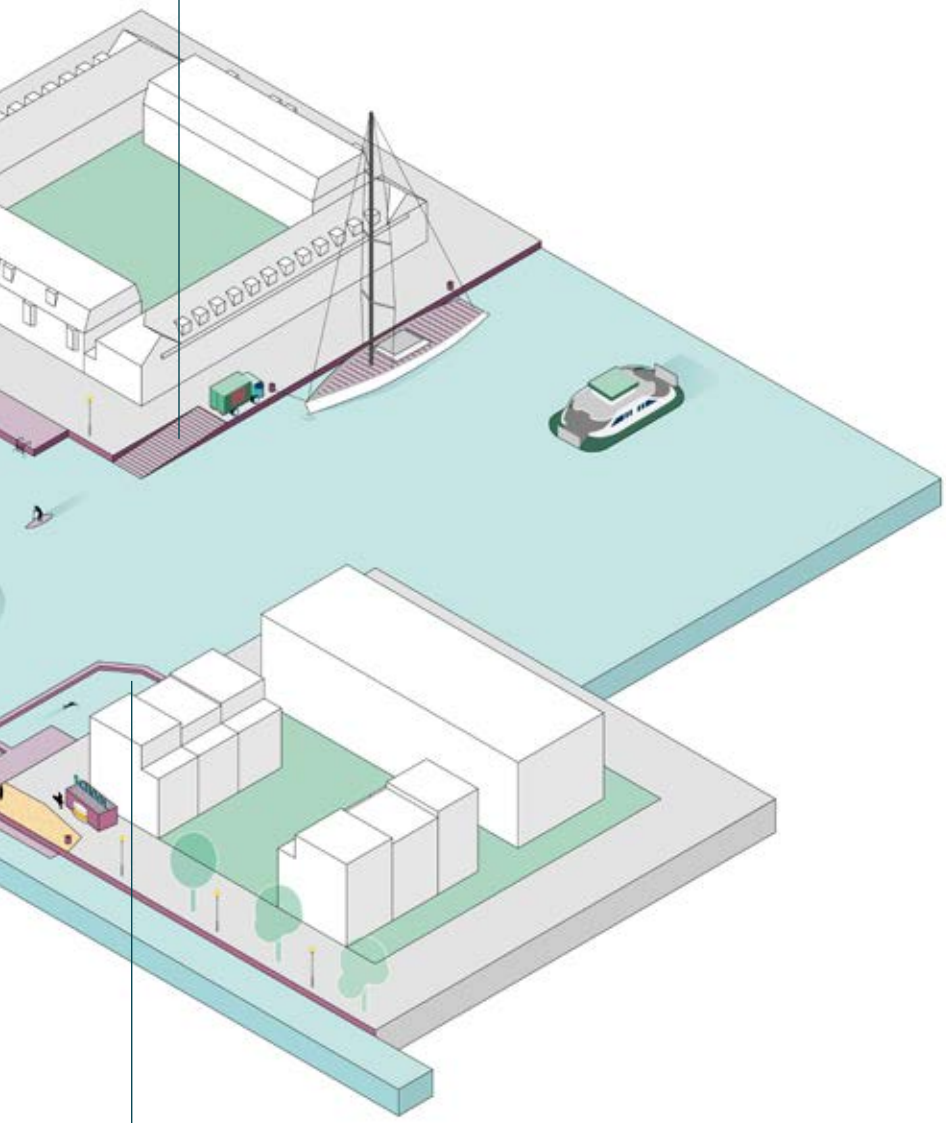
The water in the city is used as space for sports and physical activity: for swimming and water sports.

7.2 Accessible swimming water
Jetties and platforms in various places provide access to the water.
See inspirational project Blijburg, page 146



7.4 Close-knit water network
A close-knit and complete water network facilitates the use of water by water sports enthusiasts.

7.3 Accessible water sports
Jetties, beaches and ramps provide access to the water for water sports enthusiasts. Storage facilities for sups, surfboards, small sailing boats and canoes are also provided.



7.1 Swimming water
There are plenty of opportunities for swimming in designated lakes on the edge of the city, and also in the city centre.

Play & leisure activity

Play & leisure activity

Playing outdoors is good and healthy for young and old. For children it stimulates motor development, spatial insight, creativity and the development of social and cognitive skills.[37] For adults and seniors, playing outdoors – call it leisure activity – ensures that the brain functions better and offers possibilities for maintaining social contacts, thus helping to prevent loneliness.[38] Who doesn't want that!?

PLAYING OUTDOORS IN A DENSE CITY

Children play less and less outdoors. In the Netherlands over the past decade, the amount of time spent playing outdoors has dropped by half an hour: from 3 to 2.5 hours a day.[39] Just a fifth of Amsterdam children play outdoors every day.[40] We know the causes: both parents work, have busy schedules, have unfounded fears. But the design of the city also plays a role. Play spaces in the city can be dull or are considered unsuitable, or children are prevented from going to appealing play areas because of safety concerns.

The image varies according to the type of neighbourhood. In high-density neighbourhoods, there is little space for play: sidewalks are narrower, there is a lack of playground space, preference is sometimes given to commercial uses (sidewalk cafés) or parking spaces. Even so, high densities do have advantages: more 'eyes on the street' can increase safety and shorter distances mean more cycling.[41] There is more space for playing in parts of the city with lower densities. Yet that is no guarantee: there are plenty of playgrounds and plenty of greenery, but they are used relatively little because there are plenty of barriers too, and children are often not allowed to play on their own. Social safety and traffic safety are the main obstacles.[42]

RELAXING IN THE CITY AND LANDSCAPE

Young children are most physically active through playing. Physical activity levels decline quickly after leaving primary school. Adolescents and adults also are too little physically active for the same reason. Sports, recreational leisure activities, cycling and walking are their most important forms of physical activity. Seniors are most physically active by walking or leisurely cycling.[43] Nature, art and culture are always more important to them as leisure activities.[44] Outdoor recreation close to home – a walk through the park or a gentle bike tour through the surrounding landscape – is an important source of physical activity, especially for city dwellers.

THE TASK

The active city offers possibilities for play and physical activity for everybody in the neighbourhood. Streets and playgrounds in the neighbourhood are where children learn to develop social behaviour, become independent and develop physically. Children should be able to practice basic movement skills (throwing, catching, jumping, hitting, running, kicking and balancing) in play areas. Parents develop in tandem by establishing social contacts. How can this be achieved in busy city-centre neighbourhoods and in neighbourhoods with plenty of open space?

For adults, the task is to create places where they can relax in the neighbourhood, the city parks and the surrounding landscape. 'Resting places' where they can escape the bustle of the city and have room to be physically active. Three ambitions contribute to an active city in which everybody can play and relax.

Ambitions for play and leisure activity

AMBITION 8. PLACES WITHOUT BORDERS

A flexible layout allows places to be used in various ways. Multipurpose use is facilitated by not allocating space for just one specific function and not enclosing it. Leave scope for the unknown and do not impose narrowly defined use through design. Nothing is more boring than a see-saw or a solitary football cage! What could be more appealing than an unbuilt patch of land where you can do what you want? Learn to appreciate places like this.

By designing play equipment in such a way that it is suitable for various target groups and age groups at various times of the day – after all, a skate track can double as a tricycle track in the morning hours – we can ensure that a playground is used to its full potential. Parents meet up during the day. The proximity of other functions enhances the multipurpose character. The next-door café, overlooking the playground, allows parents to supervise their children. Various uses and various users can strengthen one another, but they can hinder one another too. Well-designed places that are generously sized can succeed. Smart zoning – as opposed to strict demarcating – ensures that everybody benefits from an abundance of space on a site that is used flexibly and where users do not get in one another's way.

Read more: article 'Children in the city', page 148

See also inspirational project Van Beuningenplein, page 158

AMBITION 9. THE LOW-TRAFFIC NEIGHBOURHOOD FOR PLAY AND RELAXATION

The low-traffic neighbourhood provides space for children to play and for parents to take a gentle stroll. The neighbourhood is a 'low-traffic enclave in a busy city'. Speeds are low, which means that play areas and amenities can easily be reached safely. There are attractive places, routes and parks in the neighbourhood for play and relaxation, and where children, parents and seniors can meet one another. For seniors who are less able-bodied, daily physical activity consists of walking to the supermarket or community centre or visiting a friend. For more on this theme, see 'Cycling & Walking'.

Read more: article 'Outdoor children', page 164, and article 'Everything nearby', page 40

Children can play safely on wide sidewalks and play areas: places that offer play challenges, are easy to access and provide safety. The proximity of play areas makes it easier for parents to send their child outdoors at a young age.

AMBITION 10. ATTRACTIVE GREENERY

Young children play in the neighbourhood, while older children seek more adventure. They find it on bigger sites further away. Wachterlied-plantsoen and Woeste Westen are wonderful examples.

The basis for adult physical activity is a close-knit network of walking and cycling routes through the city and surroundings. Simply along a canal, along a city street or through the park. Traditional parks are undisputed, but the 'revamped' or 'new city parks' are also of great significance. Parks where relaxation, sports, entertainment and culture come together, as they do in Westerpark, Park Somerlust and Noorderpark, in combination with the cycle route along the Noordhollandsch Kanaal. The combination of functions gives these parks their distinctive character, and they form the gateway to the surrounding landscape ('green wedges'). Routes through these parks connect city and landscape. Urban beaches also enhance the quality of the city as a place for relaxation and physical activity.

Read more: King of the hill, page 144

See also inspirational projects: Blijburg, page 146, The new urban park, page 160, and Woeste Westen, page 168

The design tools per ambition in perspective, see page 170–173

Artisplein a striking example of a well designed public space for kids and parents. Water provides a motivation for children to play. Parents find seats where they have the possibility to either bring their own snacks or order a drink at the nearby café.

Historical canon

of play and leisure activity

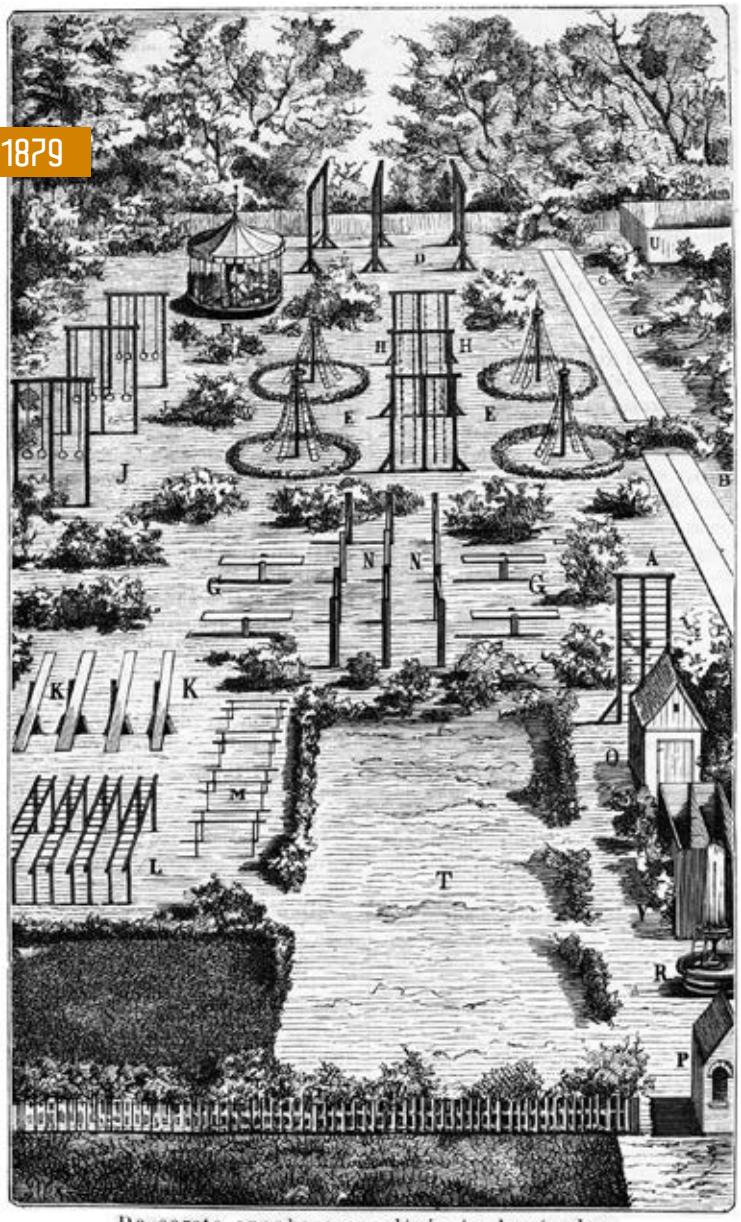
Private initiatives for play and leisure activity

1879

Weteringkwartier. First public playground accessible without charge, developed by private individuals. The equipment is designed by Jacob Olie and produced in his Technical School. The U.J. Klarenspeeltuin playground still occupies this site at Weteringplantsoen.

1894

Vondelpark is the private property of the 'Society for the construction of a park for riding and walking', founded in 1864. Because the society can no longer afford the maintenance, it presents the park to the city of Amsterdam in 1953. Vondelpark had been publically accessible since its opening, but the transfer to the city turns it into a public urban park.



De eerste openbare speeltuin te Amsterdam.

A. Vertikale klimladder. B. Kegelbaan. C. Kegelbaan. D. Schommels. E. Zweefmolens. F. Draaischuitjes. G. Wippen. H. Klimtouwen. J. Handringen. K. Springplanken. L. Horizontale ladders. M. Handbruggen. N. Rekstokken. O. Bergplaats. P. Portiershuisje. R. Drinkfontein. S. Croquet-veld. T. Open speelplaats. U. Retirade. V. Retirade.

The playground: part of the neighbourhood

1903

Oosterspeeltuin, Czaar Peterstraat, 1903. Until the end of the 19th century, playgrounds are founded and managed by wealthy burghers. They are often closed to the public. Working class neighbourhoods have scarcely any play facilities. Shipwright U.J. Klaren thinks that parents themselves should take responsibility. Together with neighbourhood residents, he founds an association to promote the physical and mental development of children in public space. This marks the start of the playground movement. The Oosterspeeltuin playground association is the first result, and the example quickly catches on. The number of playground associations grows rapidly in the 1920s and 1930s, and the 'Dutch Union of Playground Organizations' (NUSO) is founded in 1931.

"It is not the youth that is criminal, but society, for it deprives the youth of all opportunity to play, to develop physically. Give the youth an opportunity to develop physically and combine this with mental development, and they will be elevated. If they are not afforded that opportunity, and if the street remains their playground, it will demoralize them."

U.J. Klaren 1899, as quoted by Peter Selken, 'Uilke Jans Klaren'.

1950

Swimming pool on Gibraltarstraat, Bos en Lommer

St. Elisabeth Gesticht, Mauritskade, playground for orphan girls.

1920

The legacy of Aldo van Eyck: small neighbourhood play areas, scattered around the city

1955

Bertelmanplein, 1950s. You need to be a member to play on the property of a playground association. Moreover, there is one at most in each neighbourhood. The idea of a neighbourhood playground emerges after the war. Aldo van Eyck, urban designer at the Department of Public Works, is commissioned to design a playground at Bertelmanplein by way of experiment. The playground is a huge success.

Laurierstraat playground, designed by Aldo van Eyck. In the thirty years that he carried out commissions for the Department of Public Works, Van Eyck designed some 860 playgrounds in Amsterdam, many of them on vacant sites and corners. Many would disappear owing to urban renewal and urban densification schemes, but the aluminium climbing frames shaped like igloos are now making a comeback on the streets.

Increase in car numbers threatens playing on the street

As the number of cars on the street increases, play space for children is increasingly limited, and playing on the street becomes less safe. Parked cars fill the sidewalks. In working class districts like the Jordaan, local residents set up 'free zones' and claim the street in protest against car-based policies: 'The Freedom Garden', built by local residents on Nieuwe Leliestraat.

1971

1981

Families move away, playgrounds left empty

As a result of the policy of creating growth centres, families with children move out of the city, leaving behind neglected playgrounds. Columbusplein.

Regulation mania leads to uniformity in playground equipment

In the 1980s, families start to return to the city owing to changing policies and the rising popularity of urban life. The abandoned playgrounds begin to enjoy a second life. However, the upgrading of these playgrounds – often fitted with wooden equipment in the 1970s – is long overdue, and the number of accidents rises sharply. From now on, playground equipment has to comply with strict safety requirements asset by European standards. These requirements lead to a high level of uniformity in playground equipment. The so-called 'rocking chicken' is an excellent example of that.

1995

Playground as meeting point

The importance of physical activity through play and leisure is increasingly recognized. Functions in dense city neighbourhoods are often combined, such as here on Makassarplein in the Indische Buurt neighbourhood. The combination of sports, play and leisure activity makes Makassarplein a meeting point in the neighbourhood.

2003

2010

An urban beach for play and leisure activity

Blijburg, the first urban beach in Amsterdam, opens in 2003 as a temporary beach on the northern shore of Haveneiland.

2017

Adventurous play is back!

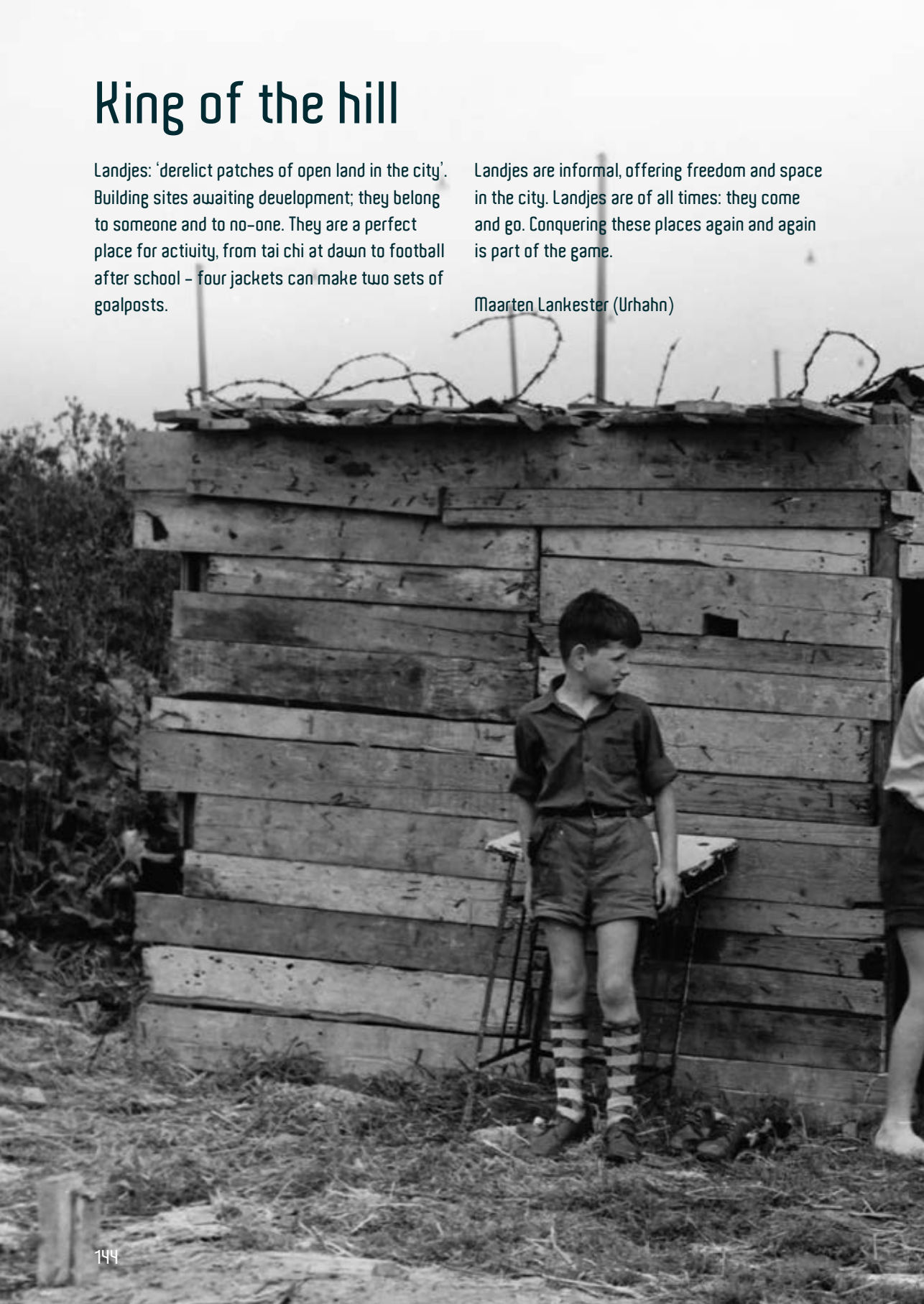
Challenging playground equipment and adventurous play are popular again, such as this climbing wall in Gaasperpark.

King of the hill

Landjes: 'derelict patches of open land in the city'. Building sites awaiting development; they belong to someone and to no-one. They are a perfect place for activity, from tai chi at dawn to football after school – four jackets can make two sets of goalposts.

Landjes are informal, offering freedom and space in the city. Landjes are of all times: they come and go. Conquering these places again and again is part of the game.

Maarten Lankester (Urhahn)



Blijburg

Amsterdam's first urban beach, a travelling circus that has already occupied four temporary locations. A community initiative.

An illustration of design tool 7.2 Accessible swimming water, page 130

An illustration of design tool 8.4 Unused and temporary sites, page 170

The sloping beach allows everybody to swim in the water (IJmeer).

Blijburg is Amsterdam's first urban beach and has contributed much to the identity of IJburg. The beach evolves in response to developments: if a new island is created, Blijburg will locate there, and then the buildings follow. Until the beach relocates again, because Blijburg also moves, and so forth.

Blijburg beach is expansive, with space for picnicking families, cafés, events and so on. Multipurpose use is facilitated by leaving space open and limiting design.

An illustration of design tool 10.3 Parks with plenty of space, page 172

Children in the city

Elger Blitz
Elger is founder and partner at Carve. He is the driving force behind 'new playing'. Elger was educated as an industrial designer and is a passionate skater.

Getting children to be physically active is not an art, because they do it of their own volition. Providing enough suitable space for physical activity and play turns out to be a more difficult task. Places where children can freely move, play and do sports – unprogrammed, unstructured and unsupervised. Creating such places is difficult in a crowded city, but is of vital importance.

The Netherlands has plenty of policies designed to let children grow up healthily, to eat healthily and to play and be physically active regularly. How is this last aspect done in a city like Amsterdam? A city that is growing like other cities, and where available space is under pressure from urban densification. On balance, this means: more users, less space for play, and more demands on space. At the same time, our freedom of movement within the public domain is being limited, in particular because it is seen and exploited as a source of revenue by new parties. More outdoor cafés, but also wider sidewalks for children?

The EU monitor for the ideal city shows that the qualities we are looking for do not lie in a highly dense mega-metropolis, but in a city whose growth is based on the old, but certainly not hackneyed, conviction that a city that is pleasant for children – a playful city of activity – also appeals to adults (adapted freely from Aldo van Eyck).[45]

Van Beuningenplein

You almost invariably see activity and movement on Van Beuningenplein in the Westerpark district of Amsterdam. The functioning of the square can be considered from many perspectives. As one of the designers, I describe our aim with the square as creating space for children in the city, space to play and move. The design of Van Beuningenplein is based on a multitude of activities, space for all sorts of age groups and target groups, and on the possibilities of use changing throughout the day.

The original Van Beuningenplein has to be viewed in the context of the 1901 Housing Act, the resulting emergence of social housing, and the ambition of creating healthier living conditions in highly polluted cities. We can also view the 'playground movement' and the founding of a 'playground association' for Van Beuningenplein in 1908 in this context. In 2008 – exactly 100 years later – plans were drawn up for a car park beneath Van Beuningenplein so that the cars could disappear from the surrounding streets. The extremely dilapidated square came back to life as a 'play area' for the neighbourhood.

Are these swings just for toddlers? Is the plane below a bench or a playing surface? Is the stand in the middle a place to play or to sit? Are the edges behind the basketball hoop intended for skating? And if not, can I skate on them?

ABANDONING EXPECTATIONS

Before I delve into Van Beuningenplein, let me introduce an idea from the authoritative American architecture historian Beatriz Colomina. She argues that it is the mass media in particular that shapes our image of what architecture is and should be. The media representation not only sticks as images in our collective memory but also determines our expectations.

In the design process for Van Beuningenplein, we freed ourselves from these highly influential expectations for various reasons. One reason was to investigate how an 'open' square can offer space for various activities.

Edges as seating objects, fields suitable for all kinds of sports and games, protection only in places where ‘ball danger’ exists.

The desire for an urban 'functional' void that offers space for all sorts of uses is common. In practice, however, such an urban void rarely invites any form of spontaneous activity. Reasons to move are needed.

Another motivation for abandoning expectations was prompted by our experiences during an average participation meeting. This confirmed yet again how right Colomina is: the wishes of future users reflect perfectly what the media serves up: football in the city means a so-called Cruyff Court; a playground consists of standard multi-coloured pieces of equipment taken from a catalogue. Little imagination is apparent, and this inevitably leads to even more of the same. To convince everybody, existing examples are shown where the anticipated result is only partly achieved. In the design process for Van Beuningenplein, we therefore avoided this by only showing images of possible activities, with the request to express a preference. The positive result was that we could abandon a fixed programmatic classification according to age and users, separated by fences. A surplus of activities was possible on this small square. Normally, this would not be possible without fundamental compromises.

A SQUARE TO CHERISH

Another source of inspiration is Marc Wigley, an architect and writer from New Zealand who is affiliated with Columbia University in New York. He views the built environment not only as a physical environment – after all, a piece of asphalt doesn't make a square – but rather as the whole of ideas and images of the physical environment that we have in our minds. The designer plays with these ideas, but in the end it is the users who (re) construct and embrace physical space. I think that it does indeed work like this, and that the users embrace and determine Van Beuningenplein.

Borderless spaces, water as a play element.

Children simply like being there, while adults no doubt think of the increased value of their nearby homes. The reasons for the popularity of the square vary and will probably remain unknown to some extent. But the fact is that users, consciously or not, play a crucial role in the good functioning of the design. That is a lucky result, but also one that is difficult to achieve.

LEGIBLE AND ALLOWABLE

At Van Beuningenplein we ignored the conventional playground arrangement. Katherine Masiulanis describes the typical arrangement of a playground as follows: "Excellent for adults with too little time, overloaded with information in daily life and in search of a space that they can scan and understand easily." We design for children. Although they want it to be unstructured, we certainly did choose for a programmatic arrangement and structure. The power of the design lies in the transitional zones within the programmatic arrangement. Within a clear composition, things can become a lot less clear, even chaotic, at the level of the details. Zones and functions overlap one another and use is determined by the people using them at any given moment. Possible conflicts are factored in and actually contribute to the optimal user qualities.

It's a layout that appeals to children, who attach less importance to a formal arrangement and search for unexpected possibilities. The unconventional layout is intended as an invitation to children, since they are inclined to search for the limits of what is offered to them: what is both possible and acceptable. Are these swings just for toddlers? Is the plane below a bench or a playing surface? Is the stand in the middle a place to play or to sit? Are the edges behind the basketball hoop intended for skating? And if not, can I skate on them? In our experience, children

Soft transitions between leisure activities and games.

'read' an environment as they play – organizationally, ergonomically and in terms of social acceptability. The notion of 'perceived affordance', as described by the American psychologist Donald Norman, aptly describes this interaction between object and (young) user. He writes about the qualities and characteristics of an object or place that is determined by its possible use and the possibility of a person being able to recognize the potential for a more specific use.[46]

The power of the design lies in the transitional zones within the programmatic arrangement. Zones and functions overlap one another and use is determined by the people using them at any given moment.

The square's lack of immediate (functional) legibility might very well negate the usual reserve among adults in determining if something is allowable. Owing to that ambiguity, the unexpected and unforeseen use by children can be more difficult to assess and hence difficult to prevent by adults, who have a more conditioned outlook.

Van Beuningenplein has become a place to learn through experimentation, which is perhaps the biggest possible stimulus to become and stay active. It offers a solution for the limited availability of play spaces in the city by offering space for many forms on activity on a relatively modest site.

Meerpark

Sportpark Middenmeer Voorland was a conventional sports park, with an athletics track, a skate park, basketball courts, tennis courts, football pitches and an ice rink (Jaap Edenbaan) located between the railway, A10 motorway and buildings in the east of Amsterdam. It was constructed in the 1920s. We took advantage of our involvement in the redevelopment – in the period 2006-2010 – to preserve as much green 'play space' within the periphery of the city, to extend this and transform the area into a city park for collective use, which serves many more users than the previous sports park.

FROM SPORTS PARK TO NEW TYPE OF CITY PARK

The original question was to create a new playground in the middle of the sports park. Therein lay for us just part of the solution to the problem of making the sports park attractive again. The idea soon arose to

combine new park functions and potential for unstructured sports and games with the existing sports complex.

The ambition was to realize maximum usable space and to create a new type of city park. This could be achieved by removing physical barriers between the various parts, opening the sports fields to the public, and creating a connecting green park zone at the heart of the new park.

The most fundamental physical change was to remodel Radioweg into a broad park zone. The cycle path has been rerouted to create space for this. The existing sports fields were connected to the green zone by small footbridges. Meerpark is no longer 'just' a sports park. The (spatial) connection between organized sports and 'spontaneous' activities makes this remarkable. There is an unforced connection between various 'zones of activity', and there is interaction between use and users, and the new arrangement is an invitation to new users and different forms of use.

REMOVE THE FENCES!

It can scarcely be called an 'intervention', but it was crucial for the area: abandoning the idea that a sports field is the property of a sports club. Arnold Reijndorp, Professor of Urban Sociology at the UvA, argues that the fact that a space does not function entirely publically does not mean that it cannot be considered part of the public domain. This idea formed an important reason for removing the fences.

The sports fields are accessible for use by many groups all day. In practice, this gives rise to no conflicts, because it is clear who the primary users are and the clubs in the park still operate as strong collectives. The added value lies in coming into contact in a casual manner with the sports

The natural playground invites children (and adults) to embark on a voyage of discovery. Make it challenging!

clubs. This encourages children to engage in activities, and encourages adults to continue taking physical activity. Other advantages are that the number of burglaries in clubhouses has declined and the canteen makes more money thanks to the 'new' users.

A PLAY HILL WITH BOULDER WALL

What was previously a neglected piece of greenery has been transformed into the 'tip' of the new park zone: a play hill. The site contains elements, artefacts and unclear transitional zones, again based on the notion of 'perceived affordances'. The original 'dangerous' drainage ditch beside the play area has become an adventurous water playground. The green zone around the sports field is thus accessed as a new 'nature playground'.

This public play area features both play equipment and an 'artificial' 3.5-metre-tall, bright-orange professional climbing wall (the Boulder Wall). This combination draws on perceived affordances: playful qualities as additions to the existing arsenal of the conventional sports park. The Boulder Wall is the connection with the green play hill and also provides a large seating edge. Interventions ensure a blending of functions and unclear boundaries.

Deliberately attracting the 'boulderers' – a 'weak collective' without an official organizational structure, but with strong social connection – can contribute significantly to the functioning of the park. Reijndorp: "One new function can generate many new functions and uses." The 'boulderers' are pioneers in what had previously been the 'no go' area in the sports park. They are new users and generate interest among other users and passers-by – young and old – to discover what this orange

Parents can keep an eye on their children from the seats around the playground. Nearby, but not too near. The sloping grass surface (without fall protection!) offers something for all age groups. Smaller children climb up halfway, while older ones set off to explore the tunnels. A custom-made design without standard playground equipment.

wall, seemingly difficult to climb, has to offer! The 'unclimbable' becomes 'conquerable' with the help of dedicated climbers, and a new form of physical activity is revealed to the public.

In addition, routes connect the out-of-the-way allotment gardens and the sports park. Together they form the new park. In Meerpark it is the connecting 'zones of transition' that open up and boost the potential and possibilities of the area, though they do first have to be discovered.

Related design tools for this article:
5.2 Big sports facilities on the edge of the city
5.5 Shared sports accommodation
page 126
8.1 Challenging play environments
8.2 Play areas without borders
8.3 Multipurpose areas
page 180
10.3 Parks with plenty of space
page 172

FINALLY

Meerpark is easily accessible on foot or by bike, and focuses primarily on the surrounding neighbourhoods. Besides the traditional city parks, it is one of the few more generously sized green areas within the A10 motorway. Unfortunately, the question regularly crops up here, and in other green sites, whether homes could be built here. I call that 'a pig in a poke'! Constructing new sports fields outside the ring road by way of compensation has only negative consequences: they are only accessible by car; they reduce opportunities for physical activity close to home; and possibilities for strengthening social cohesion disappear. Places like Van Beuningenplein and Meerpark are of great value for the active city. Public sports and play facilities close to home are a prime motivation to get plenty of physical activity often, both organized and spontaneous. They are of inestimable value to the city. It is vital to preserve them!

This public play area features both play equipment and an 'artificial' 3.5-meter tall, bright-orange professional climbing wall (the Boulder Wall). The gravel ensures a soft landing and simultaneously serves as a sandpit for children. A challenging icon for the Meerpark.

Van Beuningenplein

Van Beuningenplein: a challenging playground on top of a car park in the Staatsliedenbuurt neighbourhood

An illustration of design tool 8.1 Challenging play environments, page 170

The design of Van Beuningenplein invites children to test limits. All sorts of play possibilities have been created to stimulate unprogrammed use.

An illustration of design tool 8.2 Play areas without borders, page 170

Van Beuningenplein is not designed like a conventional playground. Zones and functions overlap one another, the result of which is a global programmatic composition.

An illustration of design tool 8.3 Multipurpose places, page 170

Space for various forms of activity, for various types of use in each season (sometimes water retention, sometimes play area), and for various target groups is provided on a relatively small square.

Client: City of Amsterdam
Design: Carve, Dijk&co, Concrete

Learning by testing is perhaps the biggest possible stimulus to start exercising and keep doing it.

The new urban park

15 minutes by bike and you're in the landscape

Amsterdam is known for its 'green wedges': landscapes that penetrate deep into the city. A unique quality that the city has been working on for decades. The importance of these wedges is undisputed. For many long-distance sports such as running, rowing, cycling and skating, they are the perfect setting. But they are also ideal for recreation and relaxation. Fine routes past greenery and canals ensure that you reach the landscape in no time. Located on the edge of the city, where the landscape penetrates the city, are the 'new-style' city parks. We can learn lessons from three such parks: Park Somerlust, Westerpark and Noorderpark:

An illustration of design tool 10.4 The park as route, page 172

Make continuous routes from the city, through the parks, to the landscape. The park itself is part of the route.

An illustration of design tool 10.3 Parks with plenty of space, page 172

Make spacious parks that feel over-dimensioned and boundless. Parks where plenty can happen at the same time, beside one another and after one another: sports, games, activities, encounters, relaxation and simply sun bathing. Create space for housing, cafés and culture too, since they enhance the vibrancy and safety and add variety, even in the cold and wet months.

Noorderpark
Client: City of Amsterdam
Design: West 8

Westerpark
Client: City of Amsterdam
Design: Gustafson Porter, Mecanoo architecten

Park Somerlust
Client: City of Amsterdam
Design: City of Amsterdam

Children run on the big field of the Westerpark, youth is hanging out and tourists throw a frisbee. All at the same time. There is more than enough space. Race cyclists rush along the dike. In the pond kids are playing and hipsters dip their feet in the water.

On the bike from the river IJ towards the north, the landscape becomes more and more tangible. From the ferry onwards, the profile widens and becomes more green, until you reach Waterland: silence! Space!

Park Somerlust at the Amstel riverbank expresses the quality of the landscape of the Amstel wedge.

Outdoor children

Lia Karsten and Naomi Felder
Lia is an urban geographer and an associate professor at the University of Amsterdam. Naomi is an architect and owner of bureau FELD. Together they wrote *De nieuwe generatie stadskinderen*, based on research into the daily lives of children in the city.

Physical activity is an integral aspect of childhood. Playing outdoors is a source of physical activity, but is unfortunately on the decline. Outdoor children have become indoor children. How can we turn the tide?

Children spend more and more time looking at the screens of their televisions, telephones and computers. Although there are reports that sitting in front of a screen is not harmful to children, it does mean that children are not physically active during that time.[47] And no physical activity is detrimental to healthy growth. In addition, the independent freedom of movement among children has declined. More and more children are transported around the city by parents, and the back-seat generation has grown enormously.[48] The upshot is that children are less physically active than needed, and the autonomy of children is reduced. What needs to happen to halt this negative development? We recently studied what children who grow up in the city need.[49] Four ingredients are crucial.

The design of an active city means that priority needs to be placed on slow traffic and 'possibilities for play' in the street and on the sidewalk.

PEACEFUL NEIGHBOURHOODS AND ROUTES

The routes used by parents and children in the city are very specific. These routes are taken a few times a day and are located within a relatively small circle around the home. From home to school, to the shops, club or park, and back home again. This area is directly connected to the sidewalk, the space where children are still allowed to play on their own and move freely. We can design peaceful city neighbourhoods with the space of the sidewalk and the space of the streets in front of the homes. Neighbourhoods where children can gradually discover the streets and

surroundings from their home. For this, a succession of spaces and safe connections is necessary. The challenge lies in not making too much of a distinction between the play areas for children and the routes between them. Routes can function as play areas and vice versa. See it as a 'slow' system. The challenge in cities is to introduce more variety into the infrastructure from street to street. City streets around neighbourhoods for through traffic, neighbourhood streets for local traffic, and low-traffic residential streets. Design based on the type of street and the related traffic speeds results in low-traffic areas that function as slow and safe neighbourhoods where it is safe to play and live. This is vital for children, and it also helps parents by easing the way in which children can play with their friends and make the neighbourhood their own.

IT STARTS WITH THE SIDEWALK

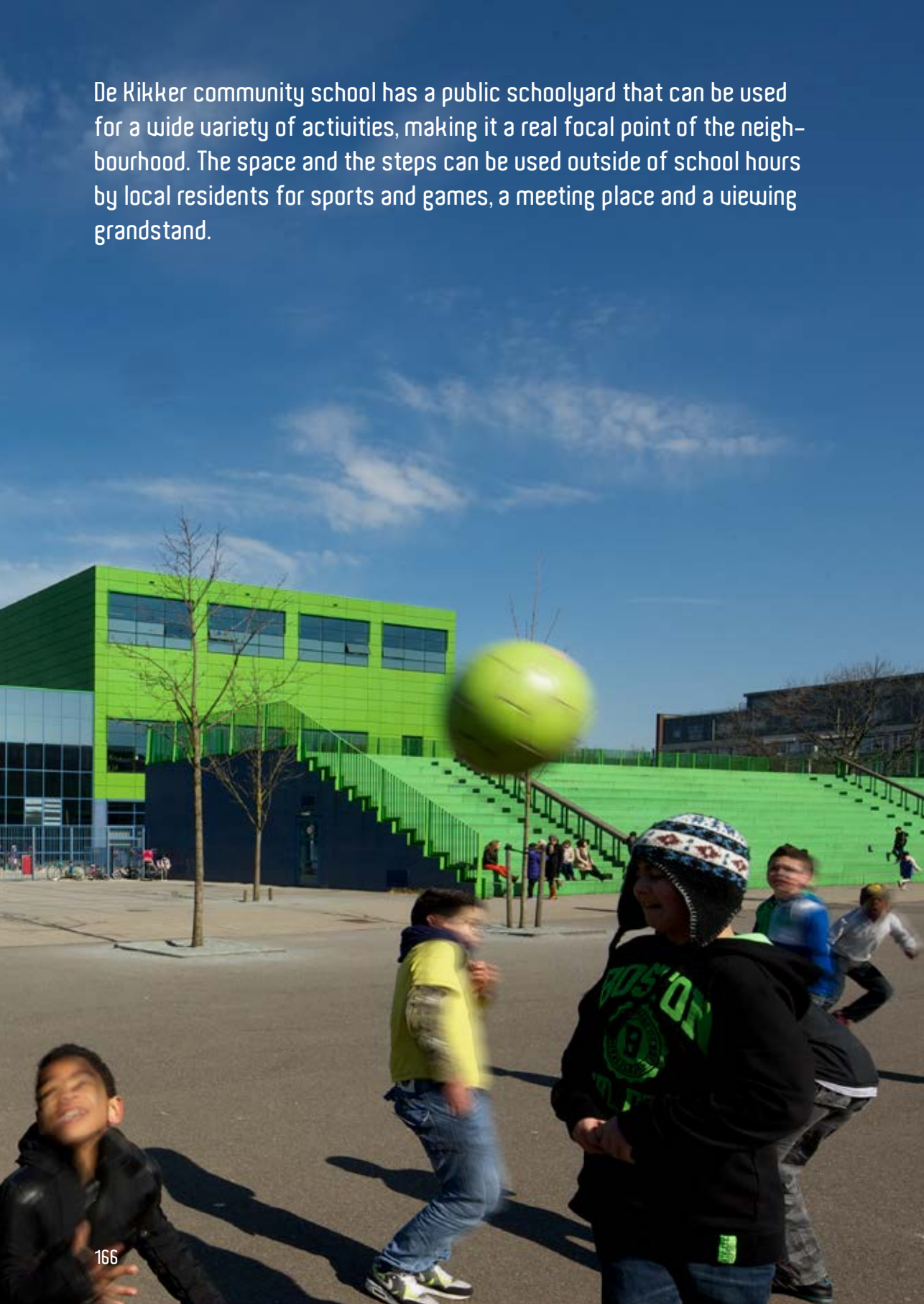
Broad sidewalks stimulate independent playing outdoors. It is especially important for the 'in-between time': when children return from clubs, or briefly before or after dinner, or when the neighbouring children come home, and so on. The sidewalk is the (only) place where parents can easily leave their children. It facilitates a more relaxed upbringing. The design of an active city means that priority needs to be placed on slow traffic and 'possibilities for play' in the street and on the sidewalk.

THE SCHOOL PLAYGROUND AS PUBLIC MEETING POINT

Most children (especially those under ten) are brought to and collected from school by their parents. This of course should be done by bike. After

Wide sidewalks stimulate playing outdoors. The front doors on Laagte Kadijk in the city centre are often left open. Placed in front of them are benches, shared bookcases and flower pots. The vibrant street level makes the sidewalk a safe place to play.

De Kikker community school has a public schoolyard that can be used for a wide variety of activities, making it a real focal point of the neighbourhood. The space and the steps can be used outside of school hours by local residents for sports and games, a meeting place and a viewing grandstand.



school, children like to spend some time on the school playground, and parents are willing to allow that if the playground is inviting. Parents get to know their child's friends. Design a school playground in such a way that it is pleasant for both children and parents to spend time – a win-win situation for everybody!

THE PARK IN THE NEIGHBOURHOOD

Parks are important for the sense of community among families. Parks encourage playing in nature. For children, playing in nature is important not only for motor development but also for health. Since cities want to appeal to families, it is necessary not only to build enough homes and schools, but also to ensure a good distribution of parks.

AND FURTHER AWAY…

Families do of course also want to explore play areas elsewhere in the city. Big, exciting play areas, which are the key attractions in every city that takes children seriously. Trips to such places are important activities for an urban family, and that is why good cycle routes to and from them are important. And that is a matter of some concern. Parents consider most streets and cycle lanes to be too unsafe for their children. Make them child-friendly by separating users according to speed – between cars and bikes, and among bikes.

The design of an active city for children calls for a little extra attention from designers and city makers, but it ensures a city that is more attractive for everybody. That is more than worthwhile!

Related design tools for this article:
9.1 Playing around the corner
9.2 Low-traffic network for play and leisure actiuity
9.3 Open schoolyards
9.4 Eyes on the street
page 171

At Wachterliedplantsoen in Bos en Lommer, the adventure playground is combined with a clubhouse for the community, a children's farm and some sports fields. The pedestrian bridge connects directly to Erasmuspark.

Woeste Westen

A big nature playground in Amsterdam-West

An illustration of design tool 8.1 Challenging play environments, page 170

Woeste Westen is an adventure play landscape, where children can play freely in nature. Hills and bushes to hide in, reeds and ditches to trigger the fantasy.

An illustration of design tool 8.2 Play areas without borders, page 170

The site layout is limited to an arrangement of islands, each with a theme of its own. Children are not restricted in their play activities.

An illustration of design tool 10.1 Large play areas, page 172

At Woeste Westen, on the edge of the city, children can romp around and get dirty, and never tire of discovering things.

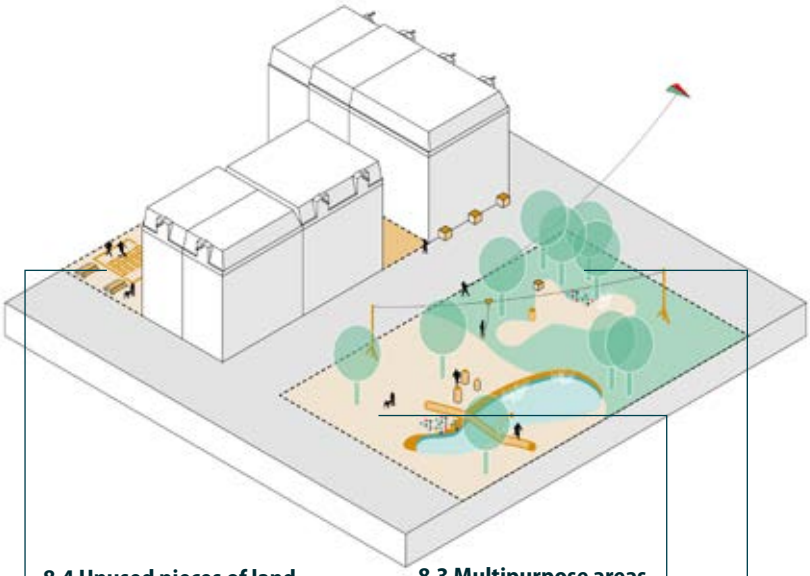
Client: City of Amsterdam
Design: RPS in collaboration with initiator Martin Hup

At Woeste Westen children can catch water animals, play in a flowing brook, wander through reeds and bushes, or simply enjoy nature in peace.

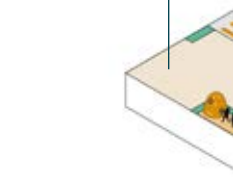
Design tools for play and leisure activity

Ambition 8. Places without borders

Children enjoy challenges to play and be physically active in play areas in the neighbourhood. The use of these areas is not predetermined. They are multipurpose, and children can discover and try out the places.

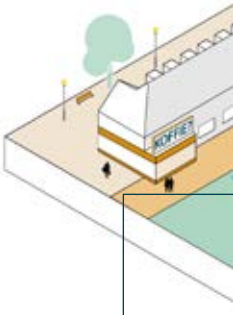


9.7 Wide sidewalks
The streets have wide sidewalks where it is pleasant to play and stroll. They are flat enough and accessible for disabled persons and prams. Wide sidewalks are preferably located on the sunny side.



8.4 Unused pieces of land and temporary use
Vacant sites and developments can be used as temporary play areas, suitable for playing.
See inspirational project Blijburg, page 146

8.3 Multipurpose areas
Play areas are multipurpose, and can accommodate various uses in each season (sometimes water retention, sometimes play area) and various uses for the time of day (sometimes for children, sometimes for adults).
See inspirational project Van Beuningenplein, page 158



8.1 Challenging play environments
Play areas are multipurpose, and can accommodate various uses in each season (sometimes water retention, sometimes play area) and various uses for the time of day (sometimes for children, sometimes for adults).
See inspirational projects Van Beuningenplein, page 158 and Woeste Westen, page 168

8.2 Play areas without borders
Play areas are not strictly designed programmatically according to age group and user, and are not furnished with standard components. Uses overlap one another and not everything is predetermined.
See inspirational projects Van Beuningenplein, page 158 and Woeste Westen, page 168

9.3 Open schoolyards
Schoolyards are also accessible outside school hours and can be used for sports and games. They form part of the public domain, and are enclosed by attractive, transparent fences.

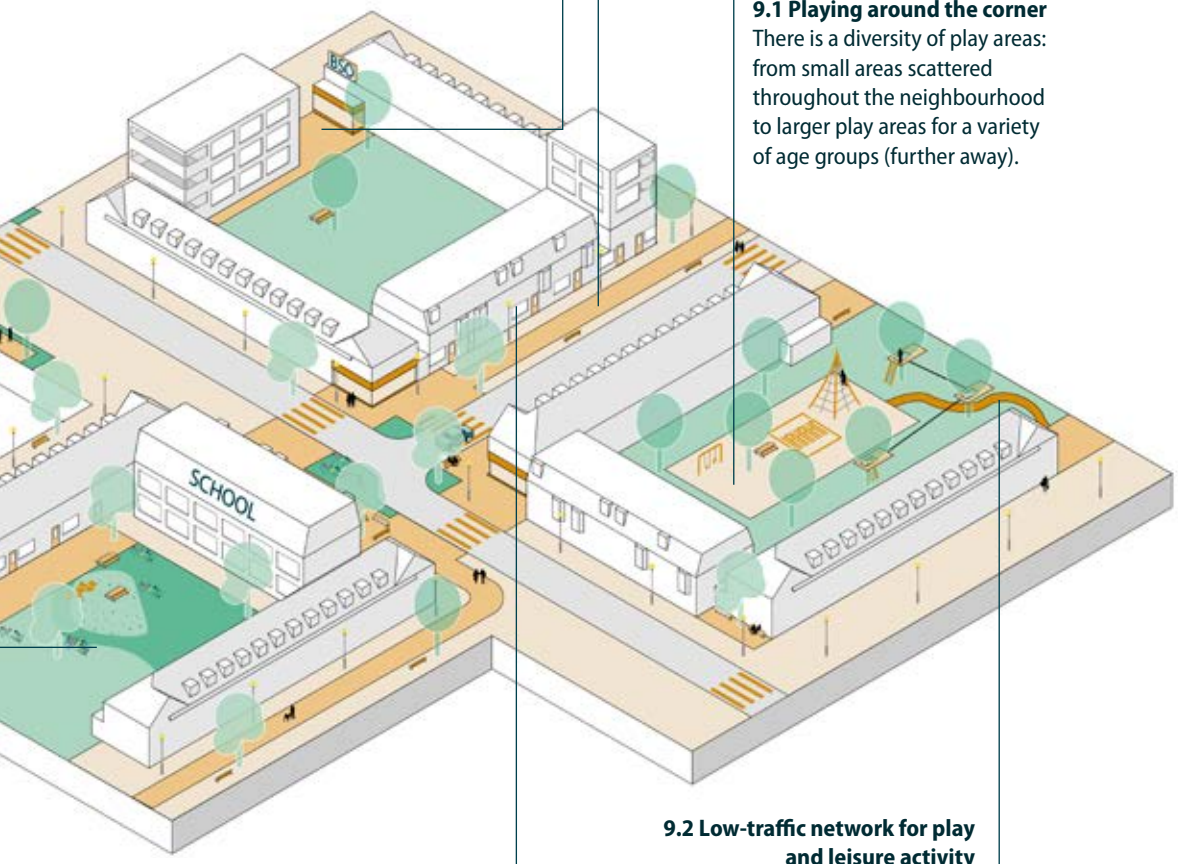
Ambition 9. The low-traffic neighbourhood for play and leisure activity

The active city has low-traffic, compact city neighbourhoods where opportunities for play and leisure activities for young and old are just around the corner.

9.5 Child supervision by seniors
Childcare facilities are preferably linked to housing for seniors: watching children at play stimulates seniors and ensures supervision.

9.6 Varied streetscape
The streetscape is varied by the orientation of homes, use of materials, height, width, building line and colours of buildings.

9.1 Playing around the corner
There is a diversity of play areas: from small areas scattered throughout the neighbourhood to larger play areas for a variety of age groups (further away).



9.2 Low-traffic network for play and leisure activity
Play areas and schoolyards are connected to a network of comfortable, smooth, low-traffic streets and squares where the speed and safety of children and seniors is the point of departure. Daily amenities, public transport and homes for seniors are positioned along this network. (See also 2.3)

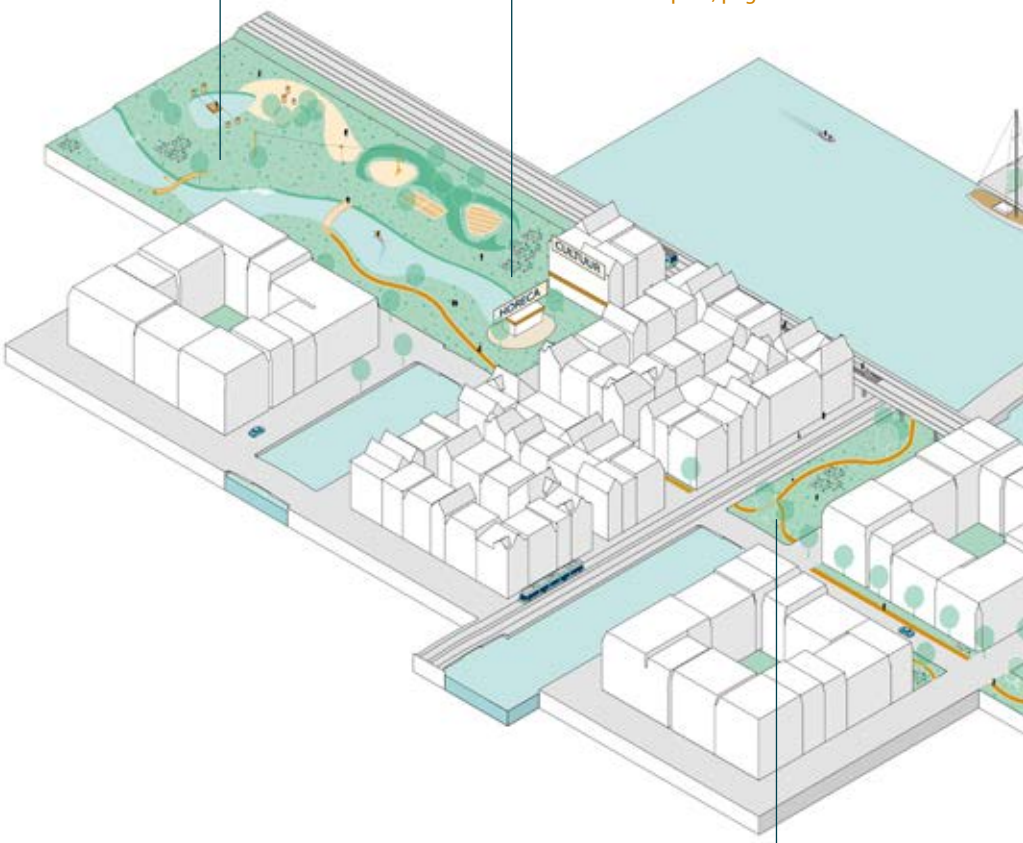
9.4 Eyes on the street
Play areas and schoolyards are supervised from the neighbourhood through 'eyes on the street' (from homes, seating areas for seniors).

Ambition 10. Attractive greenery

The active city has attractive green routes, places and parks. They are connected to one another. Attractive routes through parks and along bodies of water connect the neighbourhoods with the landscape.

10.1 Large play areas
The city has larger (nature) playgrounds, distributed around the city. Here children can play, romp, get dirty and 'discover'.
See inspirational project Woeste Westen, page 168

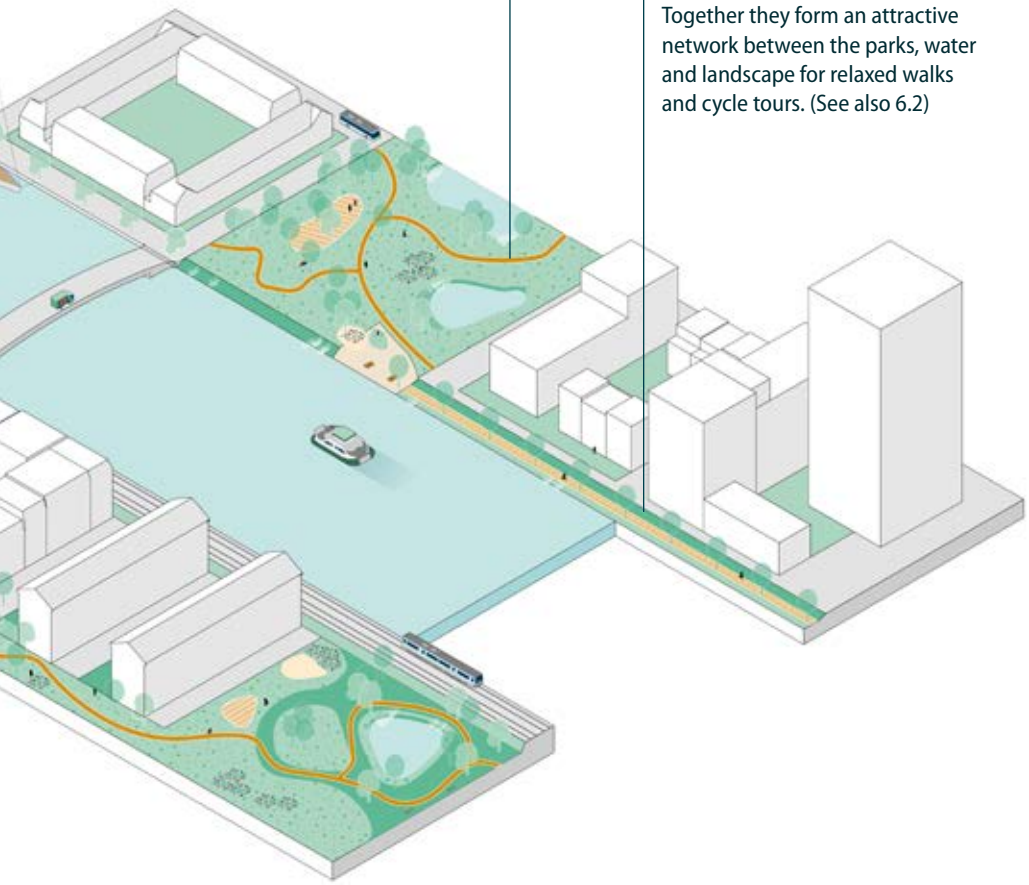
10.3 Parks with plenty of space
Parks are generously sized so that sports, culture, living, events and leisure activities can all take place at the same time without interfering with one another. Not all uses have been predetermined. (See also 6.3)
See inspirational projects Meerpark, page 118, Blijburg, page 146 and The new urban park, page 160



10.5 Climate adaptation and heat stress
The greenery and the parks contribute to climate adaptation (water retention) and reduce heat stress. Trees and greenery provide shelter and shade.
See inspirational project De Mirandabad, page 116

10.4 The park as a route
'Green wedges' are connected to the city by green routes. These routes extend through parks, or the park itself is a route (Noorderpark, Park Somerlust).
See inspirational project
The new urban park, page 160

10.2 Green routes for leisure activity
The parks and water are connected by attractive, green routes. Together they form an attractive network between the parks, water and landscape for relaxed walks and cycle tours. (See also 6.2)



Index of ambitions & design tools

Cycling & walking

SMALL

Place/street/block

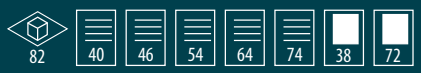
AMBITIONS

DESIGN TOOLS

1. Connected urban cores

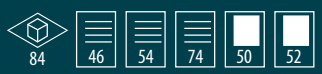
1.4 Public transport interchanges
1.5 Good access routes to public transport
1.6 Bike parking stations linked to public transport

2. Cycling and walking in a low-traffic neighbourhood



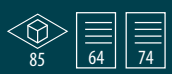
2.6 Bike parking in public space
2.7 Bike parking racks in buildings

3. Shared streets



3.1 Shared streets
3.2 Separate speeds
3.3 Adapted speeds

4. Safe and smooth public space for everybody



4.1 Street fronts
4.2 Smooth streets and spaces
4.3 Sufficient rest areas

KEY

MEDIUM
Neighbourhood/district

DESIGN TOOLS

1.1 Dense, mixed-use neighbourhoods

2.1 Human scale
2.2 Intensive combination of functions
2.3 Low-traffic network
2.4 Encircled by busy routes
2.5 Close-knit structure
2.8 Clustering car park spaces
2.9 Car-free schools
2.10 Pick-up places
2.11 Walking routes in employment areas

LARGE
City/region

DESIGN TOOLS

1.2 Amenities in the city
1.3 Rapid public transport
1.7 Direct cycle routes
1.8 Regional bike network

Sports

SMALL

Place/street/block

AMBITIONS

DESIGN TOOLS

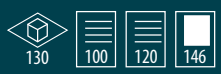
5. Open sports

- 5.3 Smaller sports areas
- 5.4 Visible sports facilities
- 5.6 Shared sports facilities
- 5.7 New forms of sport

6. The city as gym

- 6.1 Unprogrammed public space
- 6.5 Incentives for sports

7. Water is active space



- 7.2 Accessible swimming water
- 7.3 Accessible water sports

KEY

- Ambition
- Article
- Inspirational project
- 14 Page number

MEDIUM
Neighbourhood/district

DESIGN TOOLS

5.1 Sports facilities in the neighbourhood
5.5 Shared sports accommodation

6.3 Sports in parks
6.4 Sports areas in the neighbourhood

LARGE
City/region

DESIGN TOOLS

5.2 Big sports facilities on the edge of the city

6.2 Green routes for sport
6.6 Facilities

7.1 Swimming water
7.4 Close-knit water network

Play & leisure activity

SMALL

Place/street/block

AMBITIONS

DESIGN TOOLS

8. Places without borders

- 8.1 Challenging play environments
- 8.2 Play areas without borders
- 8.3 Multipurpose areas
- 8.4 Unused pieces of land and temporary use

9. The low-traffic neighbourhood for play and leisure activity

- 9.3 Open schoolyards
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- 9.7 Wide sidewalks

10. Attractive greenery

- 10.5 Climate adaptation and heat stress

KEY

Ambition

Article

Inspirational project

14 Page number

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Neighbourhood/district

DESIGN TOOLS

9.1 Playing around the corner
9.2 Low-traffic network for play and leisure activity
9.5 Child supervision by seniors

10.3 Parks with plenty of space

LARGE
City/region

DESIGN TOOLS

10.1 Large play areas
10.2 Green routes for leisure activity
10.4 The park as a route

Working in the active city

The active city cannot be created simply by deploying the tools from this book. Blindly following standards and guidelines does not make for successful design. More is required: working on the active city demands an attitude open to collaboration. And above all, the active city calls for another way of looking at the city.

I. EMBRACE THE UNPLANNED

Often the most challenging and inviting, the unplanned leads to attractive spaces of movement: the 'patch of land' where children can play, the tree house made of discarded material, the possibilities offered by water, the desire line. Give residents space to take the initiative and let it happen. Make use of the space available temporarily.

II. INVOLVE USERS, RESIDENTS AND TECHNICAL MANAGERS

Let users, residents and technical managers join the discussion right from the start of the design process, and translate their wishes and conditions into the design brief. That will enhance user value and create synergy between use and user groups. Residents adopt and use a space more readily if they are consulted in its design and management. Mental ownership, and hence safety, is strengthened. In addition, the active city benefits public space if properly managed in a long-term manner.

III. THINK NOT IN FINAL IMAGES BUT IN ACTIVITIES

The active city is about movement, not about objects such as a separate cycle lane, a fenced-in Cruijff Court, or a football pitch with standard dimensions. Ensure that as many people as possible can move, everywhere and in all sorts of ways. In a bustling city, this means being creative with the limited space available and ensuring that residents can undertake the desired activities. Smaller pitches are also suitable for sports, the sidewalk can also become a play area, and a cyclist doesn't always need a cycle lane of his own. In a bustling city, scarce space can accommodate lots of activities side by side, together, or one after another.

IV. LOOK CLOSELY

Designing the active city demands looking closely and asking: who uses a square, how do people move (or not), are there conflicts? Observe a place carefully at different times of the day, during various types of weather, go and talk to users and come up with solutions specific to the context. A motorist thinks in terms of time efficiency, and his behaviour can be predicted in models. A pedestrian, cyclist, sports enthusiast or a child at play make choices more intuitively: which route will I take today, where will I play now, how will I run to the park? Understand the use and the user, and let this understanding play a central role in the design.

V. DRAW INSPIRATION

The Active City is a book of inspiration with examples from Amsterdam. Designing the city is complex: there is a lot of policy and there are all sorts of regulations governing the design of public space. The design tools in this book are therefore not an additional set of regulations and guidelines, but a source of inspiration. Everybody can use this book to engage with the subject of the active city. The active city comes closer step by step by smartly solving complex spatial puzzles within the available space, combining functions, and delivering custom solutions.

From paternalism to careful observation

Epilogue

Jos Gadet
Jos is an urban geographer and chief planner with the city of Amsterdam. He has written numerous publications about urban developments and is the author and co-author of various books about Amsterdam.

The Active City **doesn't come a day too soon. This timely publication underlines the principles of designing and redesigning urban space in a modern city like Amsterdam: enable people to walk and cycle more, entice them to play more sport, and offer them more opportunities to partake in leisure activities. Why is that so important?**

Because city dwellers are fundamentally very active, and want to become even more active! For example, they walk and cycle more than their country counterparts. That has everything to do with the proximity and density of amenities. City dwellers also walk more readily than people elsewhere. That is a reflection of urban life, which has traditionally focused more on brief exchanges and interaction than is the case in rural areas.

The development of the knowledge economy in the city makes proximity, density of amenities and interaction even more important. At the same time, the permanent connectivity brought about by the digital revolution has raised our need for face-to-face contact, and that increasingly occurs in public space. Designing the city means creating space for such interaction.

The themes of *The Active City* go to the very heart of the modern metropolis and are therefore relevant to Amsterdam. Possibilities to cycle and walk are vital in a varied and compact city whose economy benefits from the proximity, density and variety of amenities. Today's hedonist city dwellers demand opportunities to play sports in the urban environment. Indeed, their availability has become a crucial factor in choosing for Amsterdam. And the wish of urban families to remain living in the city or to move to the city can only be satisfied if family members can enjoy leisure activities close to home, play there safely, and met other people.

The Active City provides examples worth following, presents a number of in-depth essays, and takes them as the basis for a number of design principles. It therefore lays the foundations for a spatial policy that contrasts with traditional urban design schemes. Both Plan Zuid by Berlage and the AUP by Van Eesteren embodied a paternalistic attitude towards how people should behave. Those plans were based on what were considered generic standards for physical activity.

No such thinking influences *The Active City*. Instead, it observes the socio-economic dynamics of the city and it observes the specific potential of individual locations in Amsterdam. This generates unique design opportunities.

Jane Jacobs's ideas about the city are all about observing and discussing on the spot. That same line of thought runs implicitly through this book, reflecting her method of analysing the city. Watch how people behave, understand why they do so, and design the city on that basis. This also implies that this book proposes a method rather than prescribes design requirements. The city is never finished, and neither is this book, because socio-economic dynamism and new examples must be followed and analysed all the time.

Our city is constantly changing, and so too are the people who live and work there, both literally and figuratively. This book offers inspiration and tools to view the city from another perspective and to make it possible to create an active city.


P
M. i. v.
UITSLUITEND
EN UIT STAPPEN


Bootzeil

Literature

The active city

1. City of Amsterdam (2016). Amsterdam Active Design Guidelines. The moving city.
2. Nederlandse Norm Gezond Bewegen (NNGB). www.allesoversport.nl (accessed 14 August 2017)
3. Leenen, L. and Woudenberg, F. (2017). Amsterdam beweegt gezond. Plan Amsterdam, 2017 (01), 4-11.
4. Nijland, H. (2017). Fietsen leidt tot langer en gezond leven. www.pbl.nl/publicaties/fietsen-leidt-tot-langer-en-gezond-leven (accessed 14 August 2017)
5. Leenen, L. and Woudenberg, F. (2017). Amsterdam beweegt gezond. Plan Amsterdam, 2017 (01), 4-11.
6. National Institute for Public Health and the Environment (2017). Index SES-verschillen in (gezonde) levensverwachting. www.rivm.nl/Documenten_en_publicaties/Wetenschappelijk/Rapporten/2014/november/Index_SES_verschillen_in_gezonde_levensverwachting (accessed 14 August 2017)
7. Ipsos Top Cities Index (2017). www.ipsos.com/ipsos-mori/en-uk/ipsos-top-cities-2017 (accessed 14 August 2017)
8. Boterman, W. (2015). Het stadsgezin als kanariepietje. www.stadsleven.nu/2015/01/20/het-stadsgezin-als-kanariepietje-column-willem-boterman/ (accessed 14 August 2017)
9. City of Amsterdam (2017). Meerjarenplan Fiets 2017-2022.
10. Milieudefensie (2017). Duurzaam door de stad. Van wie is de stad?

Cycling & walking

11. Oldenziel, R., Emanuel, M., Bruhèze, A. de la, Veraart, F. (2016). Cycling Cities: The European Experience.
12. Bosscher, D. (2011). Kleine stad Amsterdam. https://www.historischnieuwsblad.nl/nl/artikel/27803/kleine-stad-amsterdam.html (accessed 20 July 2017):
13. From: Provo's Fietsenplan (1965). Source: Jordan, P. (2013). City of Bikes. Amsterdam: Podium.
14. Oldenziel, R., Emanuel, M., Bruhèze, A. de la, Veraart, F. (2016). Cycling Cities: The European Experience.

Cycling & walking – Amsterdam world bike capital

15. City of Amsterdam (2017). Meerjarenplan fiets 2017-2022.
16. KiM Netherlands Institute for Transport Policy Analysis (2016). Fietsen en lopen: de smeerolie van onze mobiliteit.
17. Hertog, F. den, Bronkhorst, M., Moerman, M., Wilgenburg, R. van (2006). De Gezonde Wijk. EMGO Institute for Health and Care Research.
18. City of Amsterdam (2016). Amsterdam Active Design Guidelines. The moving city.
19. Fietsberaad (2017). Fiets verovert terrein op auto ook buiten de grote steden. www.fietsberaad.nl/?section=Nieuws&lang=nl&mode=newsArticle&newsYear=2017&repository=Fiets+verovert+terrein+op+auto+ook+buiten+de+grote+steden (accessed 20 July 2017)
20. Oldenziel, R., Emanuel, M., Bruhèze, A. de la, Veraart, F. (2016). Cycling Cities: The European Experience.

Cycling & walking – Everything nearby

21. Pols, L., Amsterdam, H. van, Harbers, A., Kronberger, P., Buitelaar, E. (2009). Menging van wonen en werken. Netherlands Environmental Assessment Agency.

Cycling & walking – Eye contact, body langauge and a nod

22. Schepers, P. et al (2016). The Dutch road to a high level of cycling safety. Safety Science, 92 (pp.264-273).
23. Schelling, T. C. (2006). Micromotives and macrobehavior. WW Norton & Company (pp.30)
24. Te Brömmelstroet, M., Nikolaeva, A., Glaser, M., Nicolaisen, M.S., Chan, C. (2017). Travelling together alone and alone together: mobility and potential exposure to diversity. Applied Mobilities, 2(1), 1-15.

Cycling & walking – From door to door
25. Fietsersbond (2017). Waarom er steeds meer fietsers zijn in de grote steden. www.fietsennaarhetwerk.nl (accessed 9 August 2017):

Cycling & walking – Walking through Amsterdam residential districts and employment areas
26. City of Amsterdam (2016). Beweegatlas Amsterdam.
27. City of Amsterdam (2016). Beweegatlas Amsterdam.
28. City of Amsterdam (2016). Beweegatlas Amsterdam.

Cycling & walking – A neighbourhood for life
29. City of Amsterdam (2011). Structuurvisie Amsterdam 2040. Economisch sterk en duurzaam.

Sports
30. Volksgezondheid en zorg, RIVM (2016). https://www.volksgezondheidenzorg.info/bestanden/documenten/meest-beoefende-sporten-2015-12-jr-en-ouder (accessed 20 July 2017)
31. Dool, R. van den (2016). Anders georganiseerde sport. Sport buiten vereniging om. Utrecht: Mulier Instituut.
32. Centraal Bureau voor de Statistiek, RIVM. (2015). Gezondheidenquete/Leefstijlmonitor.
33. City of Amsterdam (2016). Beweegatlas Amsterdam.
34. Kompier, V., Casas Valle, D. (2012). Sport in the city. Lay-out, 22.
35. Dool, R. van den (2016). Anders georganiseerde sport. Sport buiten vereniging om. Utrecht: Mulier Instituut
36. Members' report by the National Olympic Committee/Netherlands Sports Federation (2015). https://www.nocnsf.nl/ledentallen (accessed 20 July 2017)

Play & leisure activity
37. City of Amsterdam (2016). Beweegatlas Amsterdam.
38. City of Amsterdam (2016). Amsterdam Active Design Guidelines. The moving city.
39. Amsterdam municipal health department (2013). Amsterdamse Gezondheidsmonitor 2012.
40. Karsten, L., Felder, N. (2016) De nieuwe generatie stadskinderen. Ruimte maken voor opgroeien. Rotterdam: Nai010 Uitgevers.
41. Maas, J. (2009) Vitamine G: Natuurlijke omgevingen - Gezonde omgevingen. Netherlands Institute for Health Services Research, Utrecht.
42. Karsten, L., Felder, N. (2016) De nieuwe generatie stadskinderen. Ruimte maken voor opgroeien. Rotterdam: Nai010 Uitgevers.
43. City of Amsterdam (2016). Beweegatlas Amsterdam.
44. Netherlands Statistics (2015). Trendrapport toerisme, recreatie en vrije tijd 2015.

Play & leisure activity – Children in the city
45. The Cultural and Creative Cities Monitor (2017). Luxembourg: Publications Office of the European Union. https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor/media/c3monitor2017.pdf (accessed 1 August 2017)
46. Norman, D. A. (1999). Affordance, Conventions and Design. Interactions 6(3) (pp.38-43). Den Haag: ACM Press.

Play & leisure activity – Outdoor children
47. Valkenburg, P. (2013). Beeldschermkinderen. Meppel: Boom.
48. Karsten, L. (2005) It all used to be better? Different generations on continuity and change in urban children's daily use of space. Children's Geographies, 3(3), 275-290.
49. Karsten, L., Felder, N. (2016) De nieuwe generatie stadskinderen. Ruimte maken voor opgroeien. Rotterdam: Nai010 Uitgevers.

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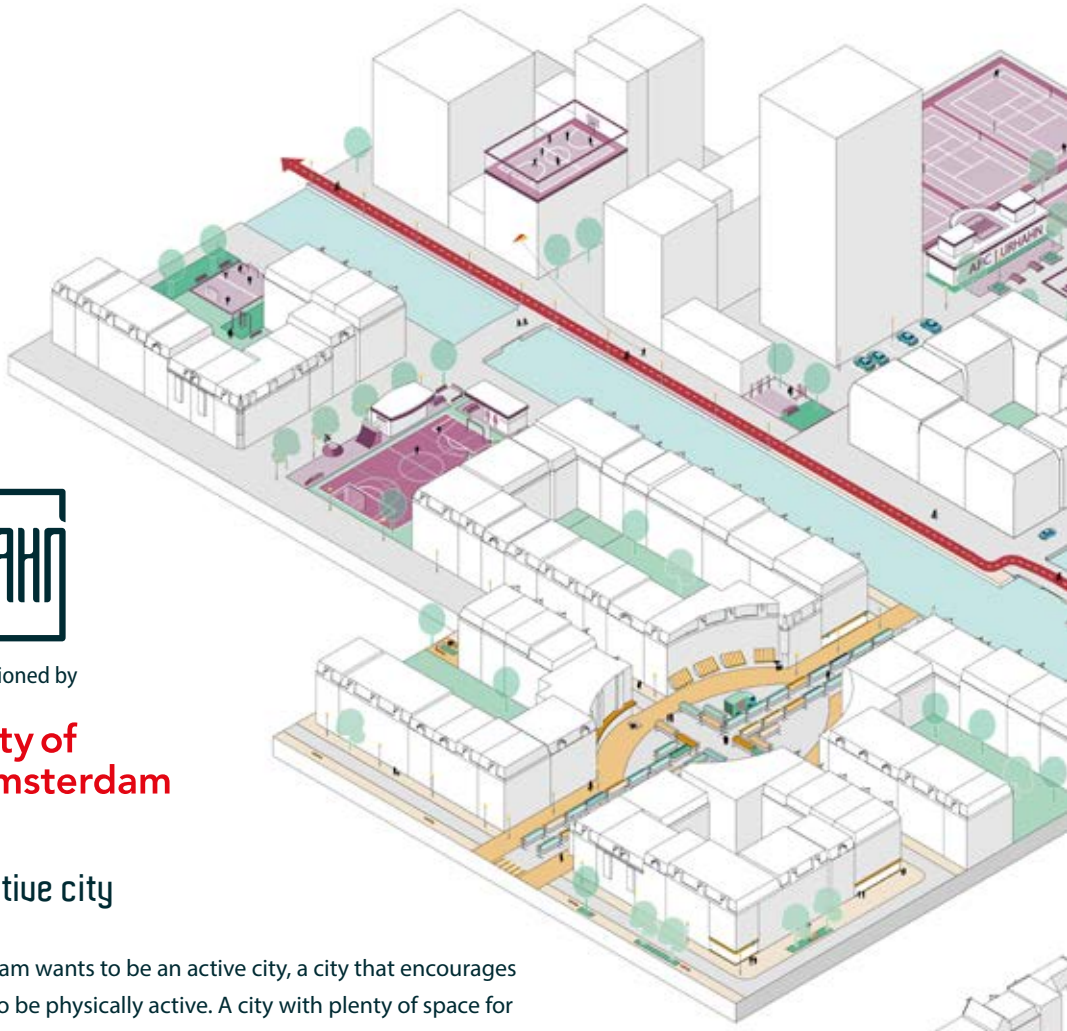

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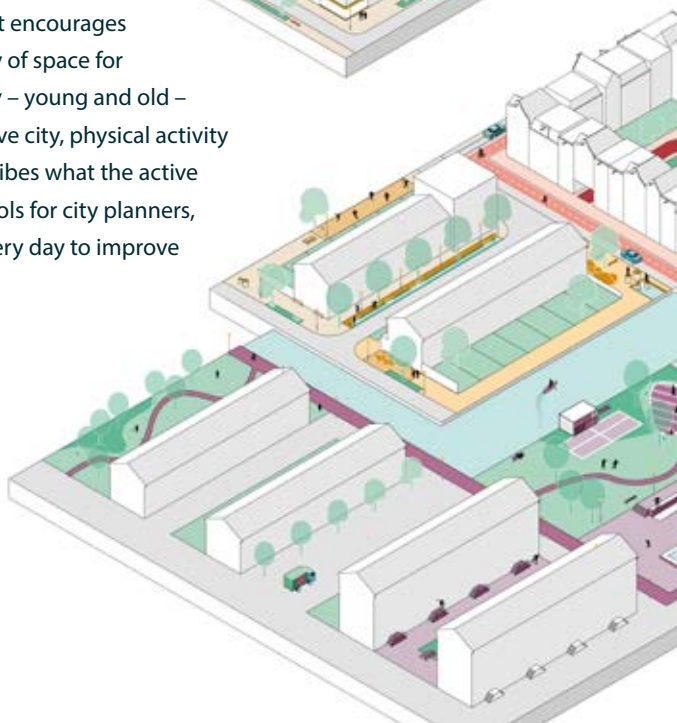
City of Amsterdam

The active city

Amsterdam wants to be an active city, a city that encourages people to be physically active. A city with plenty of space for cyclists and pedestrians, a city where everybody – young and old – can enjoy sports, play and relaxation. In the active city, physical activity is a natural part of everyday life. This book describes what the active city looks like. It offers inspiration and design tools for city planners, designers and other professionals who work every day to improve the city.



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