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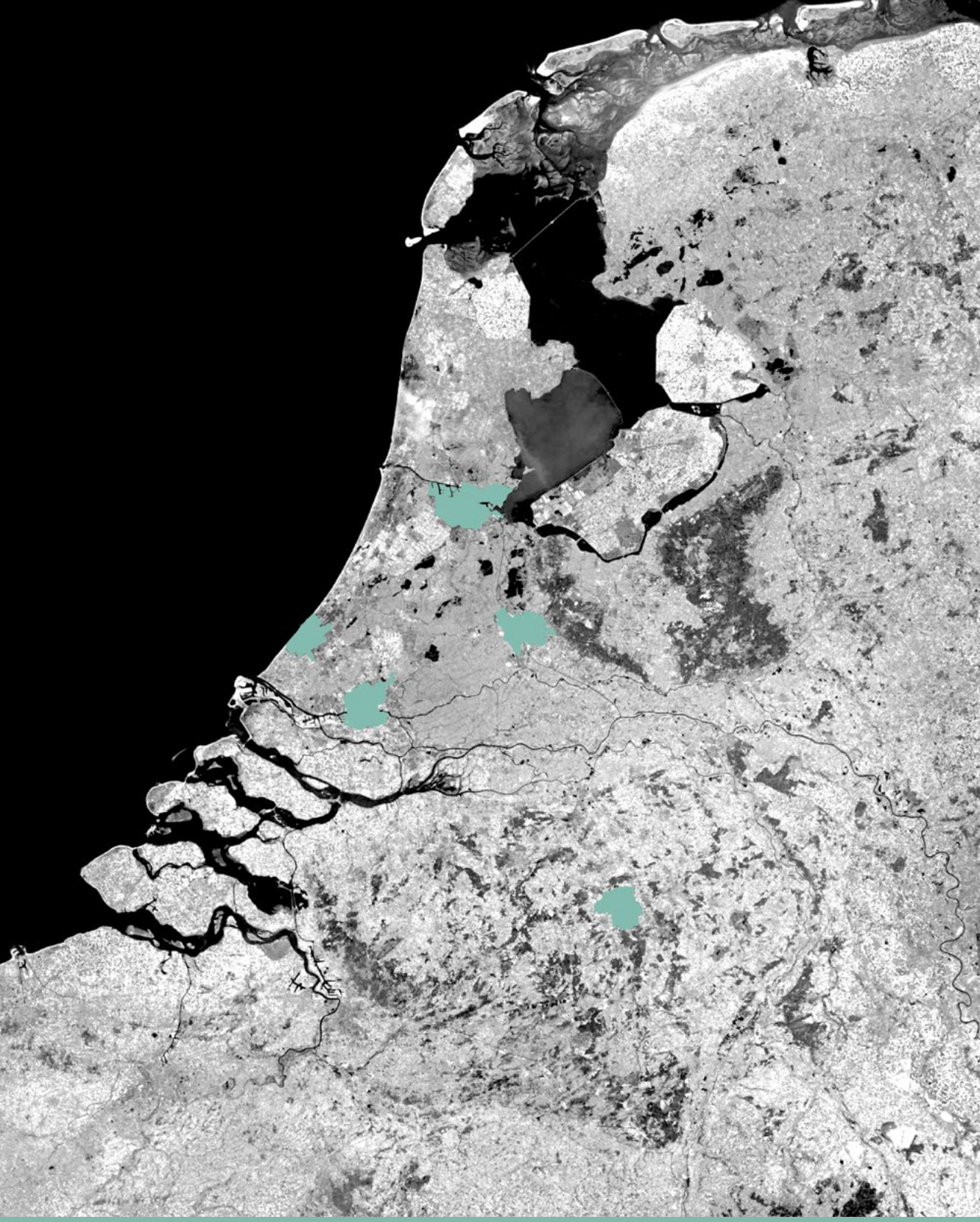

CITY OF THE FUTURE
STAD VAN DE TOEKOMST

MSc II Design Studio Mobility & Public Space in the City of the Future

city of the FUTURE
stad van de TOEKOMST

MSc II Design Studio Mobility & Public Space in the City of the Future
April–July 2018

city of the future
stad van de toekomst

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MSc II DESIGN STUDIO
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April–July 2018

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DE STAD VAN DE TOEKOMST

city of the future
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CONTENT

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PREFACE

preface

DESIGN RESEARCH ON THE CITY OF THE FUTURE

DESIGN RESEARCH ON THE CITY OF THE FUTURE

How can we design and develop a transformation area in an integral way into an attractive and future-proof urban environment? This is the the central question of the research project Stad van de Toekomst (City of the Future).

This question is motivated by urgent social as well as local tasks in the urban areas, varying from housing demand, social inclusiveness, new economy, climate adaptation, and the like, taking into account the transitions in energy, mobility, circularity and digitization. Based on future scenarios, the aim and intended results of this study are to obtain insights into the central and local questions in order to inform integral area development from systems and networks. In addition, also transitions to other spatial conditions are addressed. Such insights can have significance for the developments of a number of locations, and contribute to the policy of local and central governments.

The study was initiated from the Ministry of Infrastructure and Water Management (Min.IenW) in close coordination with the BNA (The Royal Institute of Dutch Architects), Delft University of Technology/DIMI (Delft Deltas, Infrastructures & Mobility Initiatives) and the Delta Metropolis Association. Other project partners involved are the Ministry of Internal Affairs (Min.BiZa) and the municipalities of Amsterdam, Eindhoven, The Hague, Rotterdam and Utrecht.

The five biggest cities of the Netherlands have to contend with a growing number of inhabitants. They all have to deal with compaction and expansion. Each of these five cities *Stad van de Toekomst* appointed a 1 × 1 km transformation area to be analyzed, researched and designed by two interdisciplinary teams of architects, urbanists, city planners, visionaries, engineers and sociologists – for the five cities there are in total ten multidisciplinary teams of practitioners fully involved with the project. This size of the 1 km ‘window’ is considered necessary because many different functions and spatial issues come together and are visible at once. These windows have in common the challenge of dealing with the existing city and, at the same time, with an urban densification assignment. They serve as test locations for new insights that

can also be used in other places where further urbanization takes place.

In Amsterdam it is about a port and business area which is already in the process of being redeveloped at this very moment. In Eindhoven this is a district defined by offices and broad roads adjacent to the main railway station. The Rotterdam site is a car-oriented office and megastore/ shopping mall area. Utrecht is about a city periphery with fragmented mono-functional areas and the site in The Hague is a fragmented area with three stations and trespassed by various railway tracks, large city roads and a motorway.

In this very realistic design brief, *Stad van de Toekomst* brings together designers, stakeholders, municipalities and academia in order to find answers on the central question for the near future where various essential transitions will most probably take place. The design teams will do this in a speculative manner, from current as well as known developments and techniques, and on the basis of explicit assumptions. In different plenary meetings all stakeholders and experts are invited to present and criticize the findings of the design teams.

DESIGN STUDY STAD VAN DE TOEKOMST

Starting point of the design study is the large system transitions that are necessary for the fundamental social tasks that we face. These system transitions concern energy supply, mobility systems, circularity of raw materials and digitalization based on ICT. De *Stad van de Toekomst* depends on the extent to which these transitions can be given a place as part of a new daily living environment. The transformation of the city from the current situation to a new situation of such complex and interlocking systems is far-reaching and yet unknown.

In addition, the system transitions have a major impact on societal tasks such as progressive urbanization, regional and urban accessibility and climate adaptation, which for instance must ensure that we can better control extreme rainfall or long-term drought.

Urbanization is the main theme of the design study. Amsterdam bursts at the seams and Eindhoven is looking for urbanity. The Hague already knows where the densification should take place and Utrecht is still looking for the right locations for densification.

The design study is not looking for classic area development solutions, but for new ways of thinking about the city, which should be based on how the different transitions can work to the advantage of the area.

MSc II DESIGN STUDIO ARCHITECTURE & URBAN DESIGN

The MSc II design studio Architecture & Urban Design at the Faculty of Architecture & the Built Environment, Delft University of Technology, is tightly connected to the *Stad van de Toekomst* research and design project. In this ten weeks master design course, students in architecture, urbanism and landscape architecture work together in the examination of the urban space as architectural space and the architectural space as urban space. In this experimental design project, based on the same assignment given by *Stad van de Toekomst*, students and staff are interested on one hand to the urban intervention in the built environment and its effect on architecture, and at the other hand to the architectural treatment of the city and its effect on urbanism. The close interrelation between urbanism and architecture is the main assumption of this course.

The framework of the *Stad van de Toekomst* research design study is directly projected, compressed and applied to this ten weeks master course. This intensive study program kicked off with a two day workshop forming scenarios for the five cities. A study trip to Boston, MA, provided the students with a background and feeling of large metropolitan city developments and transformations. In addition, some very interesting interactions with colleagues at MIT and Harvard universities and a fantastic presentation at the City Hall on the urban challenges of Boston, contributed to enrich the knowledge about urban strategies and operations in relation to the future of the city.

Next to it, all students had the opportunity to interact with one or more multidisciplinary teams of practitioners working on the *Stad van de Toekomst* project. This gave the students interesting insights on how practice is dealing with the same real life issues they were facing while analyzing and designing. Furthermore, the students visited the 'locale ateliers', workshop meetings where the design teams were given the chance to directly ask questions and present issues to the different parties and experts per city – a unique opportunity for both the design teams and the students to be this close on experts of all levels while being in the middle of a design process. Last but not least, the students attended the plenary sessions where all different stakeholders and the students could discuss the process of dealing with the challenges of the *Stad van de Toekomst*.

This book shows the results of the studio work done by 29 students from eleven different nationalities.

—Roberto Cavallo & Joran Kuijper, July 2018

encounter with practice

BNA STAD VAN DE TOEKOMST

mobility masterclass 6 April 2018
photo: Roy Borghouts, BNA

first plenary session, 25 April 2018

climate adaptation masteclass, 23 March 2018
photo: Roy Borghouts, BNA


1980
1990
2000

site visit of Amsterdam by the design teams

Virpy Heybroek's circularity masterclass, 8 June 2018
photo: Roy Borghouts, BNA

energy transition masterclass by Andy van den Dobbelsteen, 9 March 2018
photo: Roy Borghouts, BNA

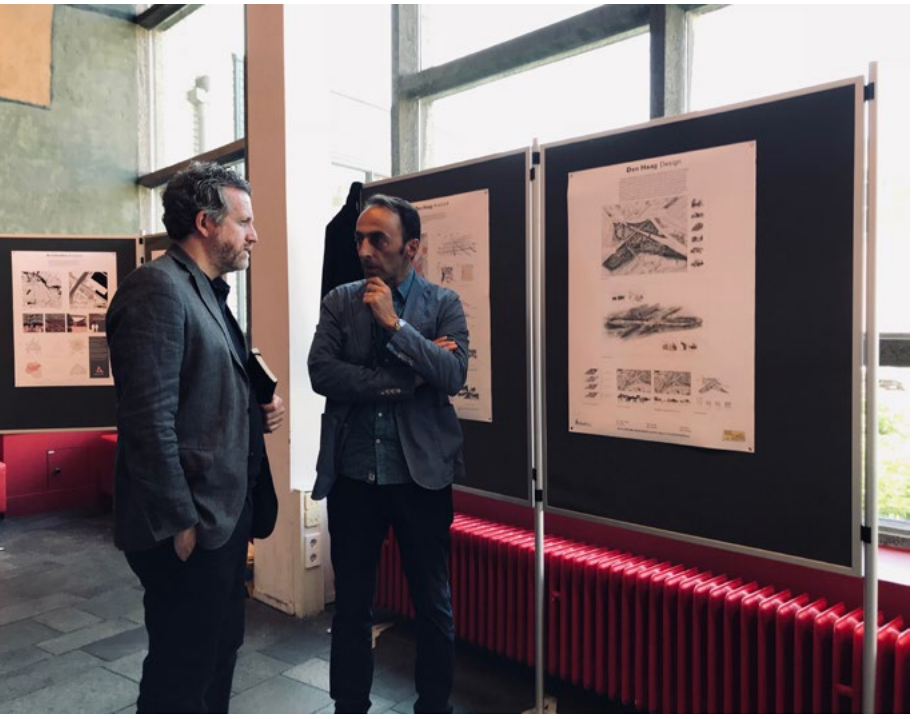
Den Haag locale atelier, 28 May 2018

Jutta Hinterleitner (BNA) and Hans de Boer (DIMI) at the Den Haag locale atelier

Eindhoven locale atelier, 1 June 2018

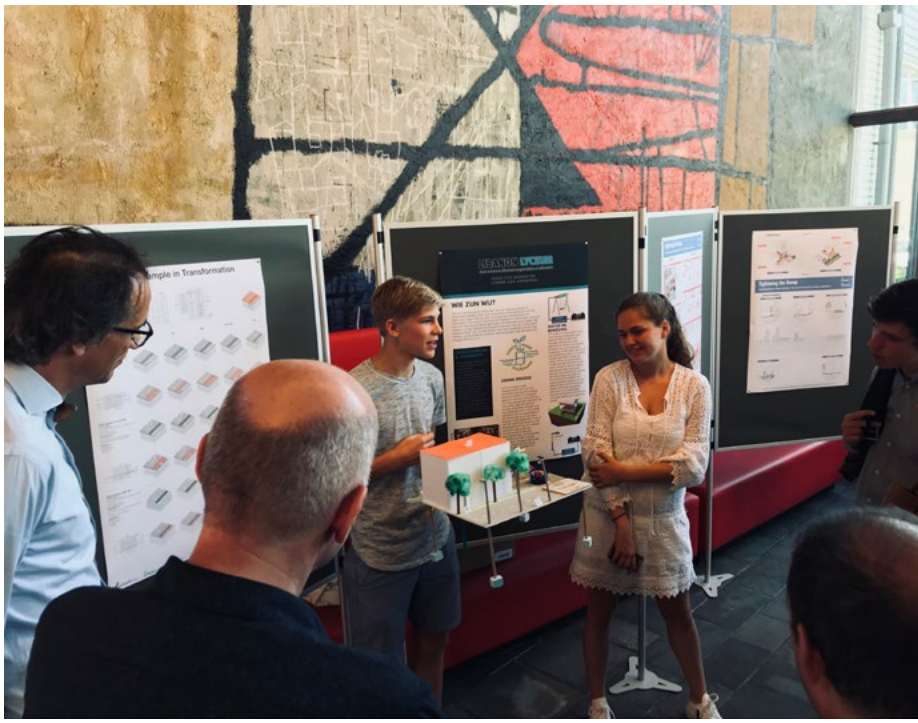
Utrecht locale atelier, 30 May 2018

MSc II Design Studio poster pin-up, 29 June 2018



MSc II Design Studio poster pin-up

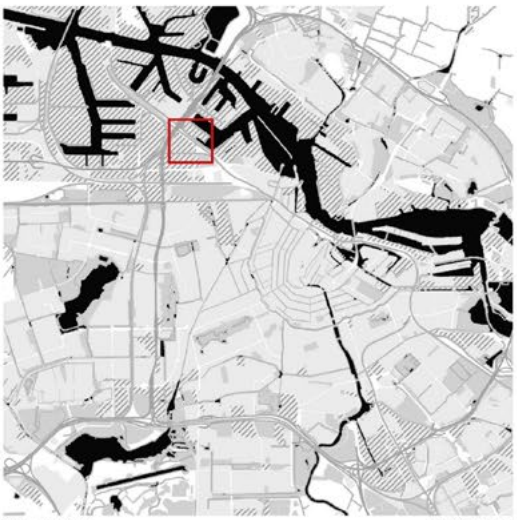
plenary session, panel discussion by representatives of the five cities, 29 June 2018



students of the ‘Technasium’ secondary school discussing their project for Stad van de Toekomst

Amsterdam Analysis

At the start of the analysis, the characteristics of this area are soon clear that alpha triangle is profiling itself as a well-connected district of Amsterdam. Both on a large scale and on a small scale. The following diagrams show the research with motivation and vision on the future of 2050.



location city scale
1 : 50.000

Amsterdam city

location site scale
1 : 5.000

Alfa Driehoek

city analysis

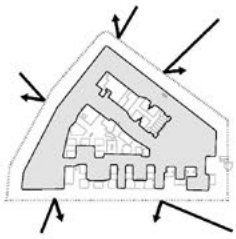
Problem situation 1: monofunctionality

Problem situation 2: Open space

Problem situation 3: Car-dominated

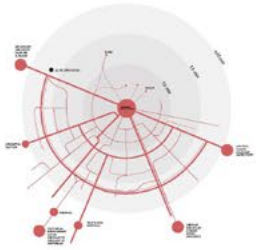
Problem situation 4: Connected yet separated

site specific analysis



Connected yet separated

Future development Havenstad



Connectivity

THE FUTURE OF ALFA DRIEHOEK

The analyzes that have been carried out have four characteristic features where there are opportunities to optimize this area:

– It is well connected but still offers some isolation from the urban space;
– It is often focused on mobility of the car;
–There is a lot of open space;
–The various functions that are situated.

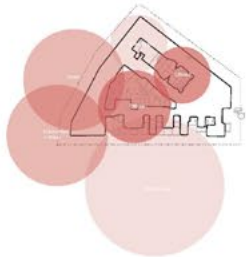
In order to develop an area with a future higher density, these 4 characteristics must be guaranteed and included in this research. The area of Alfa Driehoek will profile itself as the entrance of the city and innovates in new ideas.

The area is characterized by various indispensable companies based there, the water and other useful infrastructural elements, which makes Alfa Driehoek the perfect destination for combining mixed functions of living and working.

The second poster will discuss this further.

ALFA DRIEHOEK

site specific analysis



Functionality

Mobility

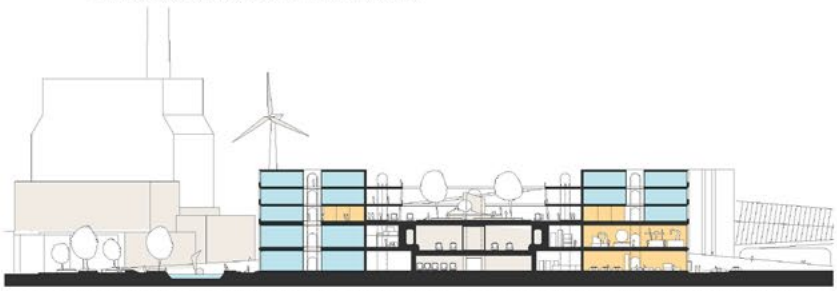
Open space

Amsterdam Design

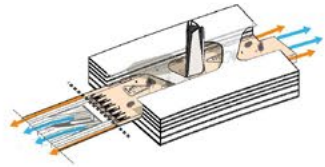
Alfa Driehoek becomes the transitional junction for the city on both a large and a smaller scale. This research was carried out thanks to the research studies / problems that have been found. By not, among other things, rejecting existing functions (with guarantees for the future) but combining them, by seeing the A10 as an important junction and looking at public and private spaces, the earlier problems become important elements for the district.

The 4 characteristics of the area towards a implemented masterplan

Amsterdam Alfa Driehoek HUB

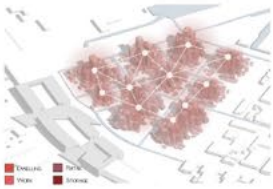


Section cut from the A10 vision as a important HUB for the city. While the A10 is being driven under the ground, the existing road surface of this motorway becomes an important transitional foundation for the hub. From this point on automatic cars can choose whether they go underground to the city center, or enter Alfa Driehoek HUB. By keeping people and cars in an equivalent, balanced position, transport and safety will take on a new dimension.



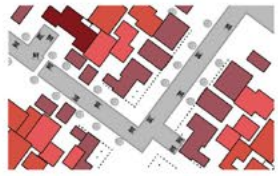
An axonometry of one part of the HUB. The orange represents cars towards the HUB, blue represents A10 towards the city directly.

Connected society



Connection of Islands

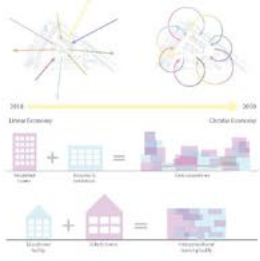
Island with its own identity



Allocated functions on and between islands

Layered public space to privated

Shared Resources approach



"Shared resources" proposal diagrams

The focus of my proposal is "shared resources". Density can be achieved when facilities have multiple functions, but also when the social aspect of sharing is present. The above section is a case study of a mix use block built upon Staples. It incorporates public space on the ground floor with retail spaces and local production spots, and on higher floors houses the school | elderly day care and the care cooperative dwellings of single housing young adults and elderly people. Adding to that, in order to take advantage of existing resources the warehouse-like structure of Staples remains operable until its function becomes redundant, and later on half the structure remains to accommodate facilities within the public space.

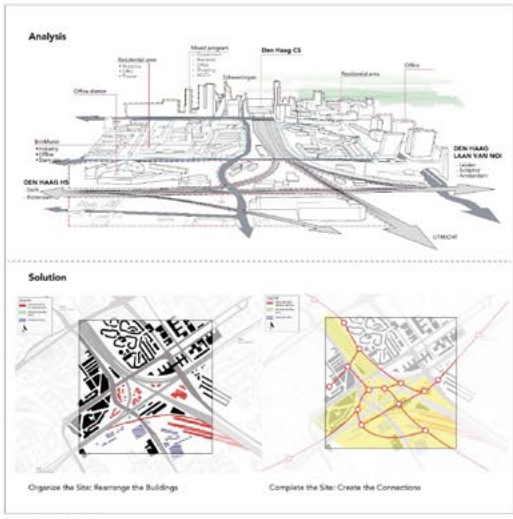
Section A'A of case study

Ground floor plan – connection to the stations and rest of the area

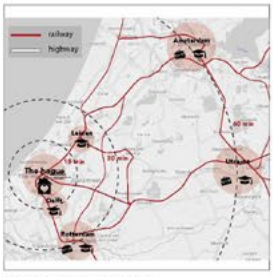
Den Haag Analysis

Main conclusions analysis: Current infrastructure causes the segregation of plots in different 'islands' which create autonomous functions and deteriorates the social segregations (demography, prosperity).

location city scale
outlined morphology

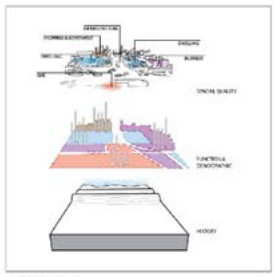


location site scale
main analysis schedules

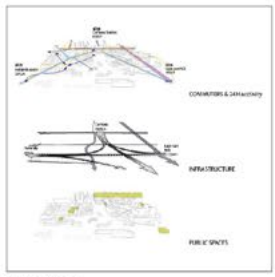


Connection by Transportation

Site Identity



Segregation - 1



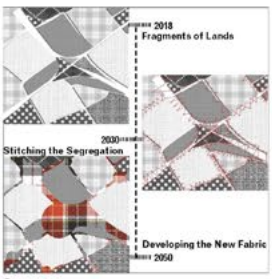
Segregation - 2

Stitching to the Surroundings
by Green Structure

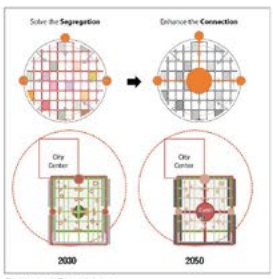
Analysis of Urban Patterns

Stitching with the Communities
by Collective Nodes and Paths

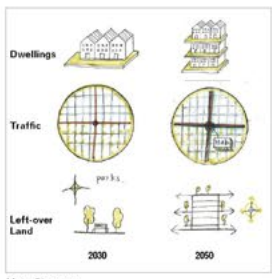
Connection between Inside and Outside the Site



Conception



Goals and Strategies



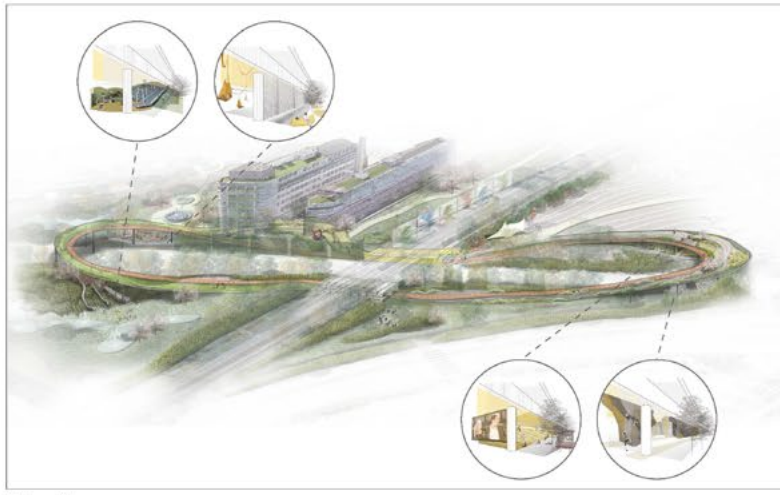
Main Changes

Connection Space also Serve as Different Func-

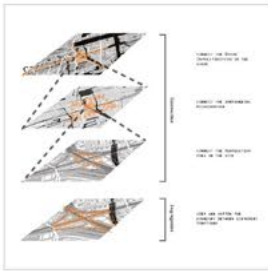
Den Haag Design

"Create a segregated but connected green wonderland in the city." Our design focusses on the cross section of the main railways. Starting from the characteristic 'segregation' of this site, we discussed this shouldn't be a complete negative term in this diverse location—this in-between commercial and residential area. However, to create a better connection between the seggregated parts it is still necessary to connect, not only for this site but also for the green system in The Hague in general. Therefore, we decided to use the advantage of this segregation for different functions and connect them together by tunnels/bridges/crossroads resulting in a complete but diverse park.

Master Plan



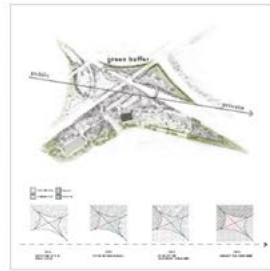
Bird's-eye View



Connection & segregation

Connection strategy

Segregation strategy & Noise control



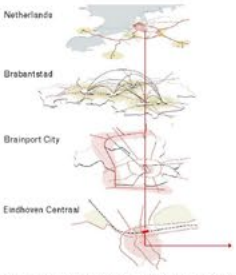
Time sequences

Eindhoven Analysis

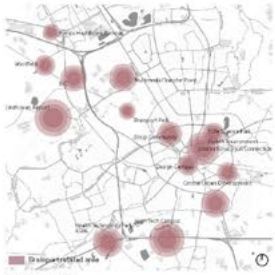
The Fellenoord district is one of the most important development areas in the city. The area forms an infrastructural hub of public transport, motorized traffic and slow traffic. The area itself has formed into the business center district of Eindhoven with mainly offices and proximity of the university. However, the area lacks the lively functions, the area is characterized as desolate and unsafe.

Morphology of Eindhoven on city scale
1 : 50.000

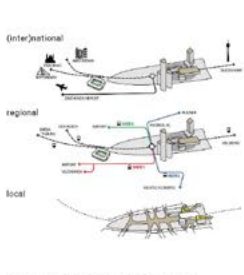
Morphology of Eindhoven on site scale
1 : 5.000



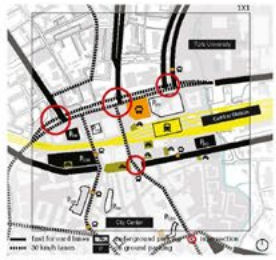
Importance of Eindhoven on international scale
(source: Urhahn | stedenbouw & strategie, 2012)



Brainport City



Eindhoven Central and its surrounding
(source: Urhahn | stedenbouw & strategie, 2017)



Transport infrastructures
Traffic lanes | intersection | parking area | station | railways

Program in plinth of buildings
Lot of parking area and unlively functions in the plinth

Consequence of paved surfaces
Flooding in the tunnels | climate adaptiveness

Pedestrian and cyclist routes in Fellenoord
Highly efficient, but very unclear and unfriendly

Dominant and obstruct infrastructures
No human scale

Quality of green (and water)

Quality of public space

Paved surfaces in Fellenoord

The Fellenoord area is lacking a good quality of p ublic space. Infrastructure is dominant and obstruct. There are complex and unfriendly routes for pedestrians and cyclists. There is a lack of high quality green, most of the area is paved and because of that there is a problem with filtration of water.

The station area should be a the place where all these themes come together. It should be the entrance to the city. It should support Eindhoven's function as the center of the Brainport area. It should show that a green public space is one of the main assets of Eindhoven. It should be a nice place for both inhabitants and visitors. It is an ideal location for center city living and a high-quality business environment for the South of the Netherlands at the same time.

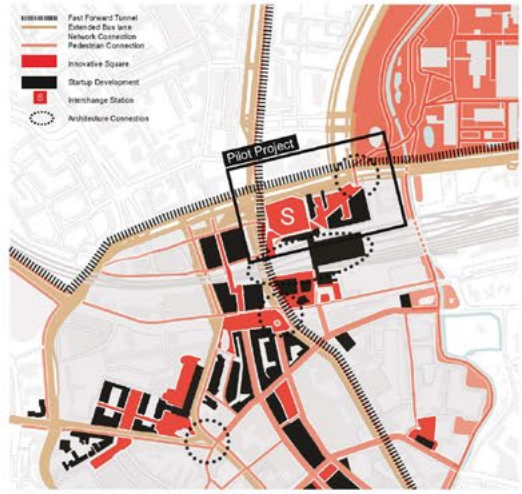
Eindhoven Design

Four proposals which improve the quality of the public space in Fellenoord are shown below. These proposals in order: create a multilayered program, connect the train station to its historical axis, reclaim and consolidate the fragmented spaces and constitute a new innovative corridor for start-up society. All different proposals aim to make the Fellenoord district a pleasant place to appear in.

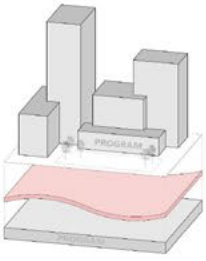
Proposal 1: Multilayering of program with an active plinth (top: entrance new busstation, bottom: view from the Vestdijktunnel) | Ilse de Jong, Daphne Homan, Linde Jorritsma

Proposal 2: A new connection (East - West) from the train station to the historical axis | Tan Li

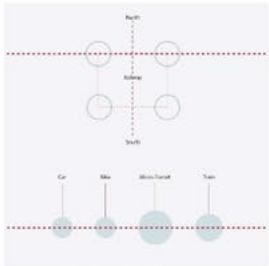
Proposal 3: **Masterplan** | **Reclaim** and consolidate the fragmented spaces, rebuild connections between neighborhoods, aiming to transform the mono-function space to multipurpose use | Cai Huang



Proposal 4: New innovative corridor for startup society | Krit Thienvutichai



Concept 1: Adding a new ground level by using the existing high differences: making space for new program and public space | Ilse de Jong, Daphne Homan, Linde Jorritsma



Concept 2: A new hierarchy of transportation systems | Tan Li

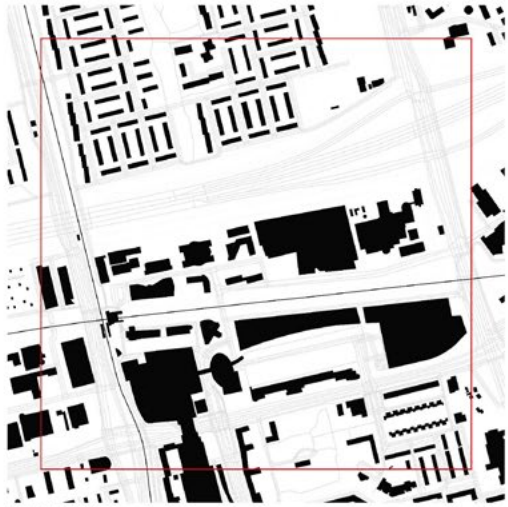
Concept 3: Strengthen connections between neighborhoods and continue public space | Cai Huang

Concept 4: New Relationship between public space, transporation and architecture | Krit Thienvutichai

Rotterdam Analysis

Rotterdam Alexander is characterized by great connectivity and proximity to many recreational areas, especially the Green Heart. However, it is lacking local identity due to the several problems occurring in the area. Infrastructure mostly functions as a border; mono-functional zoning into residential, office and retail exists; there are no "third places" and strong car-orientation generates a neglected ground floor. Also, the green and water is of low quality. Solving these issues is the objective.

location city scale
outlined morphology
1 : 50.000



location site scale
main analysis schedules
1 : 5.000

city analysis

context - connectivity to the region

context - local scale

centers and sub-centers

axonometric protraying building heights

problem statement

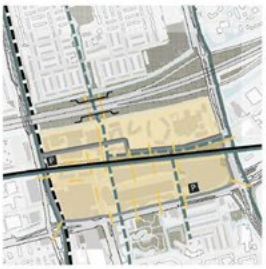
borders

monofunctional zoning

value of green and water bodies

lack of active public space

strategy



infrastructure

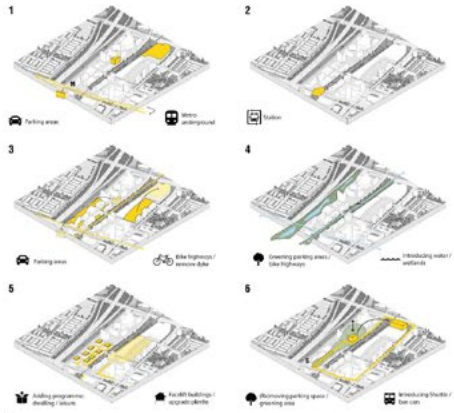
introduction of recreational nodes and residential

intensification of green

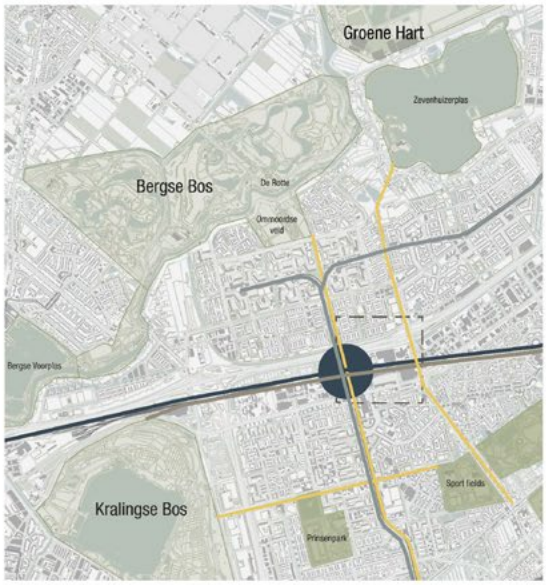
To create a place with an identity which acts globally (Randstad scale) and locally (neighbourhood scale) it is necessary to implement new functions and infrastructure for the area. By creating slow and fast traffic and solving the bottlenecks, bikes and pedestrians obtain better access to the site, e.g. creating a car-free zone until 2050 with shuttle services and shared mobility substituting it. Simultaneously, car-parking is relocated into parking-towers or enlarged existing parking spaces. The highway allows a connection between the north and south and introduces a new hub for autonomous cars. The implementation of leisure-based activities or third places will ensure hybridisation of programme, making the area attractive and usable day and night. Retail and working space needs these changes to survive in the future. Moreover, additional residential buildings solve the need for density. Increasing the quality of green and public spaces, by connecting it to larger entities will be one of the goals in terms of sustainability.

Rotterdam Design

The whole process starts by considering the status of mobility in the future. Firstly, the widespread parking will be concentrated at three points, and the unlocked spaces will be regarded as new public spaces. The metro's railway will be relocated to the underground, and the new station will replace the old one in the following step. By introduction of bike's highway and more e-bike to the site, there will be more interaction and need for new spaces. This demand will be answered by densification of existing buildings and introduction of new programs to the site. Finally, in the following steps, the whole area will be car-free and pedestrian friendly.



phases



master plan scale 1:25 000

master plan scale 1:5 000

collages

view at public plaza

view at lifted railway

Dagmara Piszcz
Shirin Hadi
Bertrand Tan
Amin Ghaffarinejad
Kendra Heide
Juliette Zegers

Utrecht Analysis

The main challenge of The City of the Future was found to be the notion of misconnection. We identified three levels of misconnection:
[People to People – social seclusion
[People to Environment
[spatial segregation
During the years, the development of the city was guided and restricted by commuting

Utrecht City Scale
1 : 50.000

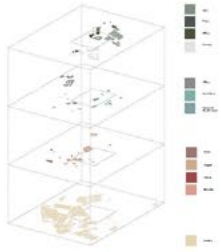
Location Site Scale
1 : 5.000

Urban Fabric
The growth of Utrecht from 1940's onwards, following the development of highways.

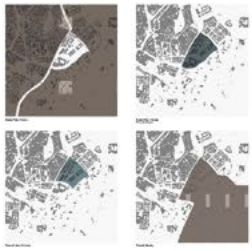
Waterlinie
Historical military protection

Infrastructure
The most important infrastructure in Utrecht and around the site

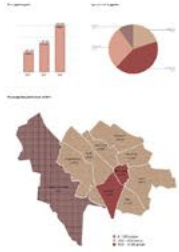
Division in zones
The infrastructure divide the project area into four isolated clusters.



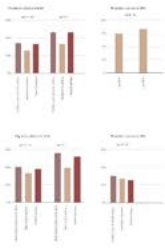
Typologies
The different typologies on the site.



Mapping Vacancies
Parts of the area used in different days of the week.



Population Growth
Expected population growth in the Netherlands until 2040.

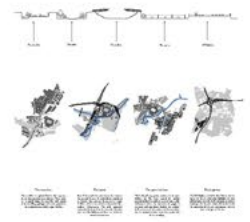


Loneliness
Percentage of people affected by loneliness divided by years and ages.

Green & Water I

Green & Water II

Meeting places



Urban Sections

Utrecht Design

The development of the site is planned through three phases:
Phase 1 | Development of a recreational area
Phase 2 | Expansion of the area
Phase 3 | Transformation of the Waterlinieweg
The phases are addressing the issues of housing, public space, biodiversity, sports and flooding among others. Starting from the present day, a transition towards the year 2040 is enabled. As a result, a well functioning area occurs, which is able to facilitate future scenarios.

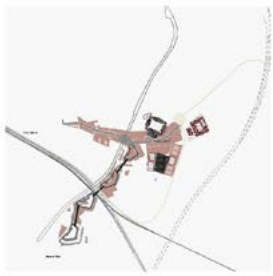
Unlocking Potentialities
A connection that would transform a fragmented territory into a well-functioning area within the urban fabric of Utrecht able to facilitate future scenarios.

Misconnection
Physical Segregation| People and Environment| Social Seclusion

Physical Segregation

People and Environment

Social Seclusion



Phase 1

Phase 2

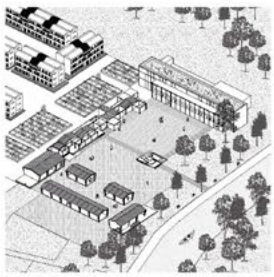
Phase 3

Phase 1 | Recreational Area
1. Canal: Connection between the city and the station| Man made green interventions.
2. Waterlinie: Green promenade that extends along the fortifications line.
Experience biodiversity | Lookouts onto the historic landscape.
3. Housing: Community housing expirment dwellings.

Phase 2 | Expansion Area
4. Flooding area: Defence and biodiversity
5. Expansion of pathway along the canal reinforcing the public character of the route.
3. Housing: Community housing expirment dwellings.
6. Residental area: expansion of dwellings.
7. Community center and market, expansion of the publicarea across the canal.
8. Opening up a route towards the wider landscape with a green "bridge" over A27.

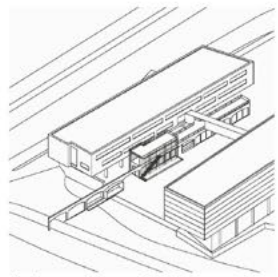
Phase 3 | Transformation of Waterlinieweg
9. Transformation of the Waterlinieweg into a public promenade, with pedestrian and cyclist routes.
10. Redevelopment towards a more open design. Reprogramming the existing buildings around the stadium.

Final Proposed Mapping



'The Community Square' situated on the south side of the canal behind the stadium.
Sebastian Andersson | Nik Christopoulos | Riccardo Sforzi

The 'Harbour' along the waterline.
Zhu Huadong



The 'Transition' soutwest of the Stadion
Galgenwaard.
Philipp Wenzl

The 'Urban Cut'.
Danica Mijonic

city of the future
stad van de toekomst

WORKSHOP

workshop
GENERIC

WORKSHOP: FASCINATION AND ANTI-FASCINATION

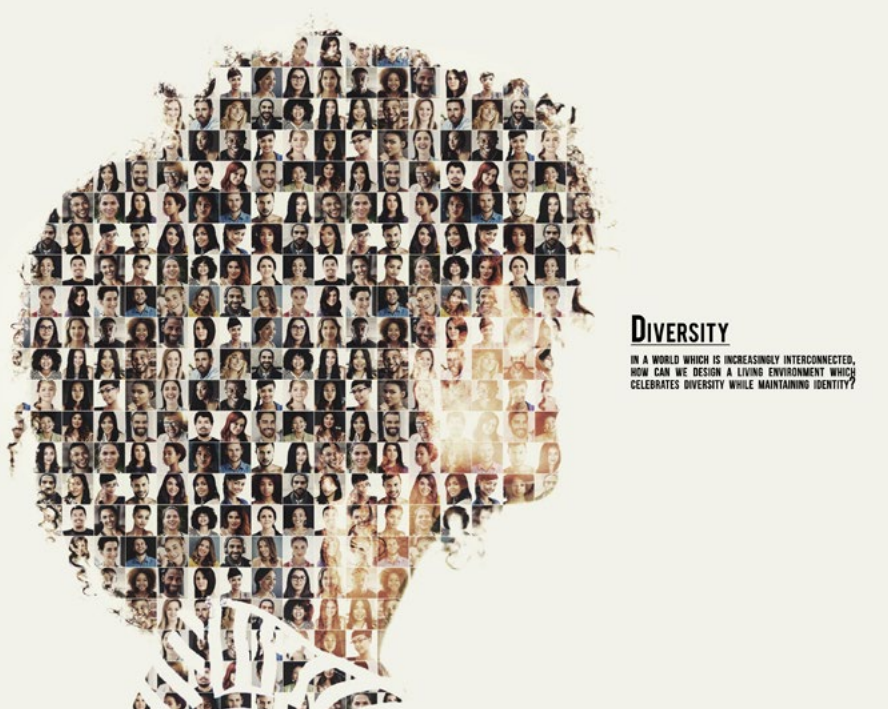
In the second week of the project a workshop was organized to help students position themselves. Spread over two days, a specific method was presented, helping the students go from their fascination through an idea of a possible future to a concept within the five cities.

The first day started with a presentation by the participants based on three diagrams of their fascination that they were asked to draw individually. In this fascination, there was no specific city in mind: the aim was just to find out what they wanted to work on without being bound by limitations of a site. In a plenary discussion, some students presented their fascinations after which all students were asked to draw an anti-fascination based on their own fascination. This with the aim to take the students out of their comfort zone and help them find the limitations and strengths of their fascination. Again, there was a plenary discussion with a few students presenting their fascinations and anti-fascinations. New groups were put together based on the fascination only. These groups were asked to find common ground between their fascinations and the design of a possible future. Back casting helped students think idealistically instead of just reacting on the present. This idealistic approach was a great start before bringing this into a physical context. At the end the scenarios were presented by collages and models.

The second day started again with an explanatory presentation. The students were put back together in their previous ‘city groups’. This meant that the groups knew all ins and outs of the cities along with their problems and opportunities. At the same time, each person brought an idealistic scenario from the previous day that came about from a back and forth thinking between different fascinations and anti-fascinations. The task was to think of interventions that could be implemented in the context and would work as catalysts in order to reach the goals set by the scenarios. By considering the physical context and its limitations while still trying to reach the ideal future of the abstract scenario, the groups came up with concepts presented in collages and models. These presentations showed some really strong ideas that reacted both on speculations of the future and the physical situation of the present. Two quite intense workshop days resulted in outputs that helped the students position themselves enhancing the continuation of their projects.

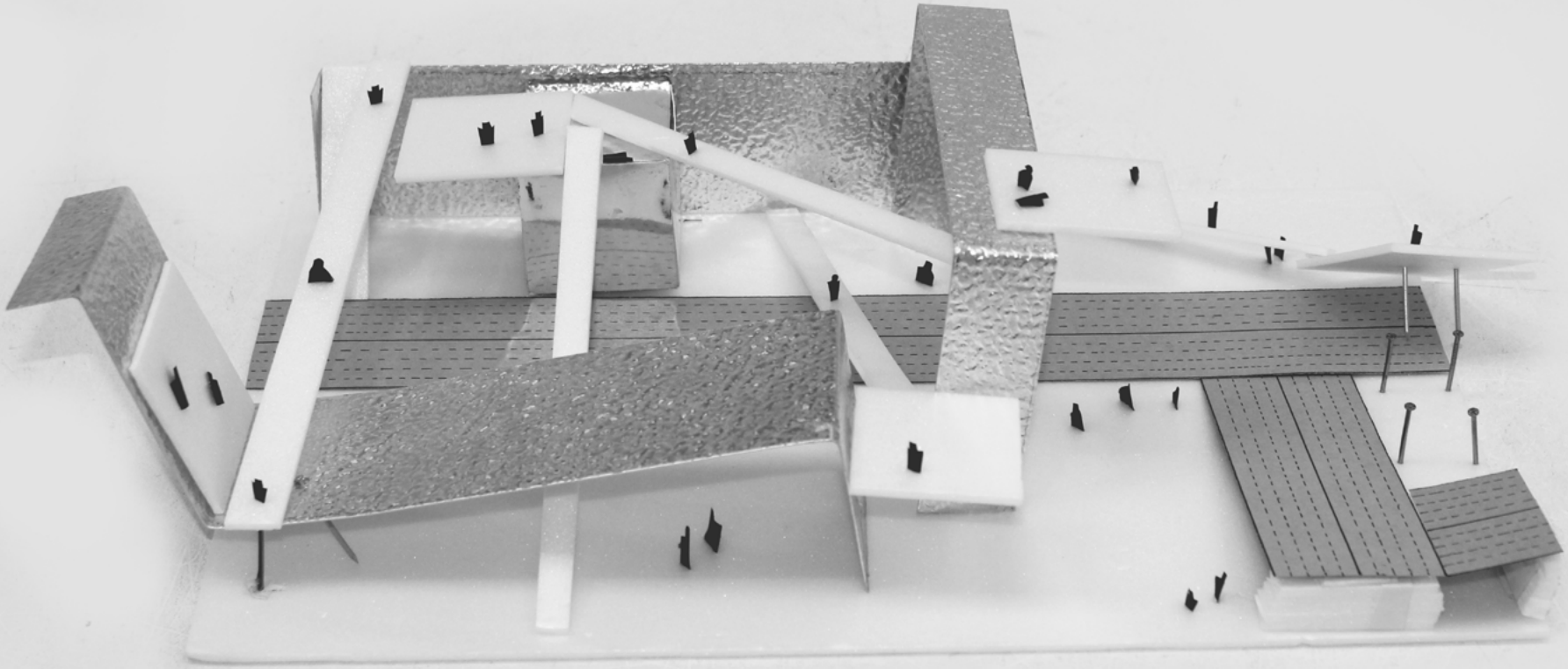
—Juul Heuvelmans, July 2018

personal fascination by Danica Mijonić: Acausal parallelism



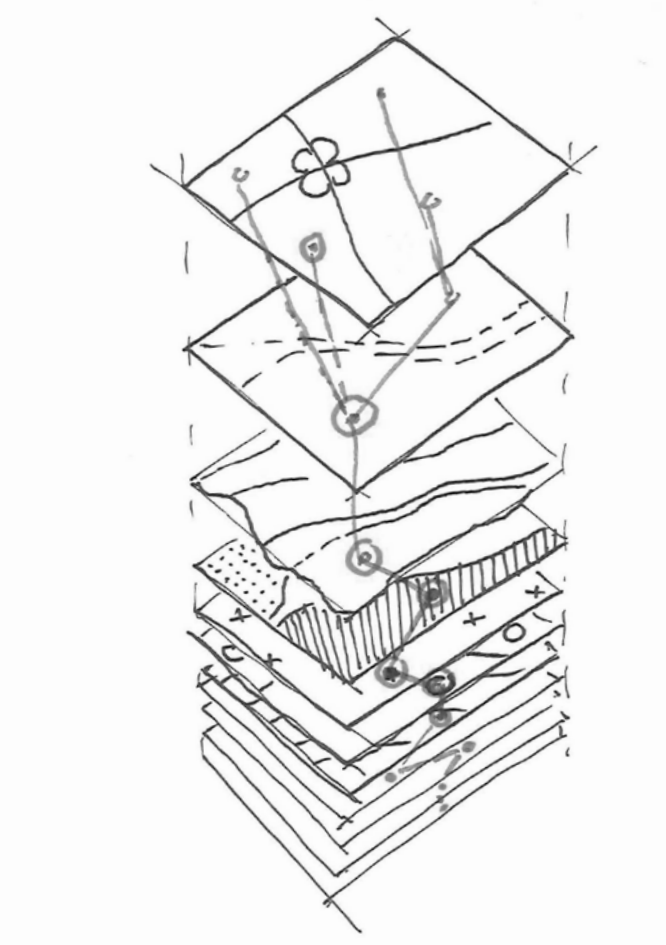
personal fascination by Bertrand Tan: diversity

final concept model of the infrastructure team



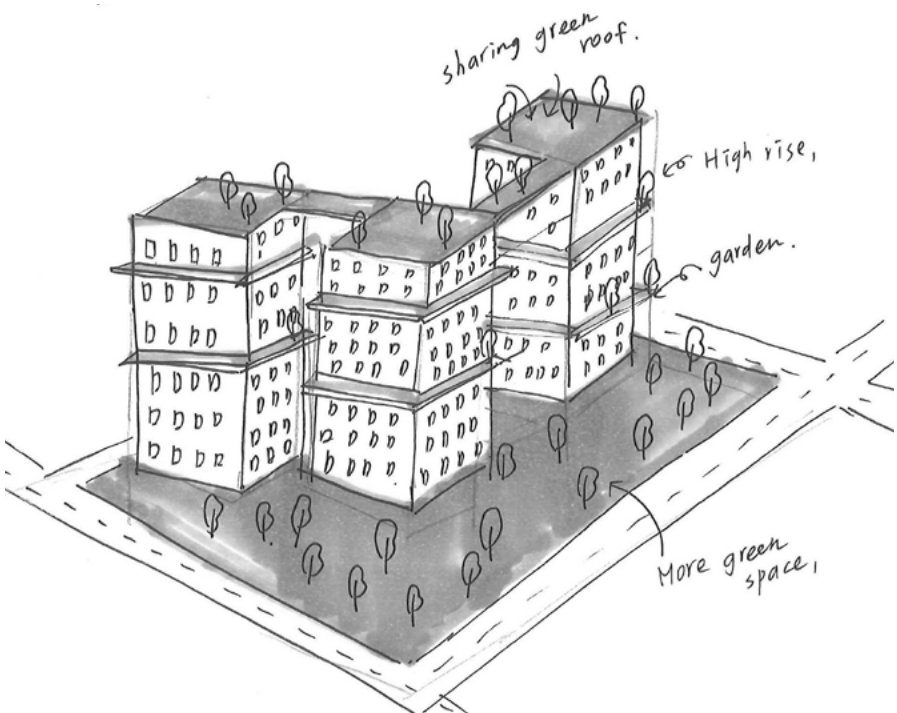

STAR SUPPLY COMPANY

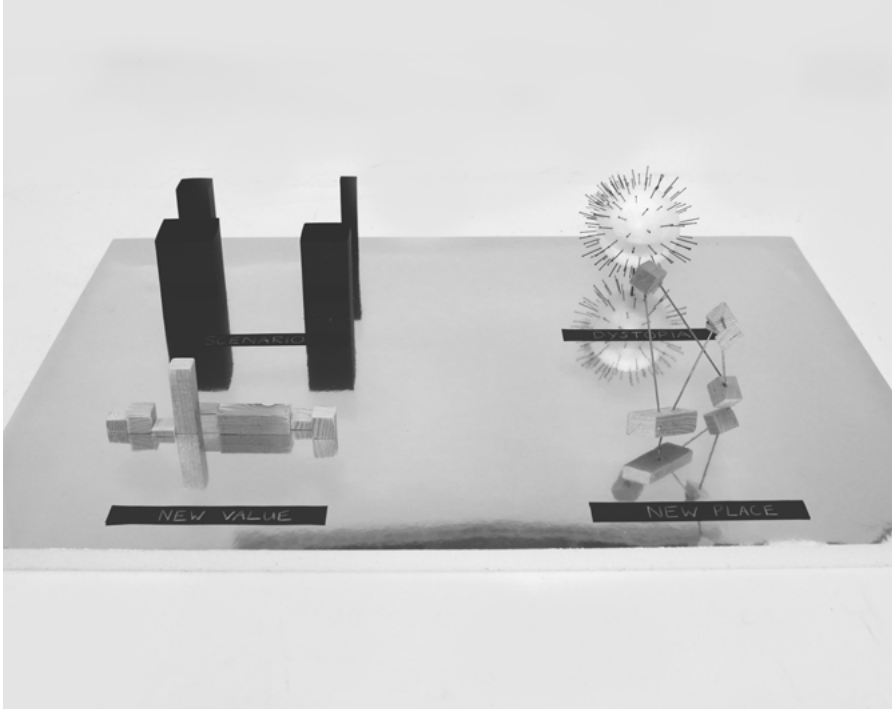
final collage of the social nodes team



fascination by Zach Mellas: layered data

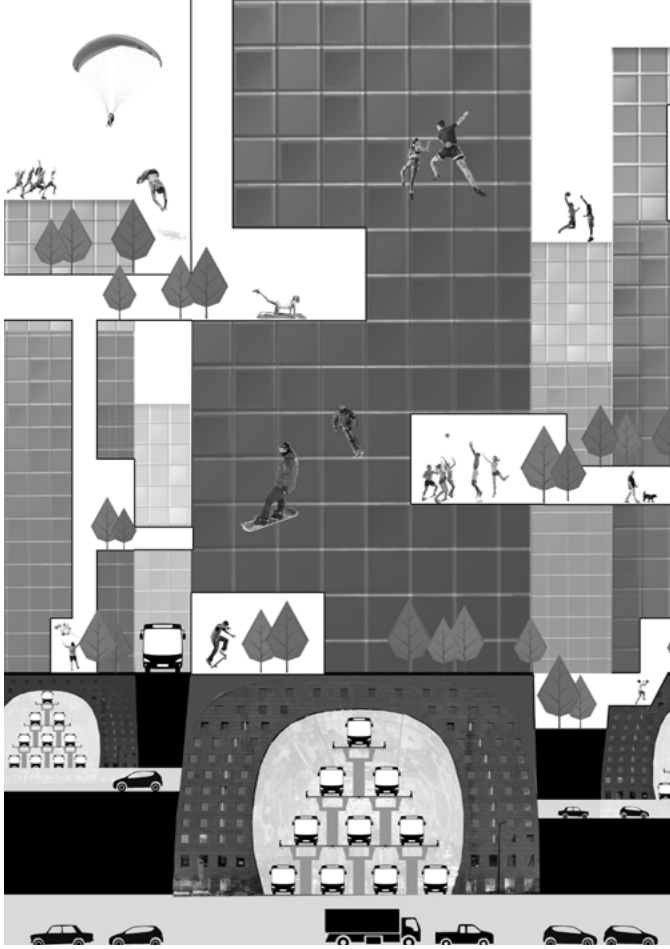
fascination by Alice Chen: human health





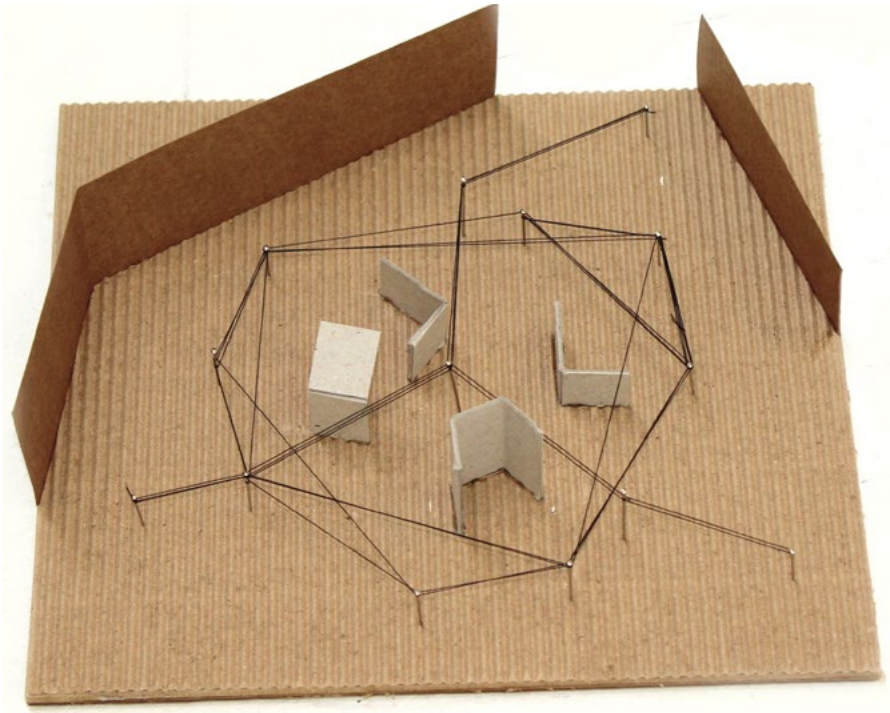
final model technology team

final collage globalization team



final collage infrastructure team

final model social nodes team



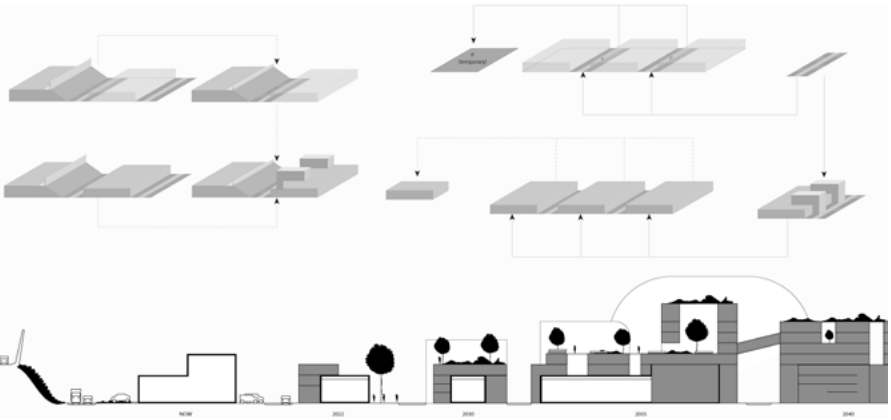
workshop
SPECIFIC

Designers' acting and expressions are based on their frame of reference, the current state in life and many more factors. But a designer is also driven by its fascination. Every concept, process or even the acting in the daily life is based on personal interests and interaction. But how do these fascinations come to life and shape during a design processes? And how is one capable of being aware of their own fascinations? A matter of reflection on previous work might be key to this understanding. But can one force themselves presenting a fascination without knowing what path it will take in a design process before the first line is put on paper? This was the task for us students while participating in a workshop with our fascination as the main focus.

The workshop acted as a first acknowledgment of our personal fascination. In my case, I gave a short pitch of the matter of social interaction. By spending time on thinking about our interest, the first steps to our design concepts took place. During the design process of the City of the Future, a lot of students managed to translate their fascination into the guiding theme. In my design process, I was a witness of seeing the matter of social interaction becoming the solution for isolation in the future world. By utilizing interventions in the public space, social interaction aimed to become a remedy against loneliness and depression. Designing driven by a fascination puts more curiosity into the design and thus will result a more comprehensive design in the end.

—Erik Hoekstra, July 2018

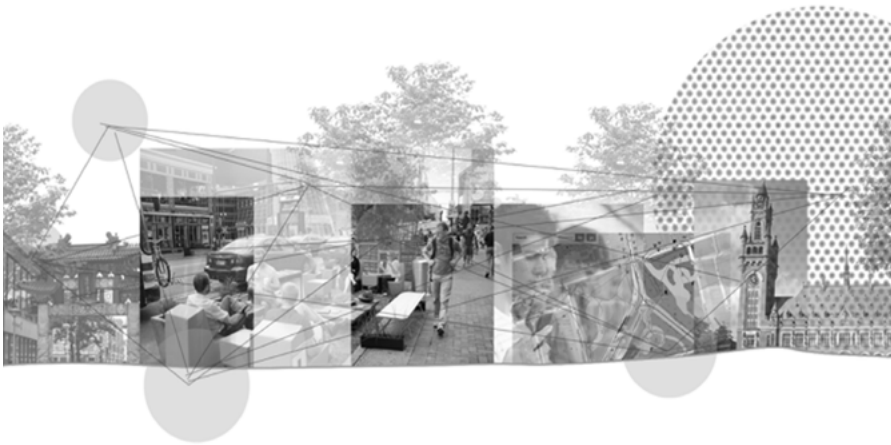
site specific approach team Rotterdam



site specific approach team Amsterdam

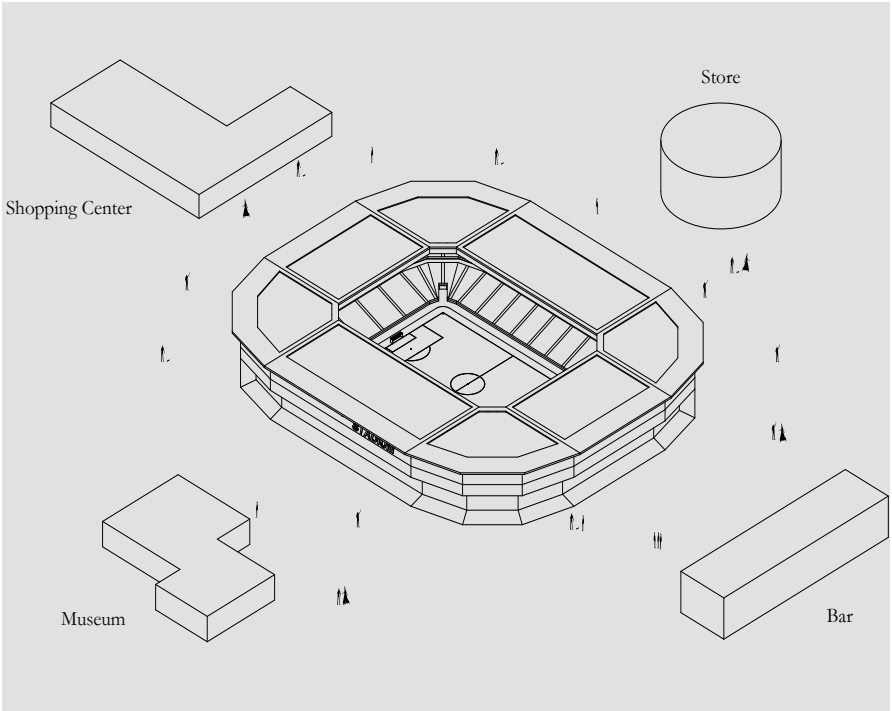
site specific approach team Rotterdam

site specific approach team Den Haag: the knot

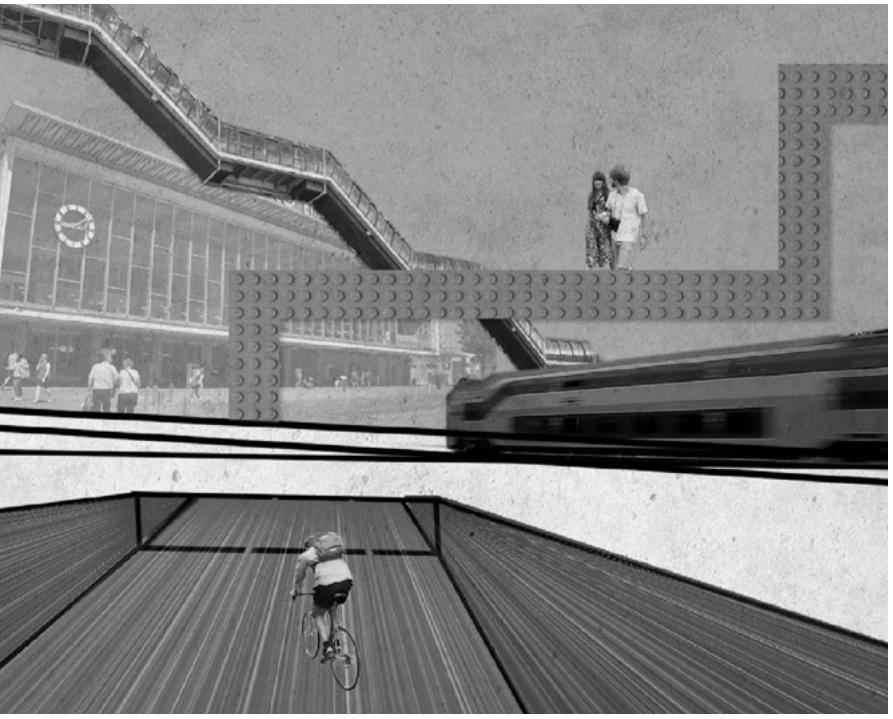


site specific approach team Den Haag: the knot

site specific approach team Utrecht



site specific approach team Utrecht



site specific approach team Eindhoven

site specific approach team Eindhoven


200
240
DELTAPATENTS
FUJITSU
TE HUUR
Timing

city of the future
stad van de toekomst

DESIGN PHASE

design phase

AMSTERDAM

amsterdam

INTRODUCTION

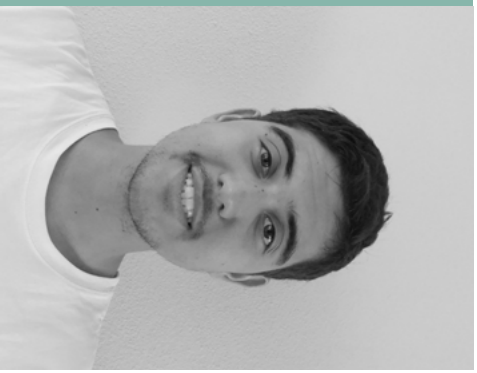
HAVENSTAD

The future of Amsterdam is clearly focused on densification. This ambition seems obvious when keeping in mind Amsterdam's strong attraction within the Netherlands and abroad. Many people move here, not to live in the surroundings of Amsterdam but to live in the city. By mapping possibilities for 2025, the municipality expects great opportunities for densification and transformation of the ring road A10 area. Places that once seemed abandoned will be naturally connected with the city center and in that way, will become part of the city.

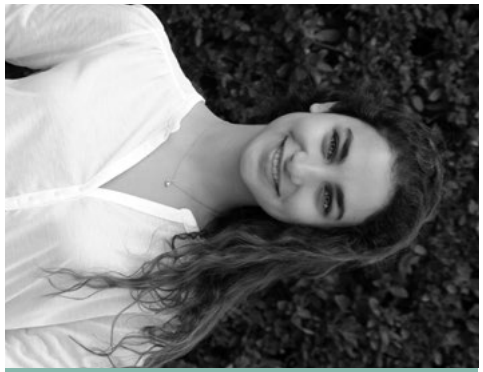
Every day thousands of people move from wherever towards the city. These are not just increasing amounts of touristic and daily visits of a recreational nature, Amsterdam is also a concentration point of jobs. Add these together and it becomes clear that the mobility system needs to be improved in order to accommodate these flows. It is clear that Amsterdam Central Station can no longer accommodate all public transport flows. This means that the other four existing stations, including Sloterdijk Station, need to become full-fledged city gates as well.

Amsterdam wants to stay the city for everyone. How do you best respond to the full width of the urban target? And how can we reach the point where everyone has a place in the city of the future?

Mesut
ULKÜ

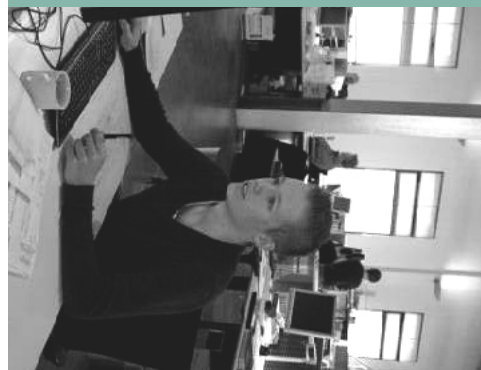


Zach
MELLAS



Elena
ROSSONI

Erik
HOEKSTRA



amsterdam

ANALYSIS

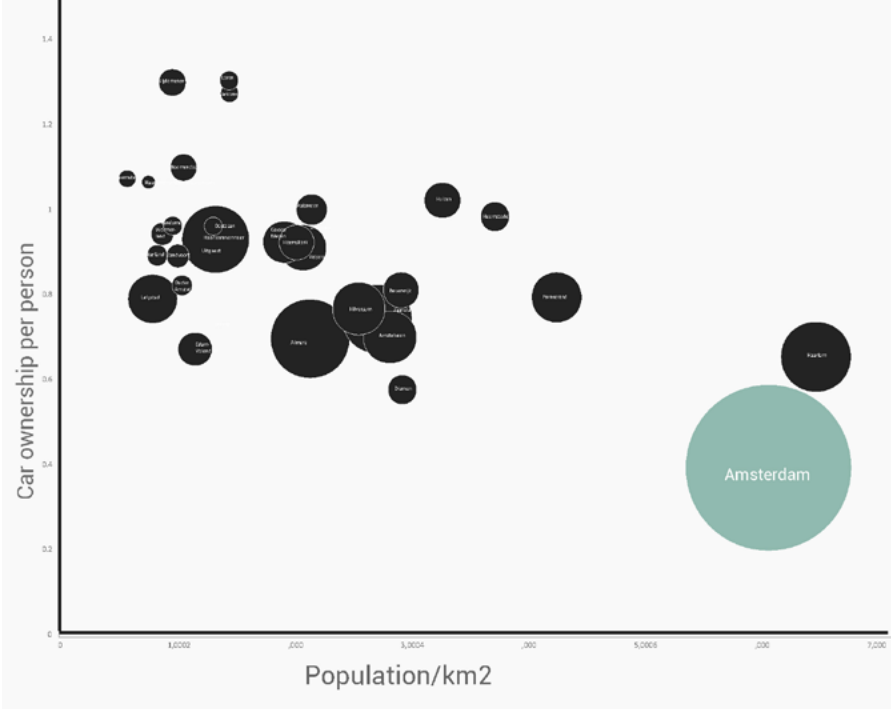
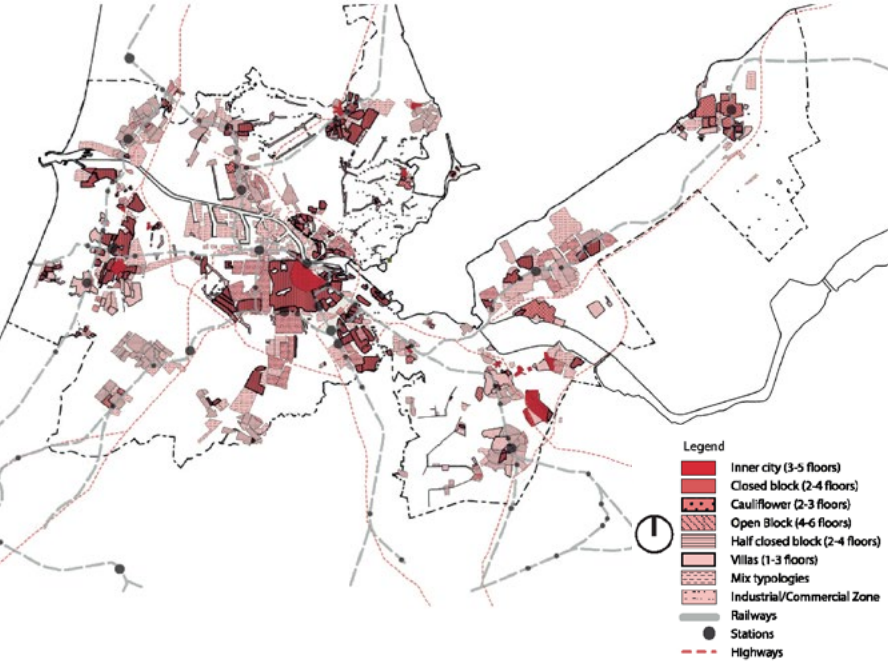
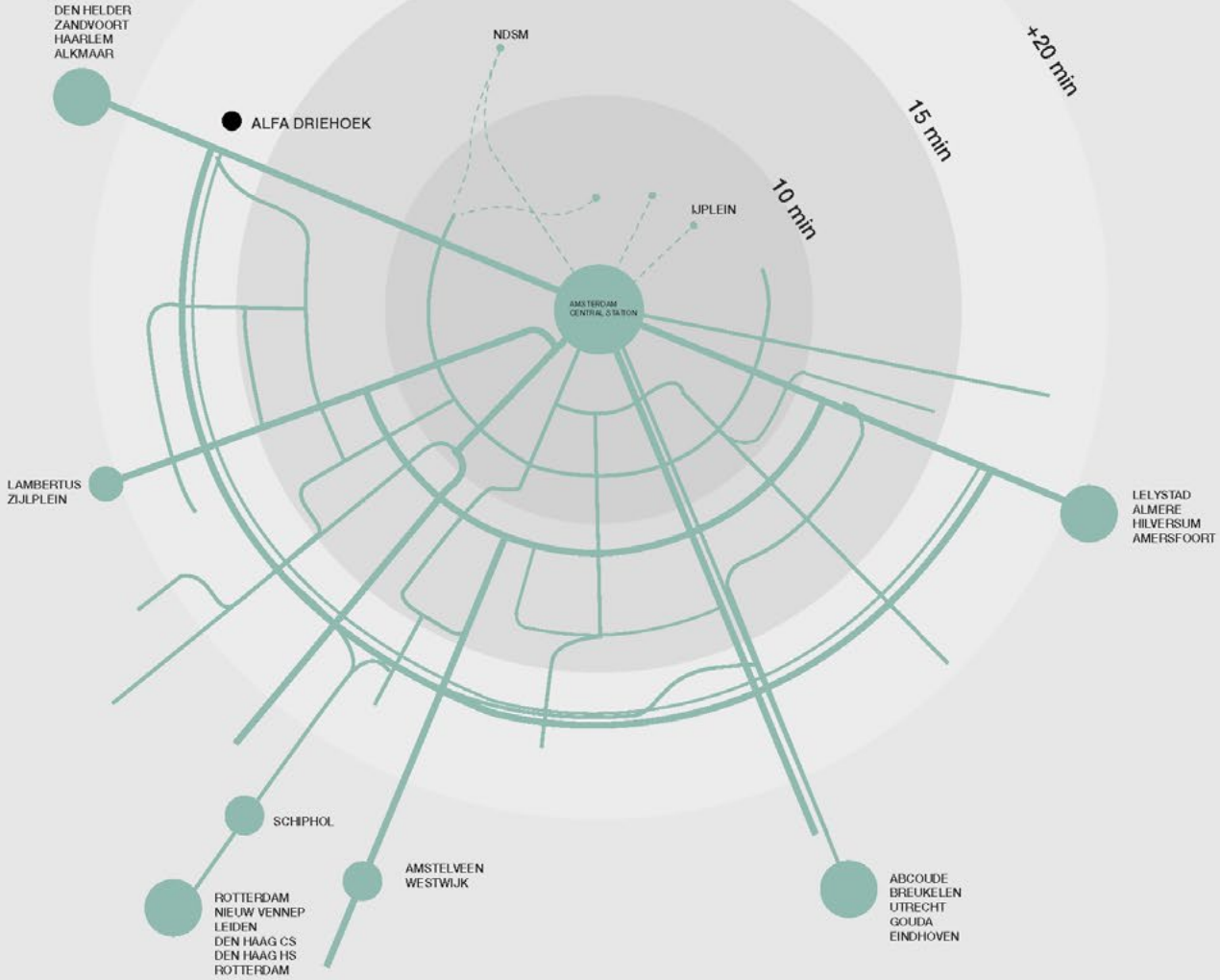


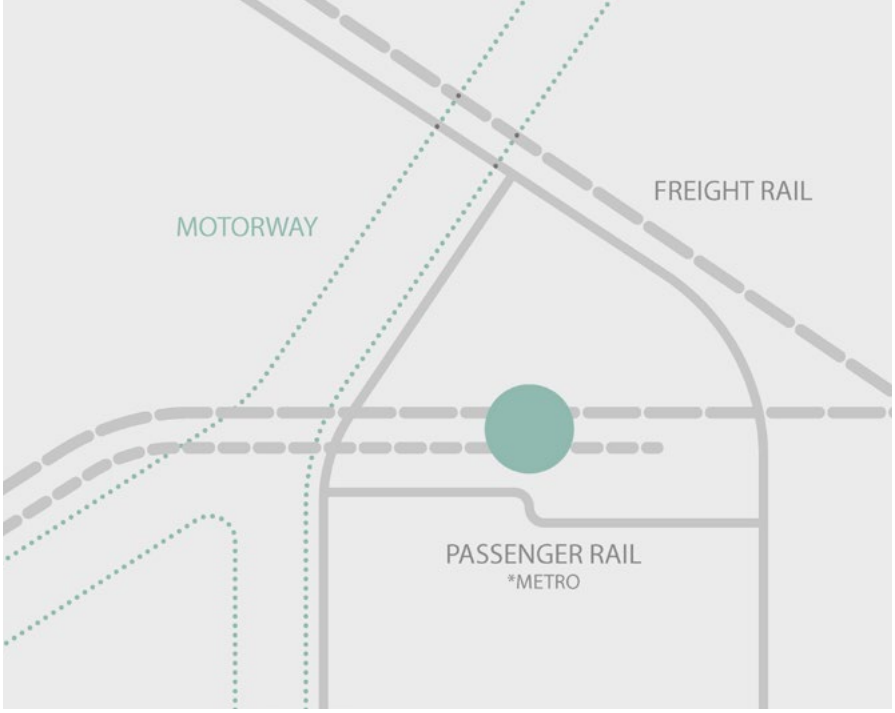
image description

urban fabric of Amsterdam metropolitan area

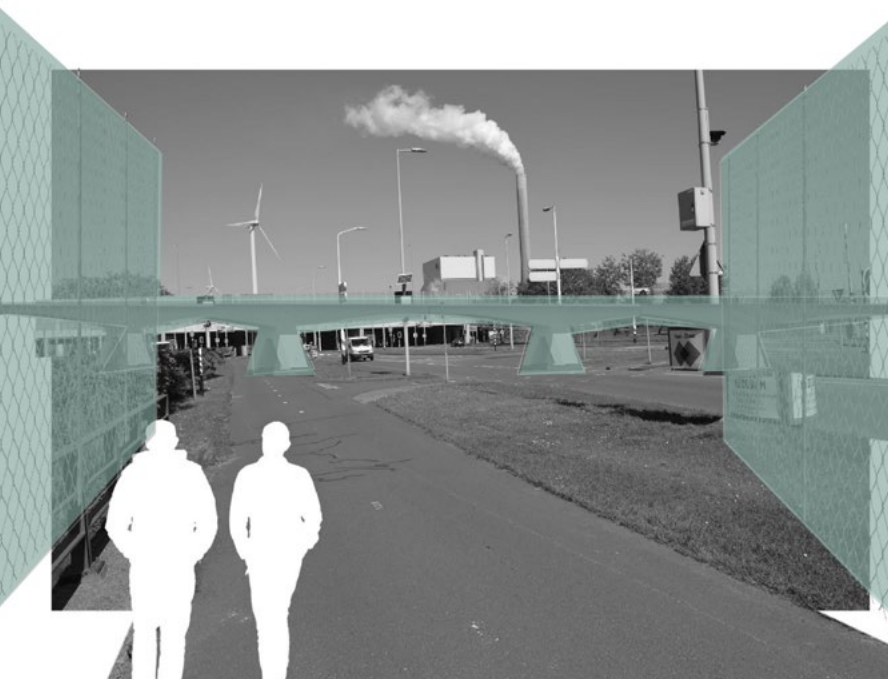


connectivity of the Amsterdam metropolitan area


DEN HELDER
ZANDVOORT
HAARLEM
ALKMAAR
ALFA DRIEHOEK
NDSM
IJPLEIN
10 min
15 min
+20 min
AMSTERDAM CENTRAL STATION
LAMBERTUS ZIJLPLEIN
LELYSTAD
ALMERE
HILVERSUM
AMERSFOORT
SCHIPHOL
ROTTERDAM
NIEUW VENNEP
LEIDEN
DEN HAAG CS
DEN HAAG HS
ROTTERDAM
AMSTELVEEN
WESTWIJK
ABCOUDE
BREUKELEN
UTRECHT
GOUDA
EINDHOVEN



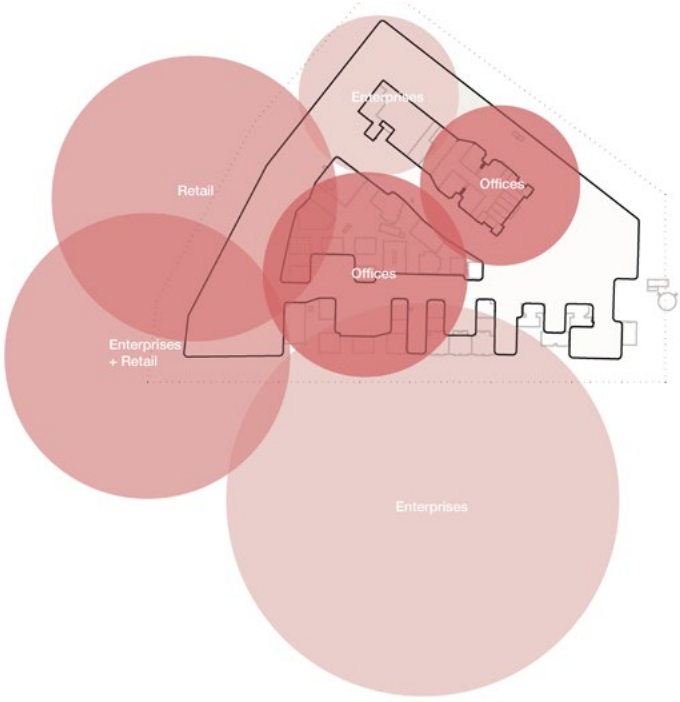
connection and circulation of Amsterdam Havenstad



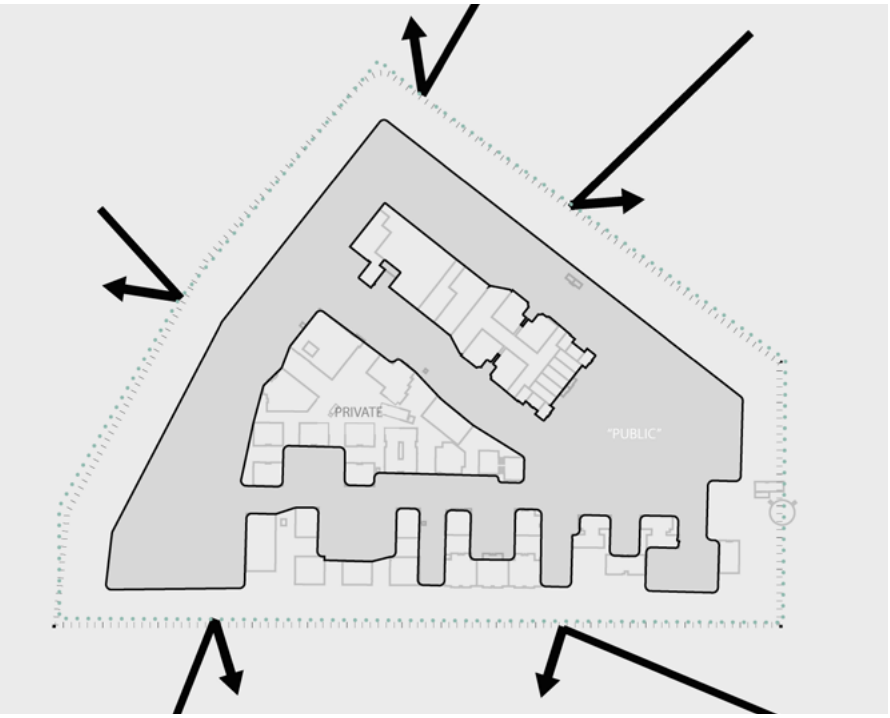
connection and separation

streets as realm of the car

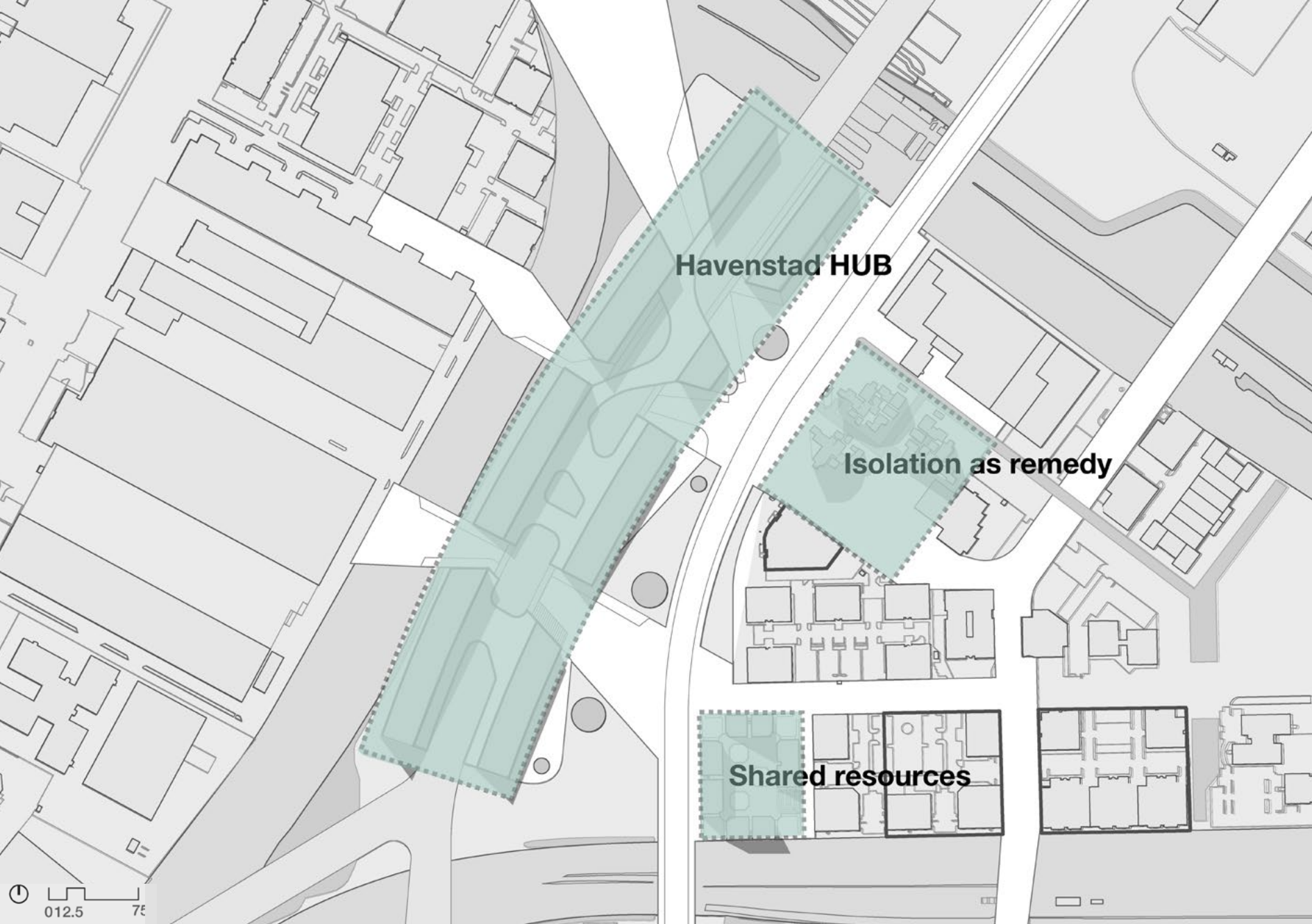
funtional distribution of Amsterdam Havenstad



delineation of Amsterdam Havenstad



border conditions Amsterdam Havenstad


Havenstad HUB
Isolation as remedy
Shared resources
012.5

amsterdam

PERSONAL PROJECTS

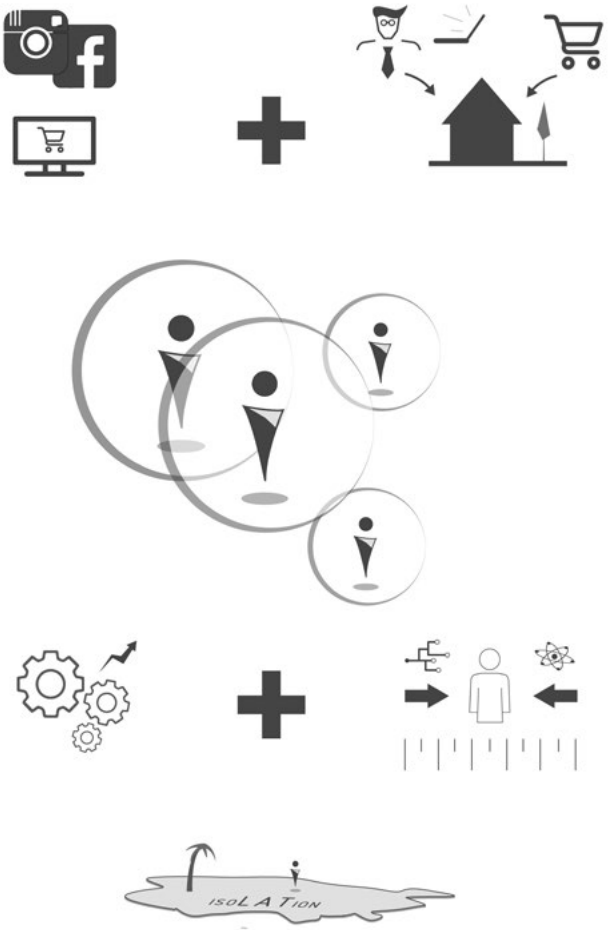
amsterdam

ERIK HOEKSTRA

ISOLATION AS REMEDY

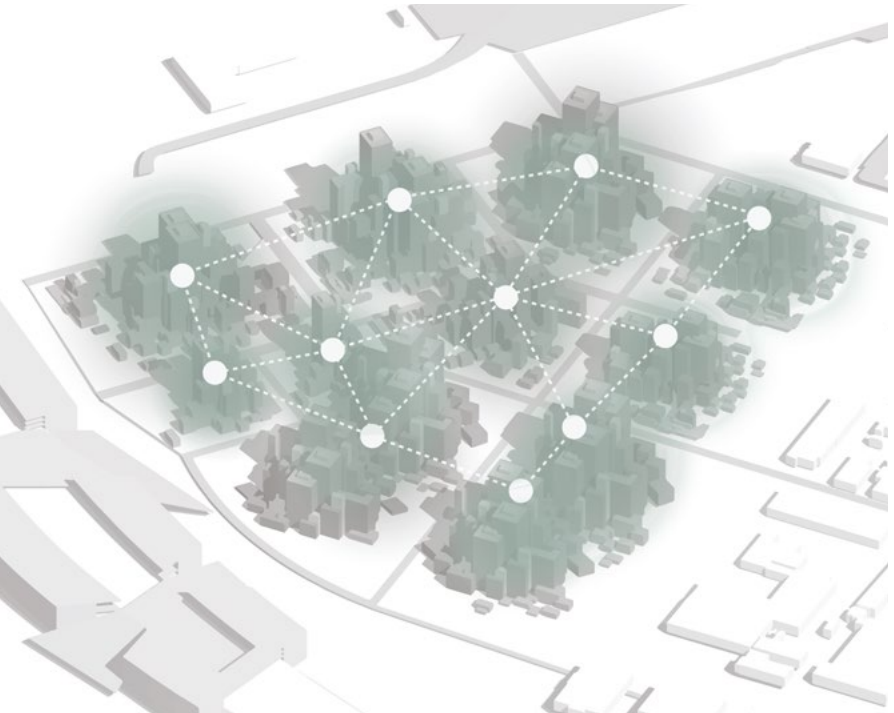
The design of the future world creates opportunities to reflect on the needs of the life living the city. Working, shopping from our own home and the perfect life media reflects are triggers of living in ultimate isolation. There is no need anymore to get out of the house. This in combination with the new mobile technologies for instance and change in human behavior might provoke depression, stress, and loneliness. The Alfa Driehoek acts as a remedy to these problems in the public realm.

Islands have been shaped in order to create unique places with their own identities and facilities. These different islands are connected by water and can be visited through the public space on multiple levels. Every island consists of a high amount of dwellings, retail, workspaces, and a central storage. These functions are arranged on the island by its acting in the public realm. Regulated through three different levels of public space, which are stacked from a public to private atmosphere, the mass of the functions create tapered shaped urban tissues. In its core, the islands have a storage unit which suffices the islands demands in logistics and storing. In this way the public space encourages social interactions from happening, the islands create a remedy for isolation.

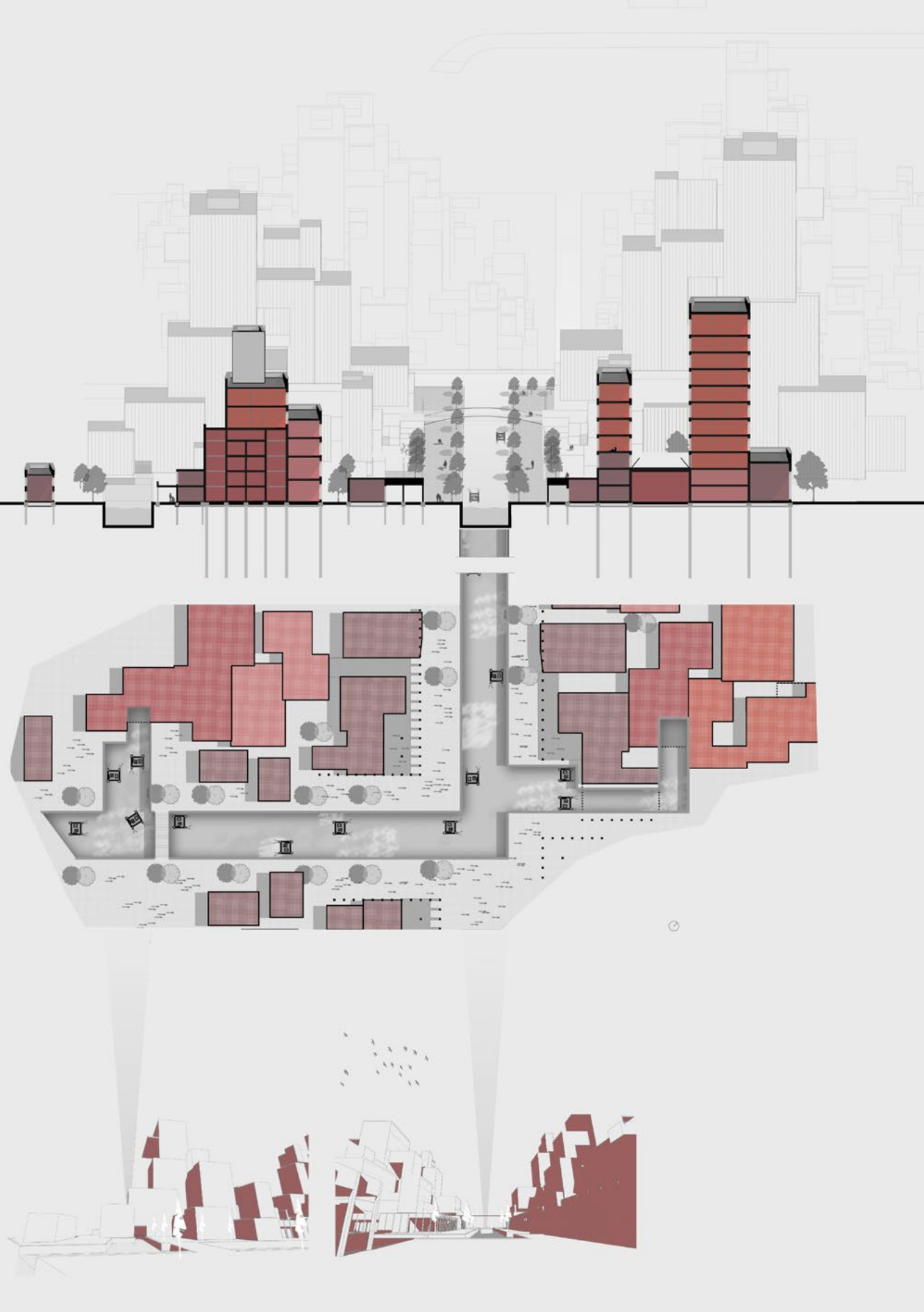


problem statement: social isolation

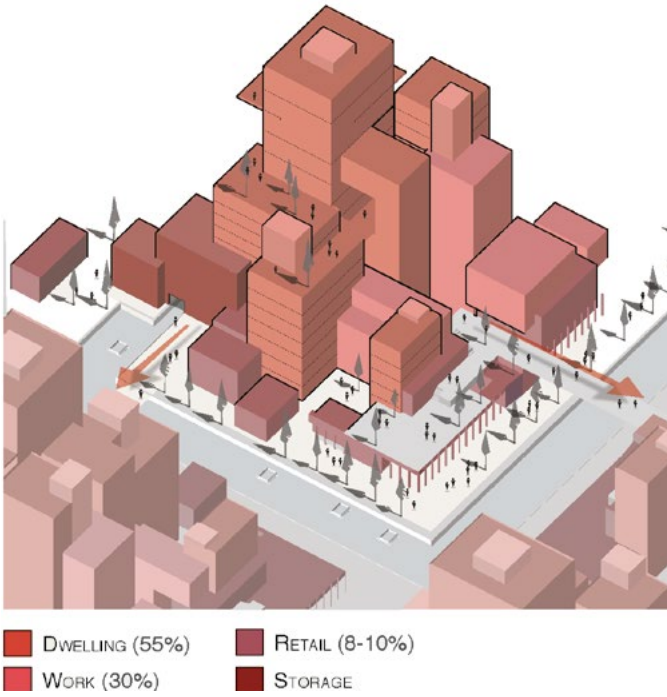
unique islands of identity, community, and amenities



section, plan and impression of the islands

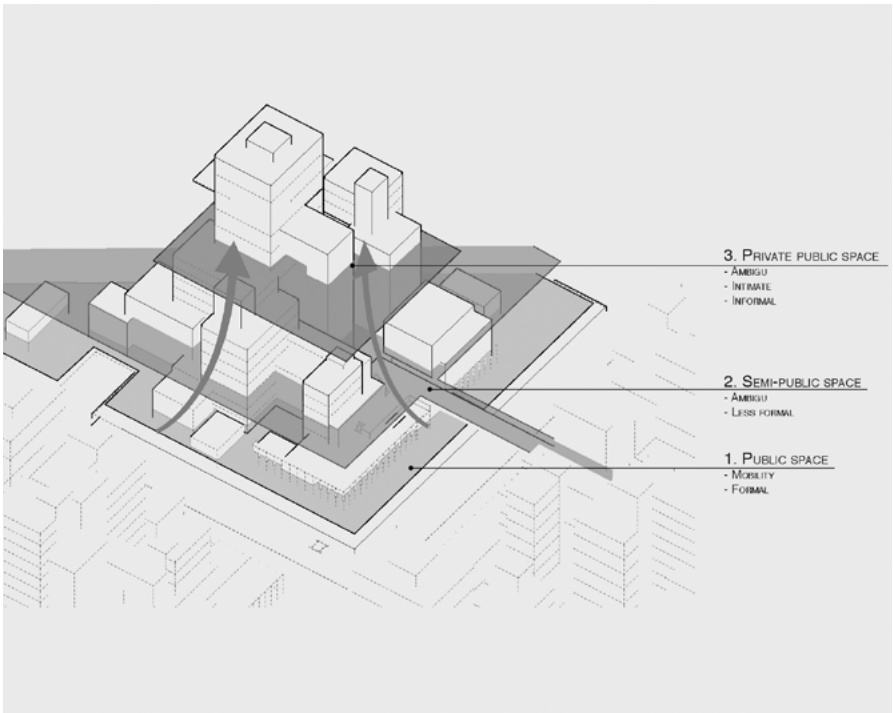


view of the semi-ublic space: ambigyu and less formal



functions of an island

public space gradually transforms from public to a more private domain



amsterdam

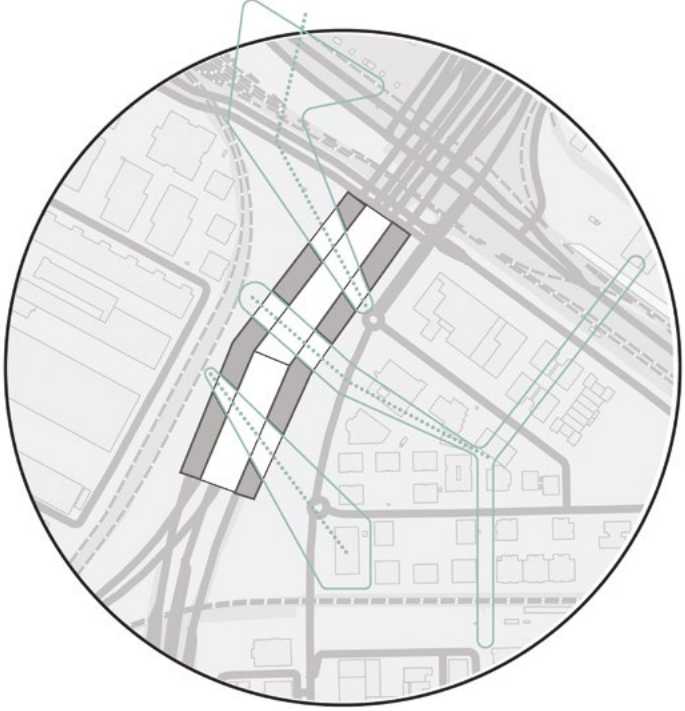
ZACH MELLAS
MESUT ULKÜ

THE AMSTERDAM HUB

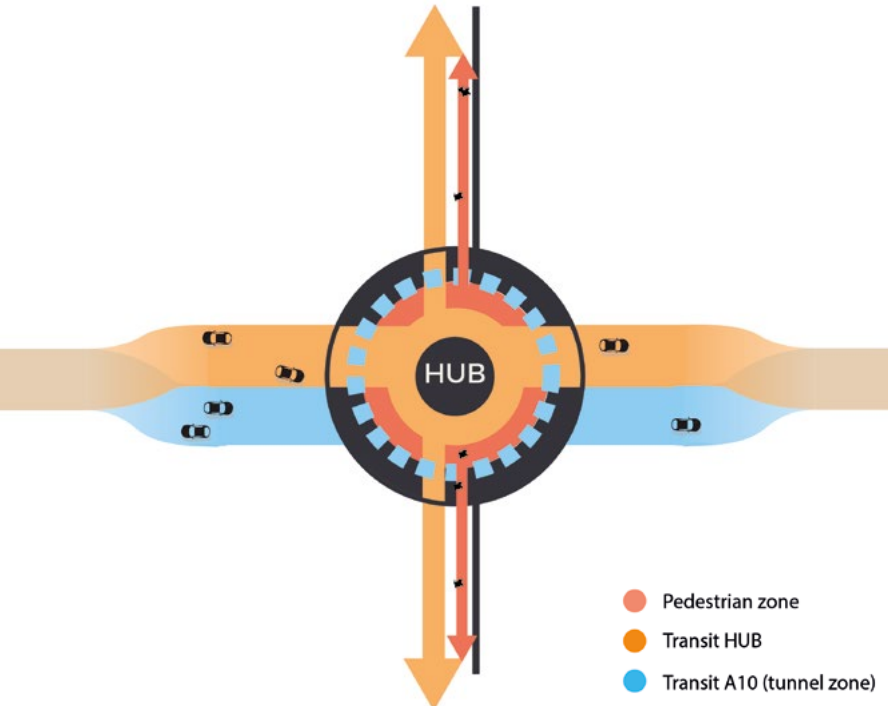
Work automation will eventually change our definition of the term ‘work’. Our society will have to be re-designed significantly to deal with the way in which automation will make a large amount of work obsolete, and we will have to redefine what human work looks like. The only way in which automation can function to people’s benefit is through a radical restructuring of day-to-day life: a 10-hour work week and a guaranteed universal basic income that is large enough to provide people with more than just a minimal existence. In this scenario, the meaning of leisure changes according to the redefinition of work – leading to more free time for personal pursuits and more generally a less rigid division work and leisure.

What hours you might spend working are a small part of your week in 2050, leading to less commutes and more general mobility and exploration. Taking into account the development of automated vehicles, public forms of transportation will likely become increasingly central in our lives.

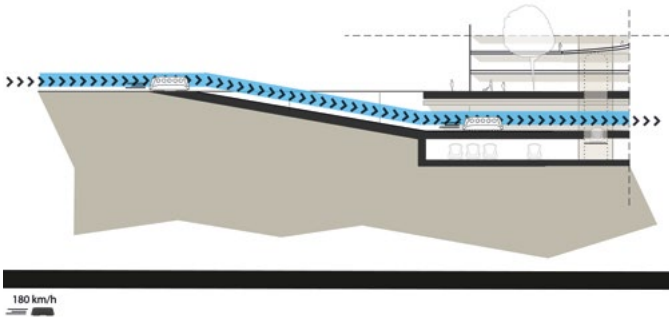
This project tries to posit a vision of a future where anyone in the city can go wherever they want, whenever they want to, and accordingly, a place where we share our spaces in total connectivity with our mechanic neighbors.

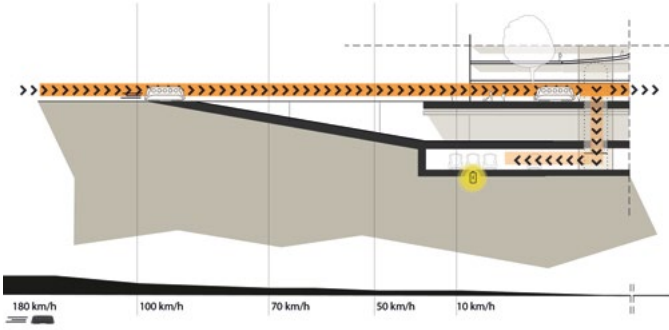


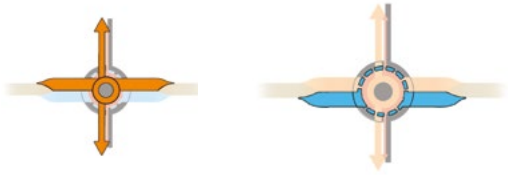
public connection to the site



highway transition diagram

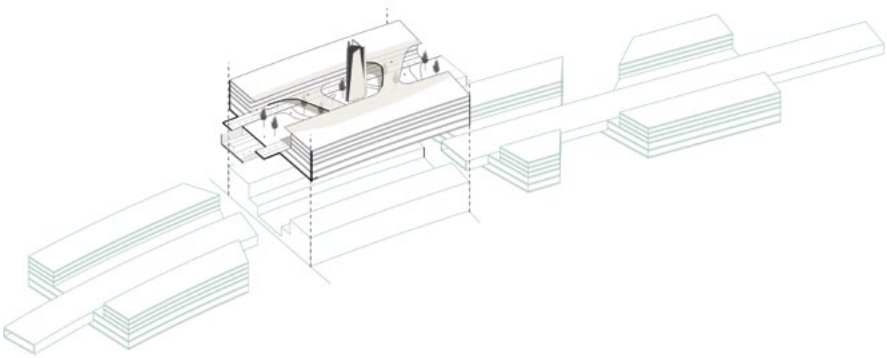


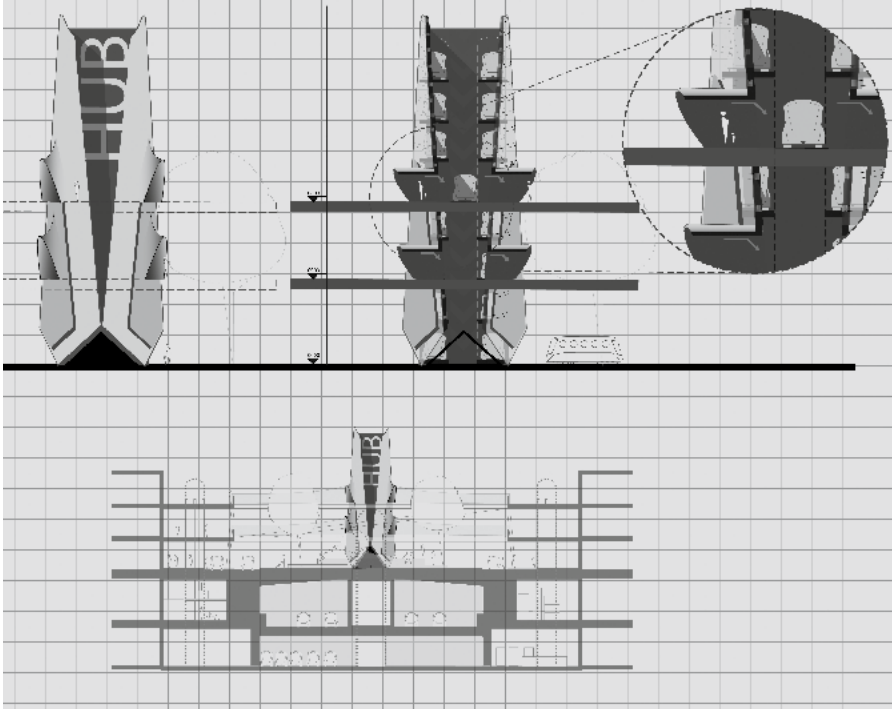




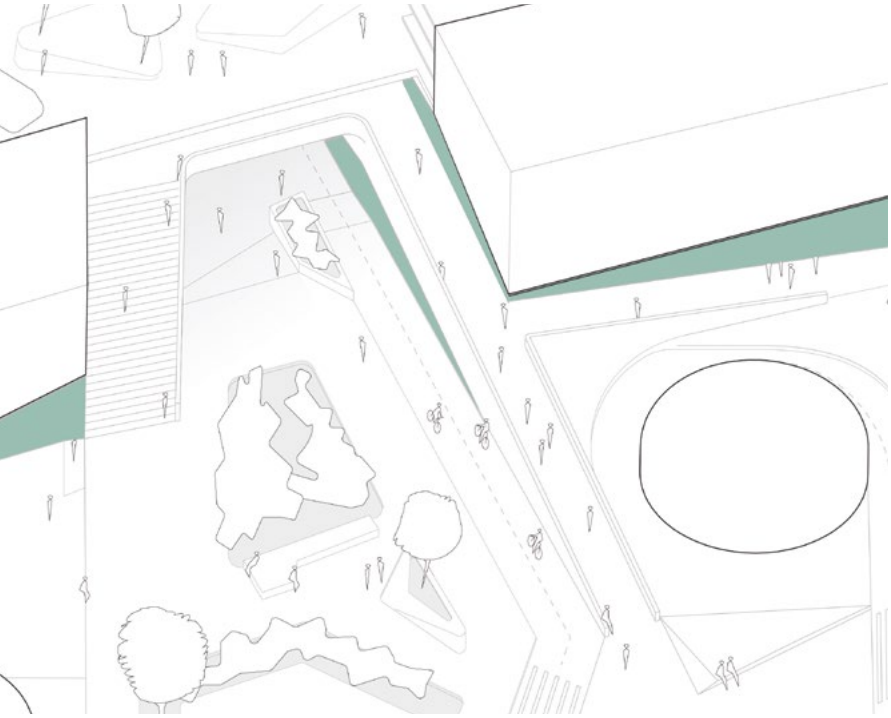
circulation of the Amsterdam Hub in section

the Amsterdam Hub in 2040





section through the Amsterdam Hub



impression of the pedestrian zone of the hub

view on the Amsterdam hub

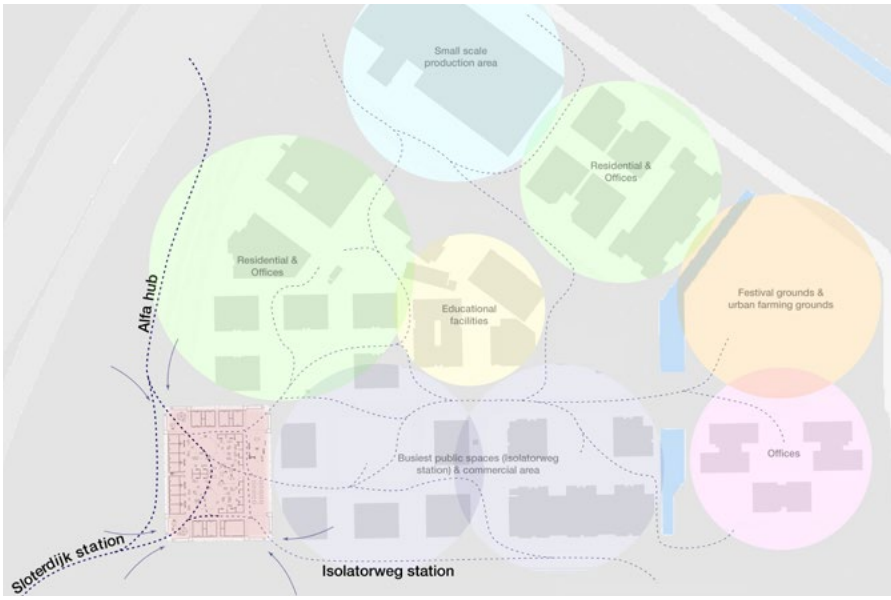
amsterdam

ELENA ROSSONI

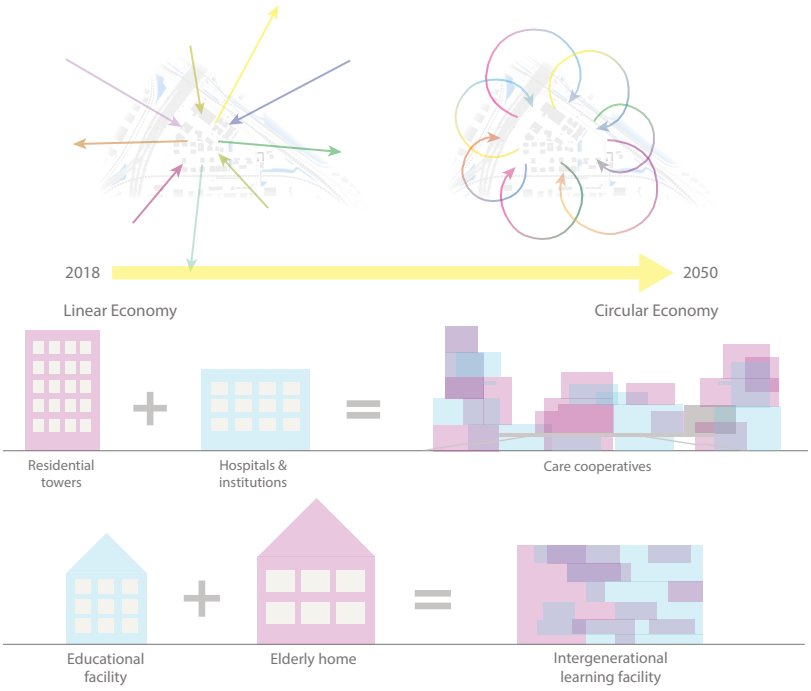
SHARED RESOURCES

In order to strive for a circular economy in the future, mere densification is not the answer. Resource efficiency must be achieved both on a spatial and sociological level. In this mix use block design, the ground floor acts as a public space designed to accommodate all types of travelers or residents. Local production units are put in display, allowing people to take part in the production process. On the higher semi private level, care cooperatives between elderly and young single adults take place, and a school / elderly day care allows for intergenerational interaction, benefiting both age groups.

This sharing of resources and services will not only stimulate a certain regional self-reliance and financial independence, but will also bring back a sense of place. Through this scheme, Alfa Driehoek acts as a test bed to experiment how citizens can be attached more to the community and the place when production is decentralized and people produce what they consume, while social interaction is encouraged through design.

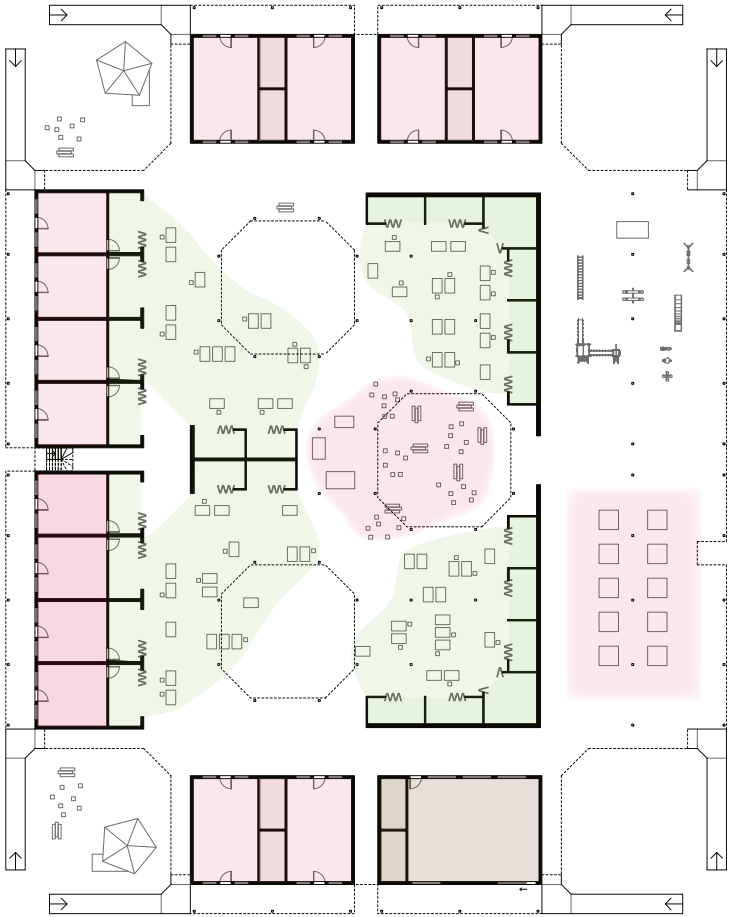


pedestrian flow from mixed-use block to the site



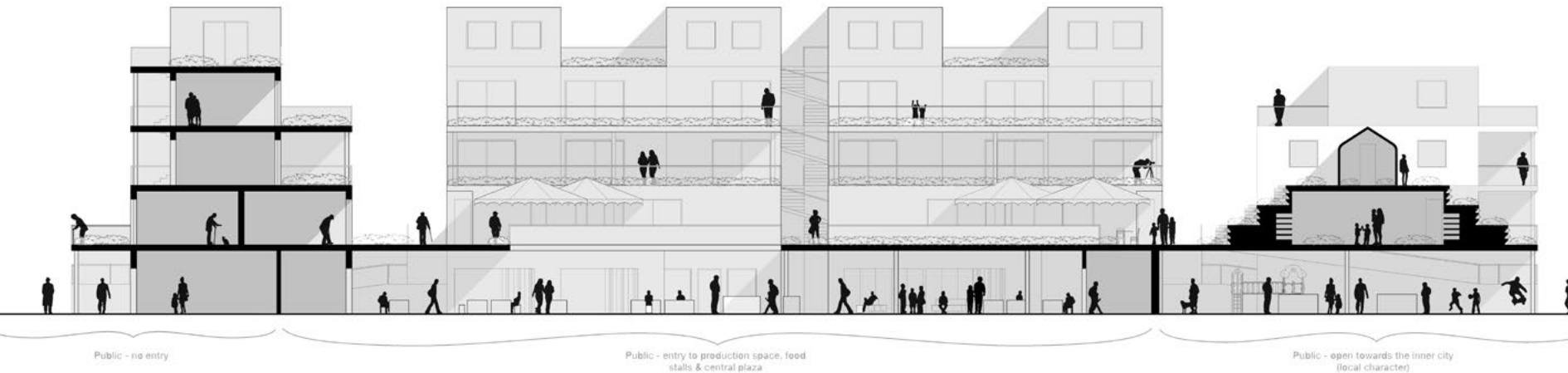
from a linear economy to a circular economy

ground floor and first floor plans

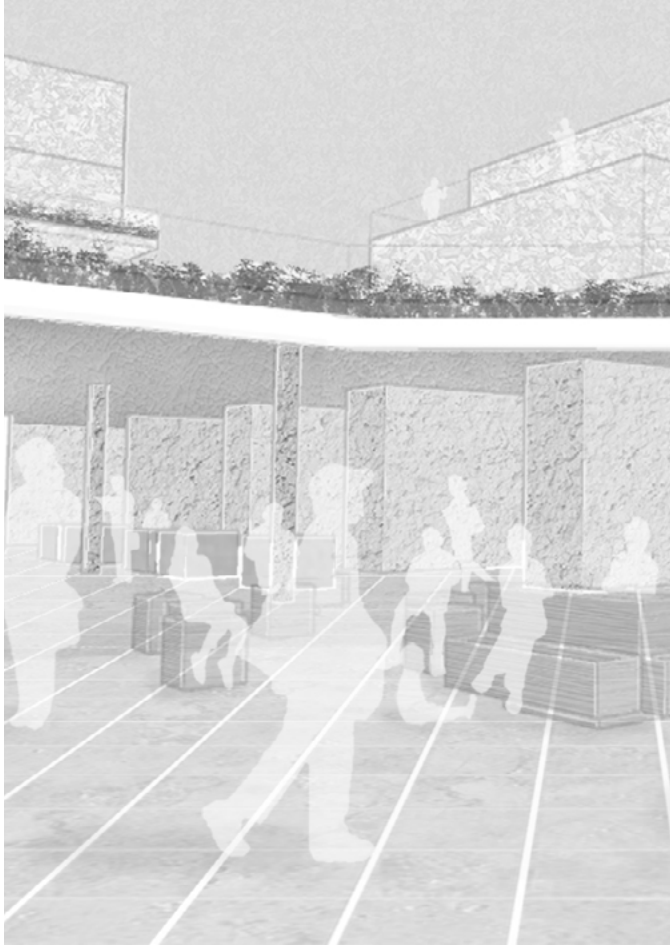


GROUND FLOOR
PLAN

FIRST FLOOR
PLAN

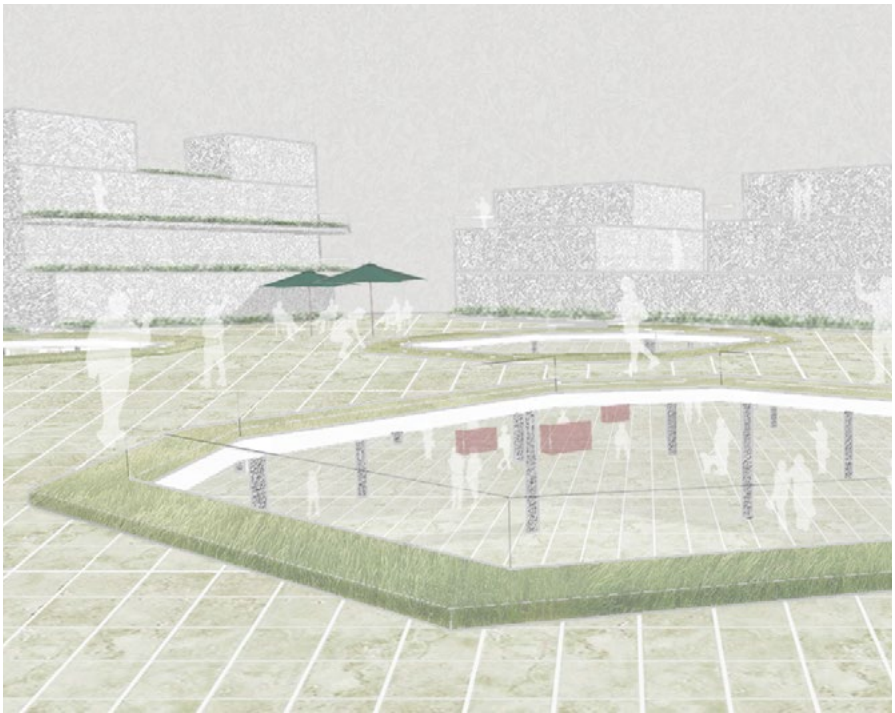

Public - no entry
Public - entry to production space, food stalls & central plaza
Public - open towards the inner city (local character)

section AA’



ground floor perspective

first floor perspective



design phase

DEN HAAG

den haag

INTRODUCTION

CENTRAL INNOVATION DISTRICT

The impact of the economic crisis on the employment opportunities is strongly noticeable in The Hague. Due to this, people with lower qualifications have to compete with an excess of middle educated people. At the same time, there is a constant increase of international organizations as a reaction on the strong international image as the city of justice and peace and the, as well grafted on that, university cluster.

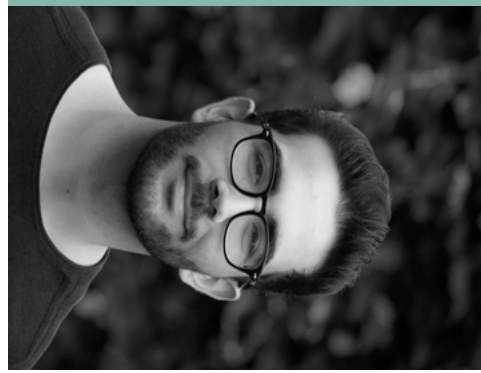
The metropolitan area *Rotterdam The Hague* prepared a so called 'Road map Next Economy'. A map that describes scenarios and business perspectives for the coming twenty to thirty years showing which projects and plans we need to respond to the global economic and technological developments. This collaboration increases the position within the international competition.

The Hague's accessibility is strongly single sided because of its sea side location. In order to accommodate accessibility growth, in the past this has resulted in many different projects. With increasing mobility demands, radical decisions need to be made. As the car dominates the city living quality decreases, while an increase of public transport can as well decrease quality of public spaces. The entrance of the city, being dominated by traffic, is under pressure. Besides the necessary accessibility demands and designing a pleasant public space, this entrance has to be designed with international allure.

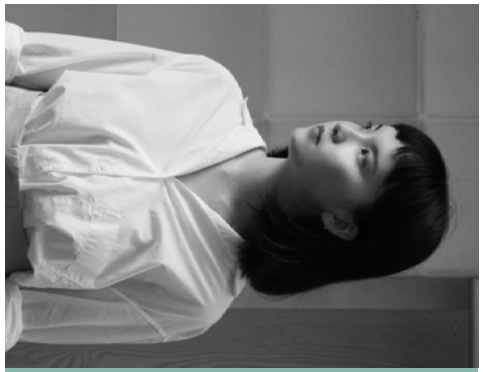
Yajie
SUN

Teun
KAKES

Achmed
ALI



Danyu
ZENG

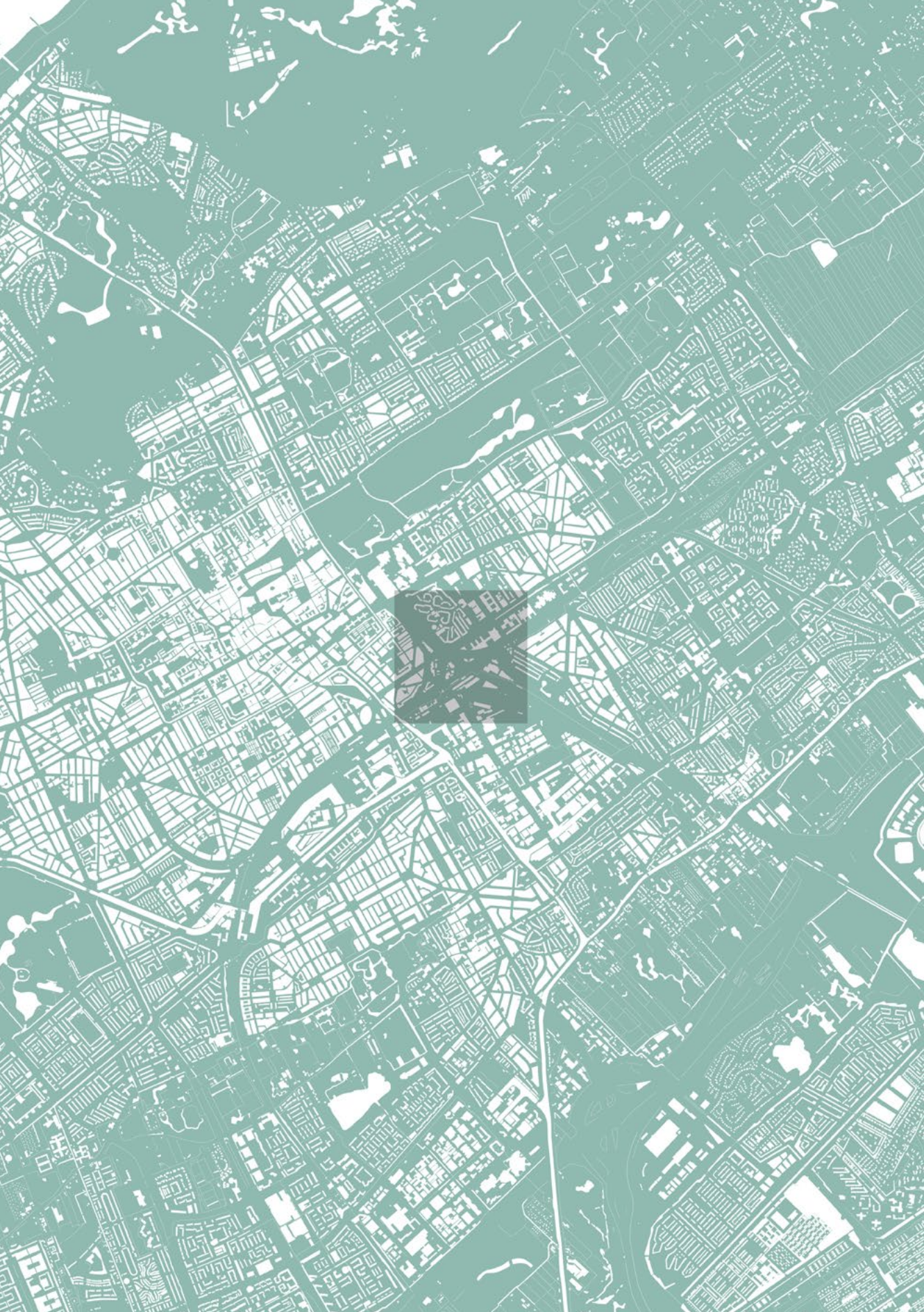


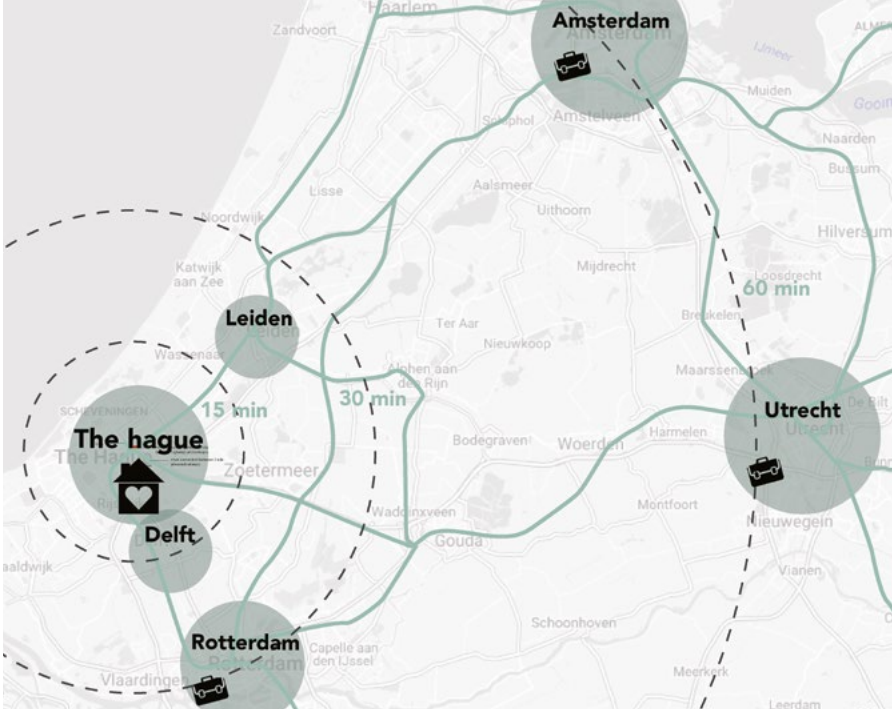
Jiameng
LI

Alice
CHEN

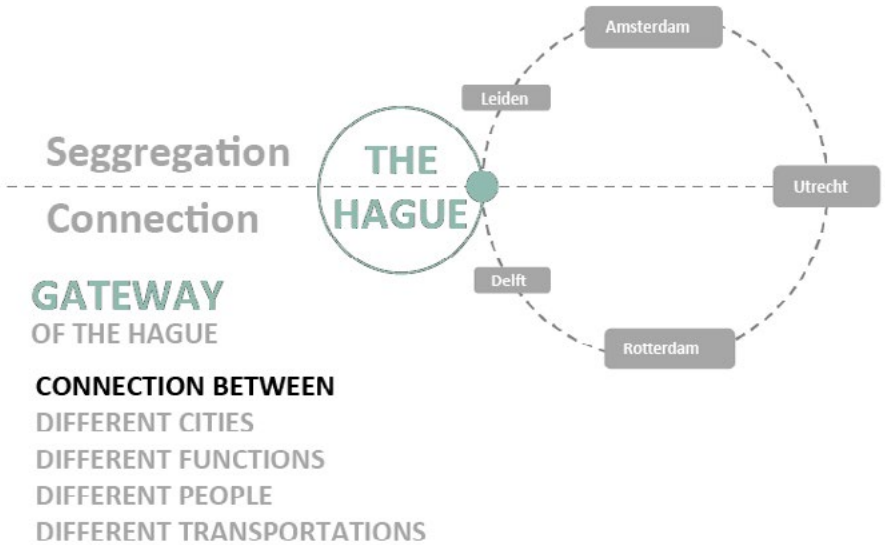
den haag

ANALYSIS





connectivity of Den Haag with the other cities by train



between segregation and connection

connection of Den Haag


AMS
Residential area
(local,higher
income)
Residential area
(local,lower income)
Residential area
(commuters)
UTR
ROT

1300 1400 1560 1620 1750

1230 Originated
Count Floris IV of Holland built a hunting residence alongside Hofvijver

1248 Extended
William II, King of the Romans extended the residence to a palace, "Binnenhof"

From 13th century Administrative Centre
The counts of Holland used Den Haag as their administrative center and residence when in Holland.

From 1588 remain the seat of government of the Dutch Republic.
In order for the administration to maintain control over city matters, Den Haag never received official city status

1806 city rights granted to Den Haag

1850 1874 1895 1909 1933

From 1850 Expanded quickly
government started to play a more prominent role in Dutch society, Den Haag expanded quickly. Many streets were specifically built for the large number of civil servants employed in the country's government and for the Dutchmen who were retiring from the administration of the Netherlands East Indies.

1923 Annexd Loosduinen
The growing city annexed the rural municipality of Loosduinen

1939 WWII
45,000 inhabitants moved out to make room for German coastal defences

1960-1985
Population shrank, suburbanization, renewal of the urban housing area

1999 onwards
Population increase, and projected to be an increasing trend by 2040
- ministries (moved out in 1970s) returned

1945 1966 1981 2002 2012

After World War Reconstruction
Den Haag became at one time the largest building site in Europe. The city expanded massively to the south-west, and the destroyed areas were quickly rebuilt.

1965
population peaked at 600,000 inhabitants.

1970s and 1980s
Middle-class moved out
Household composition changed. (1. Construction activity on the outskirts of cities induced young native Dutch families and prospective families to leave. 2. Den Haag lost many middle class households to Zoetermeer, Rijswijk and Voorburg)

1990s
Annexd neighboring towns
Den Haag annexed fairly large areas from neighboring towns

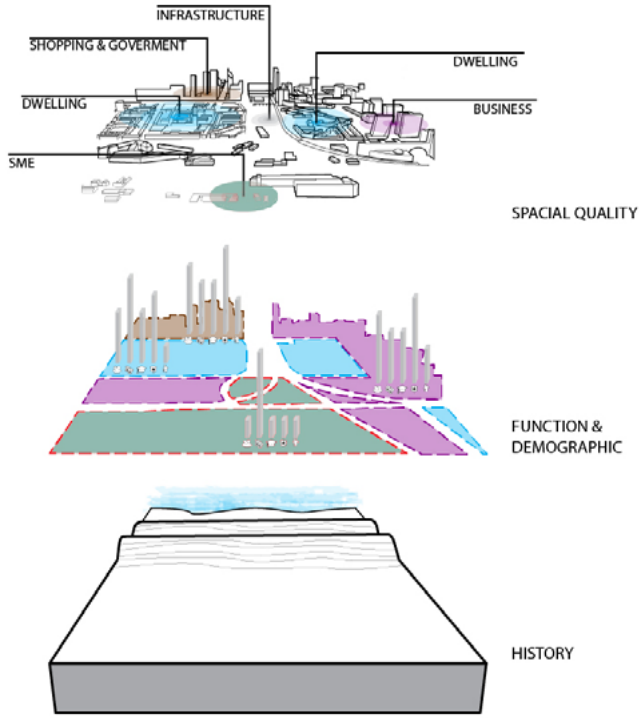
1st Policy shift:
'New town policy'
- New housing development in a number of greenfield locations in the proximity of existing cities, mostly in the Randstad , Faludi & Van der Valk, 1990
- Socio-spatial segregation increased, spatial concentrations of low income households, unemployment and ethnic minorities, Kruythoff and Priemus (2001)
-Relocation of ministries and governmental agencies to the adjacent municipalities of Rijswijk and Voorburg, and to some peripheral regions of the country
lost employment

2nd Policy shift
National policy
-The renewal of dilapidated 19th century urban housing areas
-Large neighborhoods within The Hague were completely demolished and rebuilt or renovated.

3rd Policy shift
- Increase international competitive position by strengthening its cities (Randstad)
- Compact city policies, prevent urban sprawl and growth of mobility, large housing at borders of the major cities

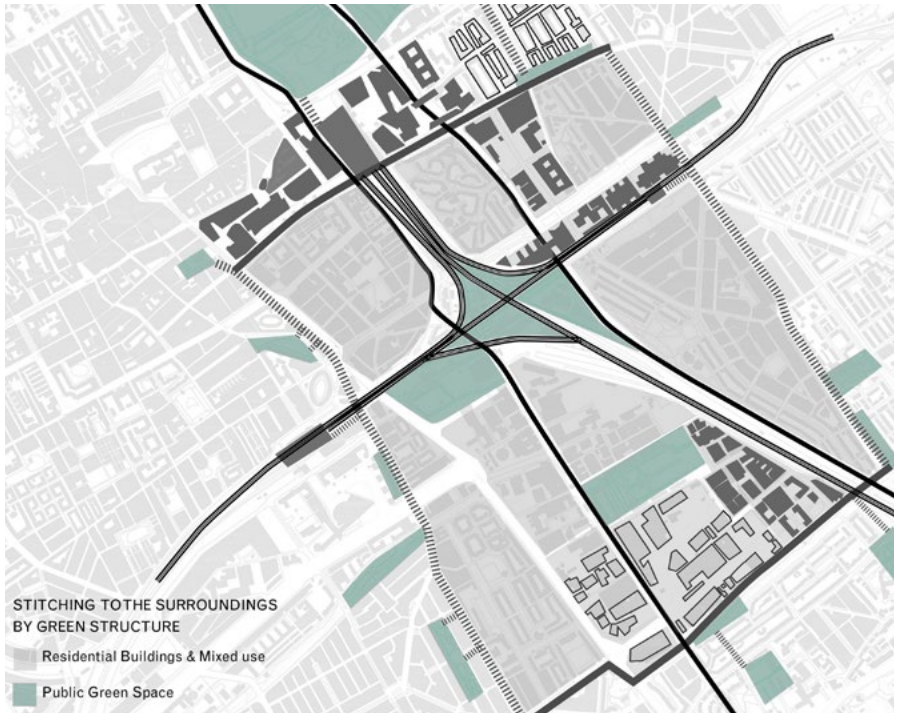
stitching with the communities by collective nodes and paths

the connecting elements can carry different functions



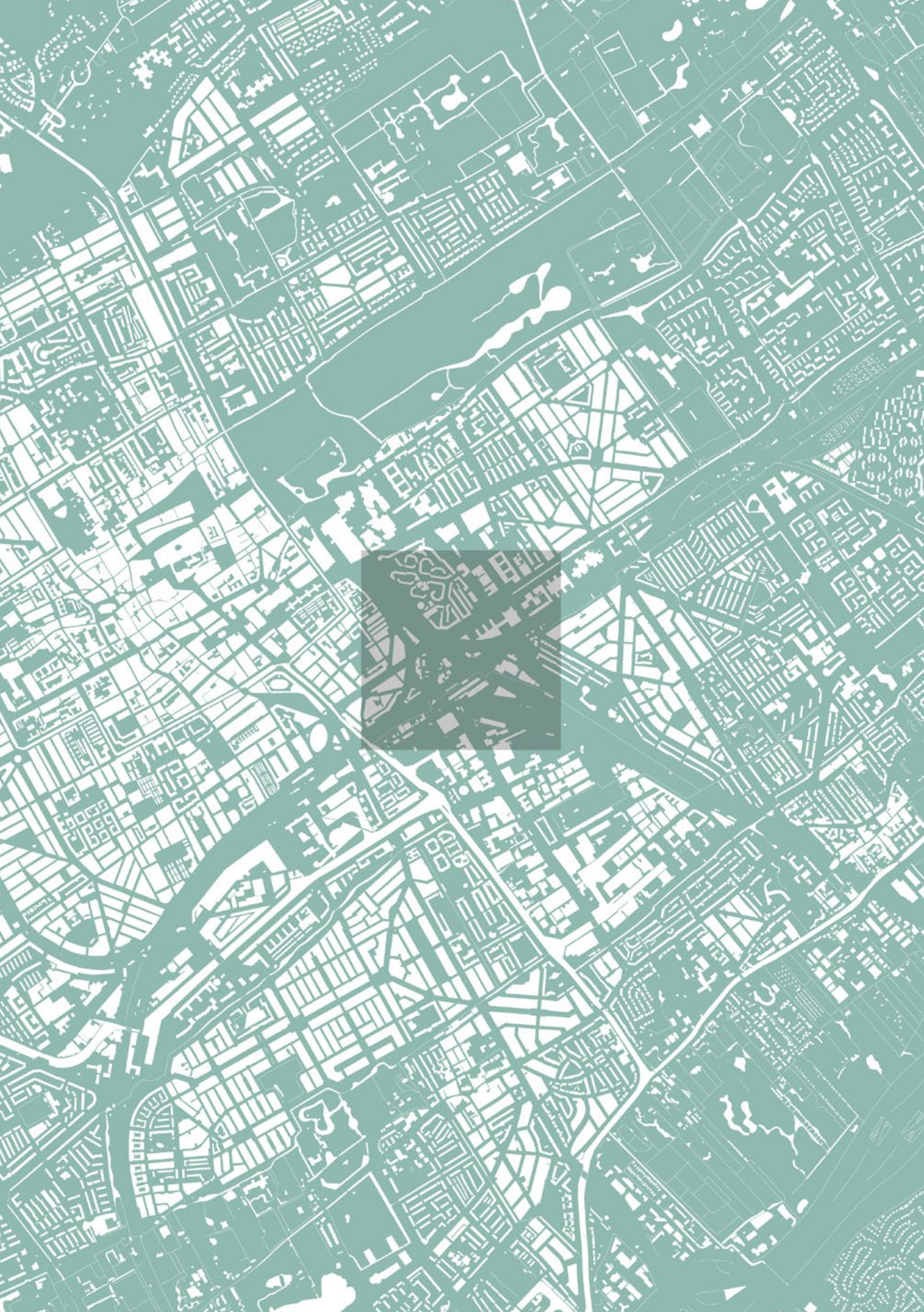
spatial quality, functions and history of the area

stitching to the surroundings by green structures



den haag

PERSONAL PROJECTS



den haag

ACHMED ALI
TEUN KAKES

THE URBAN LINK

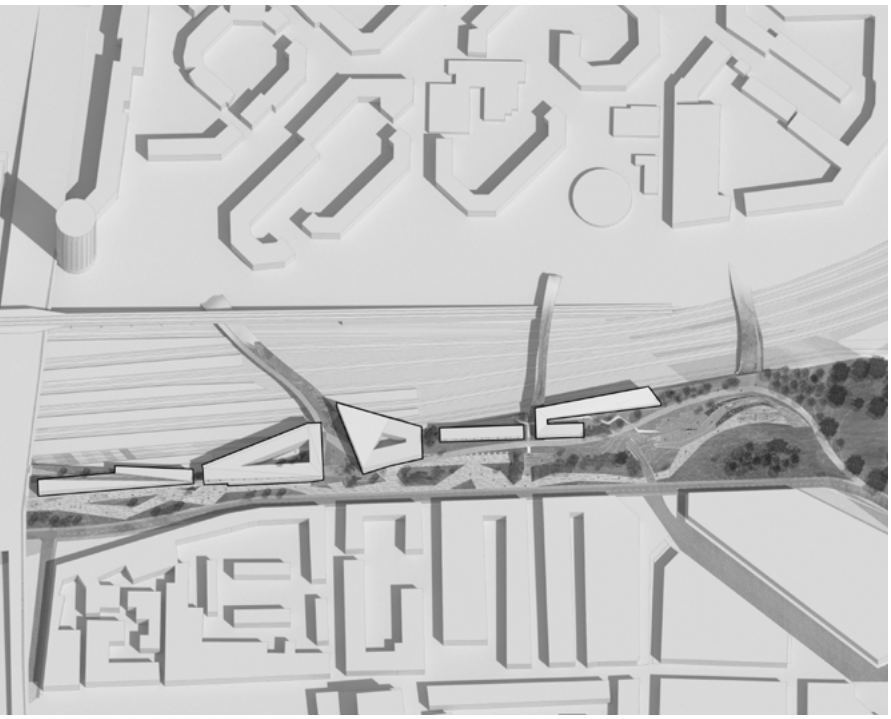
We called our project Urban link because we are aiming to link segregated parts together with an urban and architectural intervention. This way we provide the opportunities for different neighborhoods to connect. We link them by creating connections with interesting routing that combines functions and creates a new kind of hybrid building and a new type of street.

In the current situation the area is dominated by the infrastructure. The biggest obstruction is the train track. We see a potential in linking these isolated parts together and this way connecting it spatially but also on different scales for example different functions layered in public space.

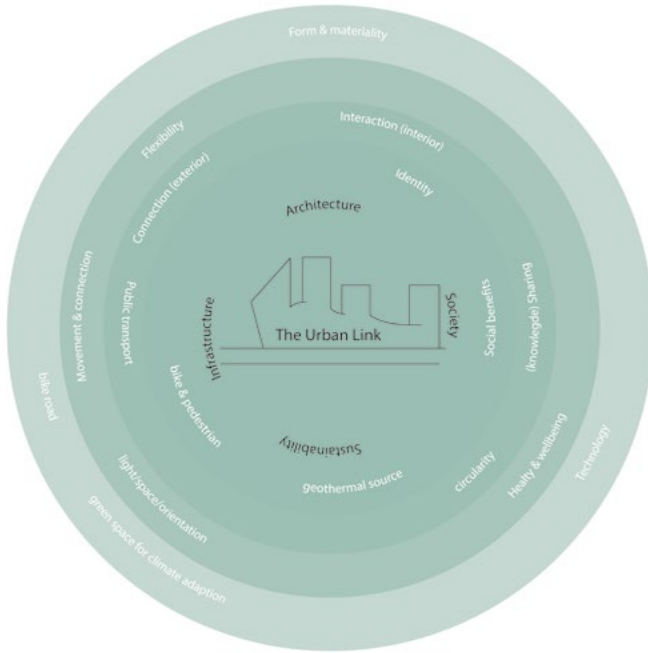
We identified different kind of streets with different character and we see that these ‘identities’ can be linked. We categorized these streets by infrastructure and intimacy. Furthermore here is also a potential the link the central station to the new development that is happening at the Binckhorst site.

Next to linking the different islands together we also see the government is making a new connection between the Lekstraat and the highway. This will cause for a heavy traffic on the Lekstraat which will than all have to go down into a tunnel by one lane. This will cause for only more segregation. Our proposal is to bring this new connection underground and this way creating new valuable ground that can be sold to stakeholders for new urban development. This creates space for densification and opportunity to create improved public spaces.

By building bridges between the similar identities on the two different sides of the train track we bring them together in a physical way. We also want to make new type of street that gradually transforms into a park to attract people from the station to the new development.

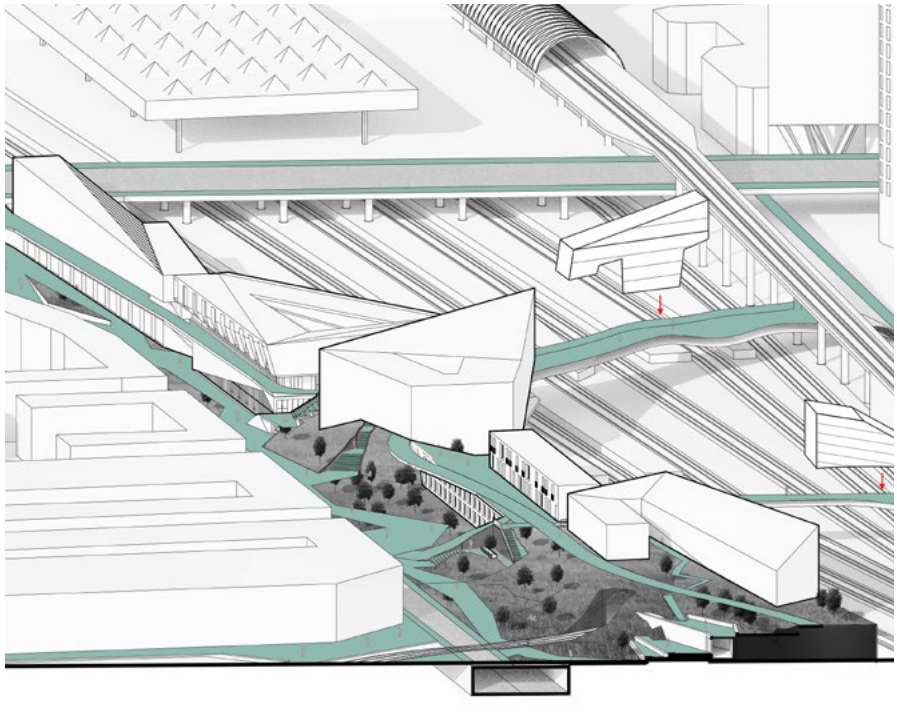


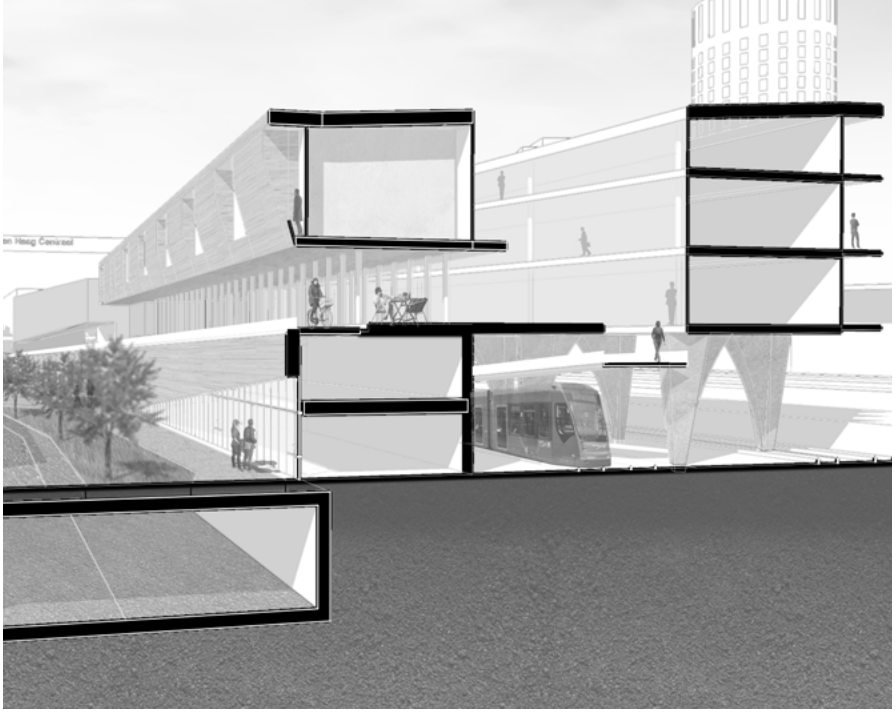
top view of the urban link



approach of the urban link

infrastructure of the urban link

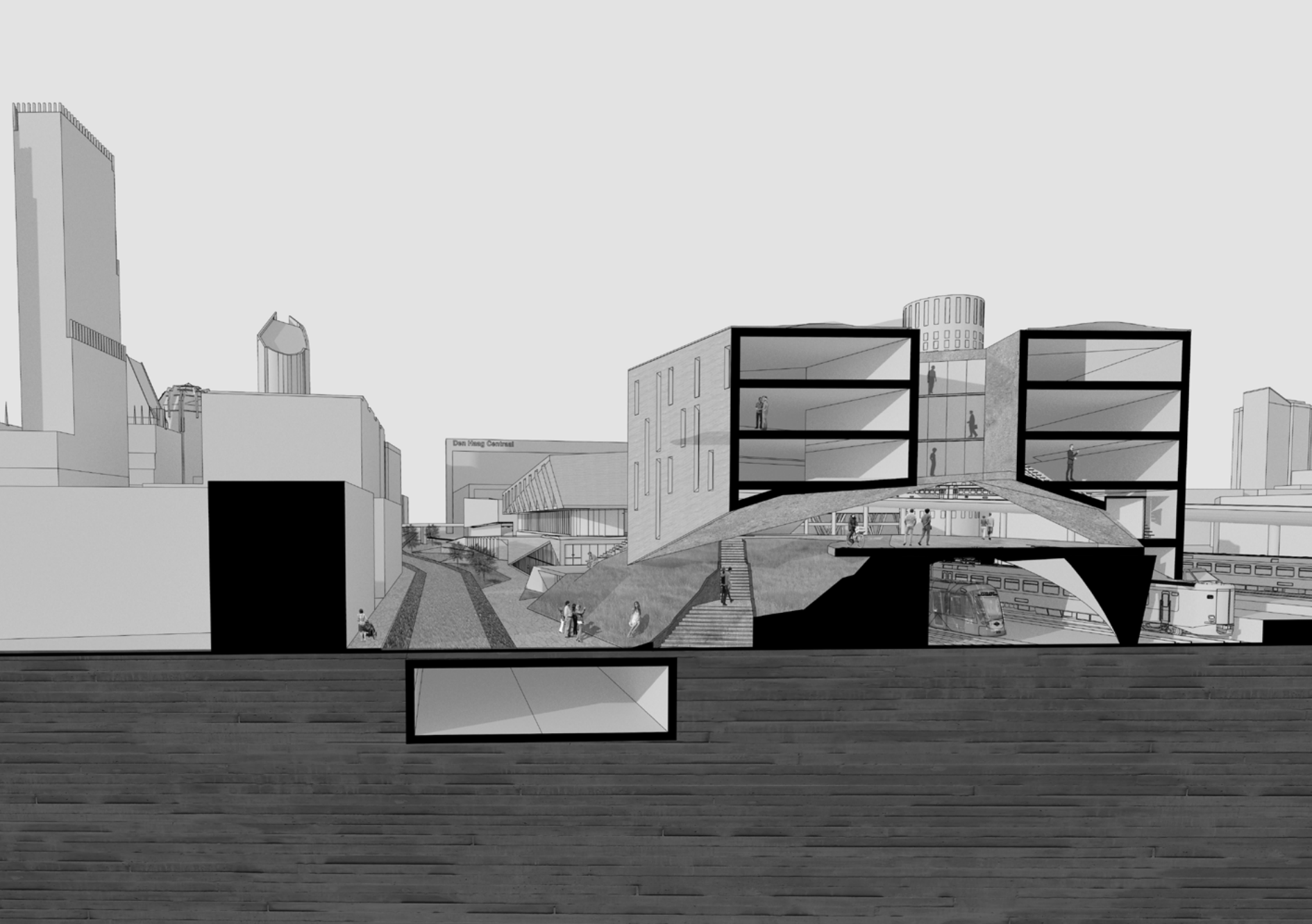




section of the block

perspective

section of the pubic space


Dan Hang Centrest

den haag

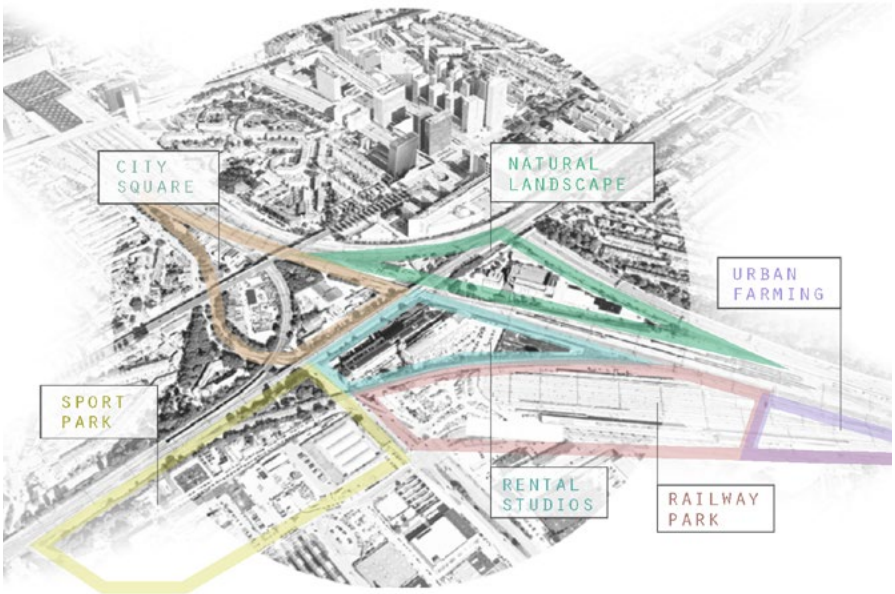
ALICE CHEN
YAJIE SUN

STITCH THE FABRICS

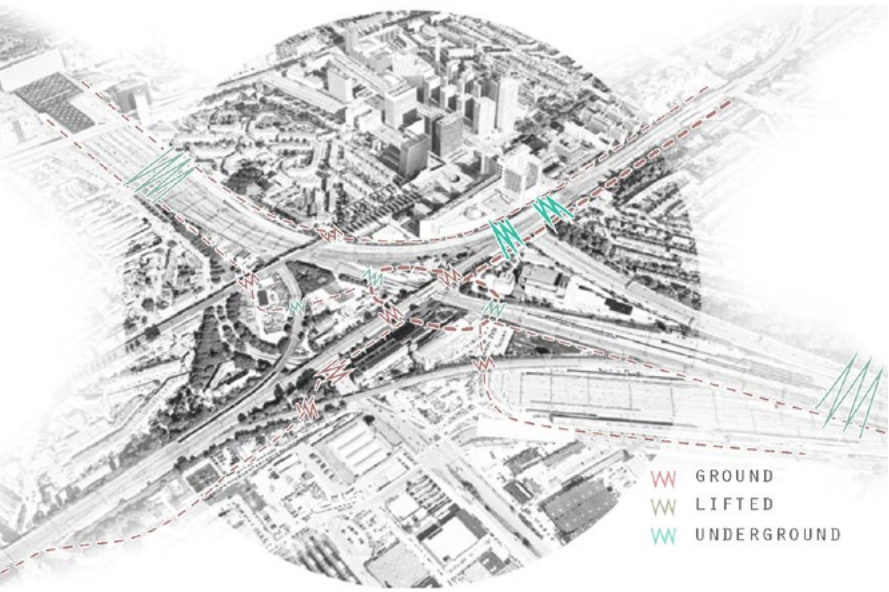
“Create a segregated but connected green wonderland in the city”.

Started from the characteristic of this site “segregation”, we discussed segregation shouldn’t be a complete negative term especially
in this diverse location – between commercial and residential area.

However, to create a better connection is still
necessary not only for this site but also for
the green system in The Hague. Therefore, we decided to use the advantage of this segregation for different functions but connect them together as a complete but diverse park.



keep and soften the boundaries between different functions



connect the segregated areas of the site

masterplan stitch the fabrics

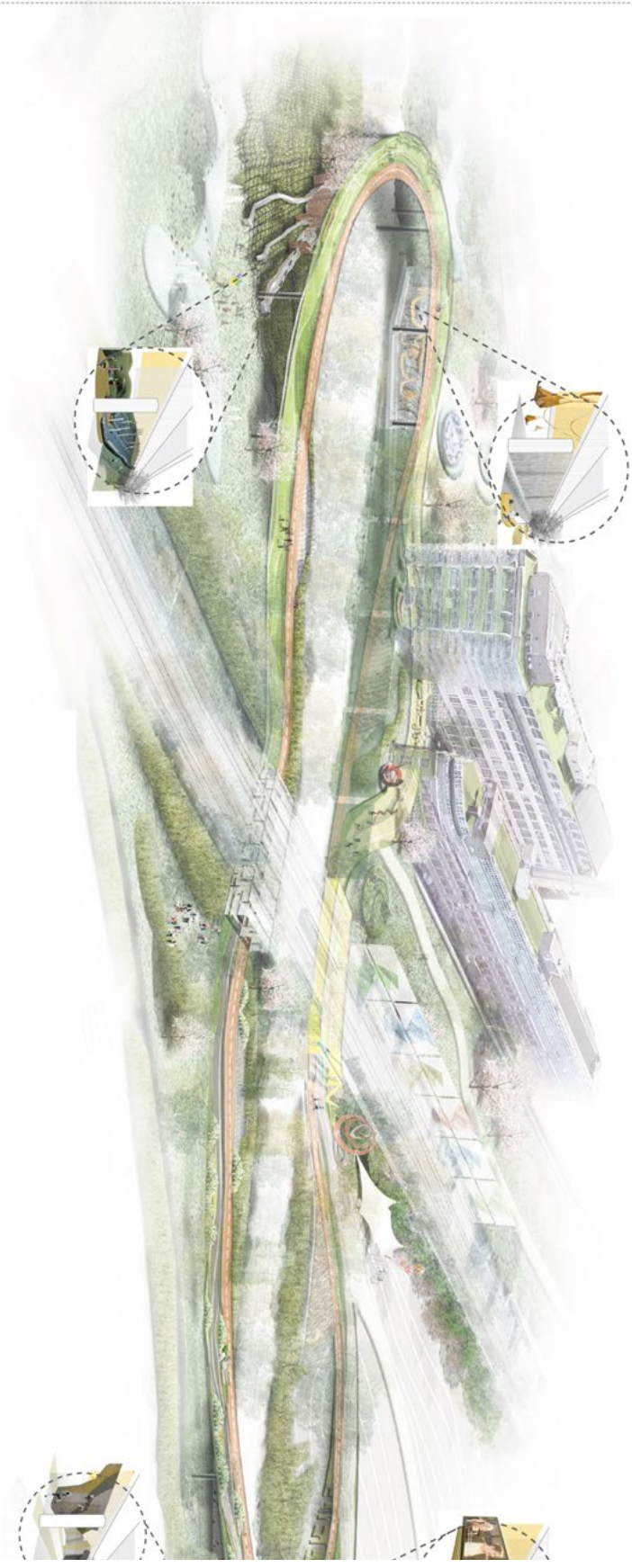
1
RAILWAY PARK

2
SPORT PARK

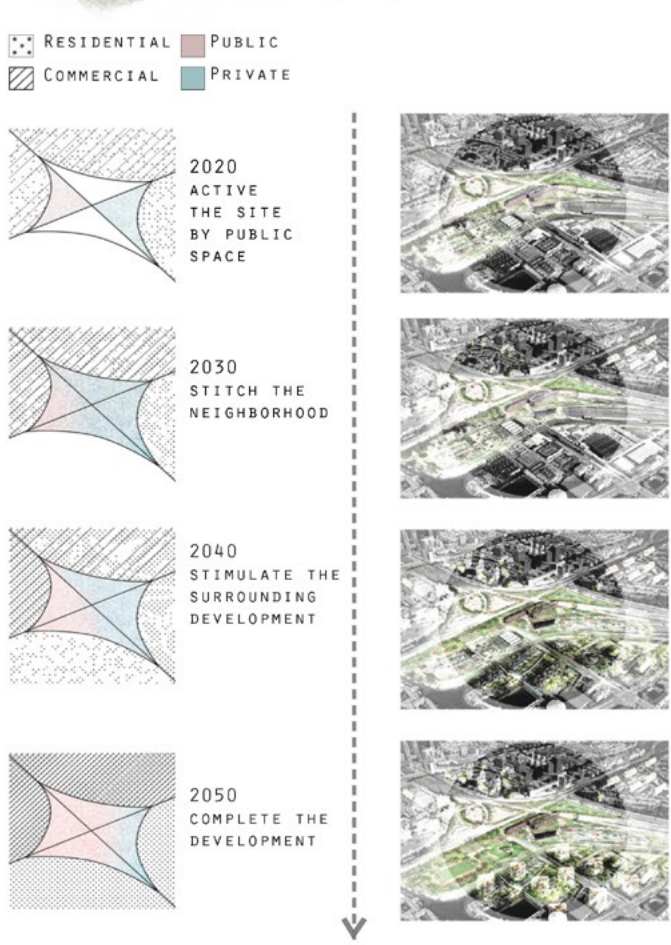
3
NATURAL LANDSCAPE

4
URBAN FARMING

5
RENTAL STUDIOS



close-up on the ring



time sequence of the development

aerial view

den haag

JIAMENG LI
DANYU ZENG

THE HAGUE VENUE

Base on the CID's identity of 'space for urban living', there is a scope for densification, transformation of existing buildings, intensification through multifunctional use of space and restructuring. In connection with this, the city of The Hague will also benefit by developing a system of good outdoor space and (public) meeting places.

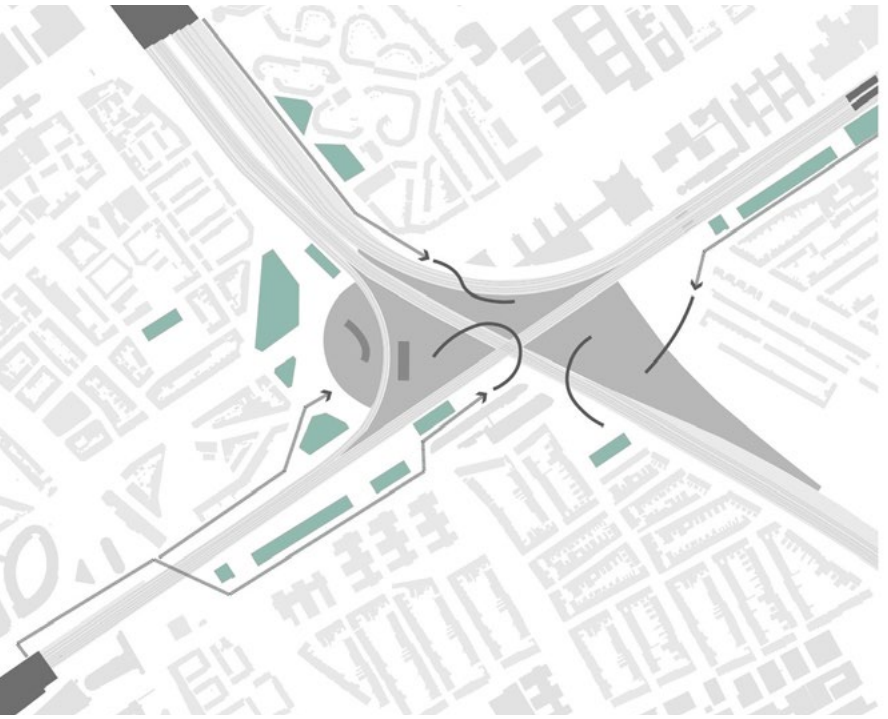
The Hague Venue project introduces an evolutionary way of making a city. By creating and regenerating 'venues' in-between the neighborhoods, the city's leftover space becomes a curator attracting activities to happen.

In the first phase of 2018–2025, along with the development of new area, the project focuses on existing communities in the city. The 'community venue' is being regenerated by inserting retail, community services, as well as urban farming – which assembles the neighbors by introducing communal participation.

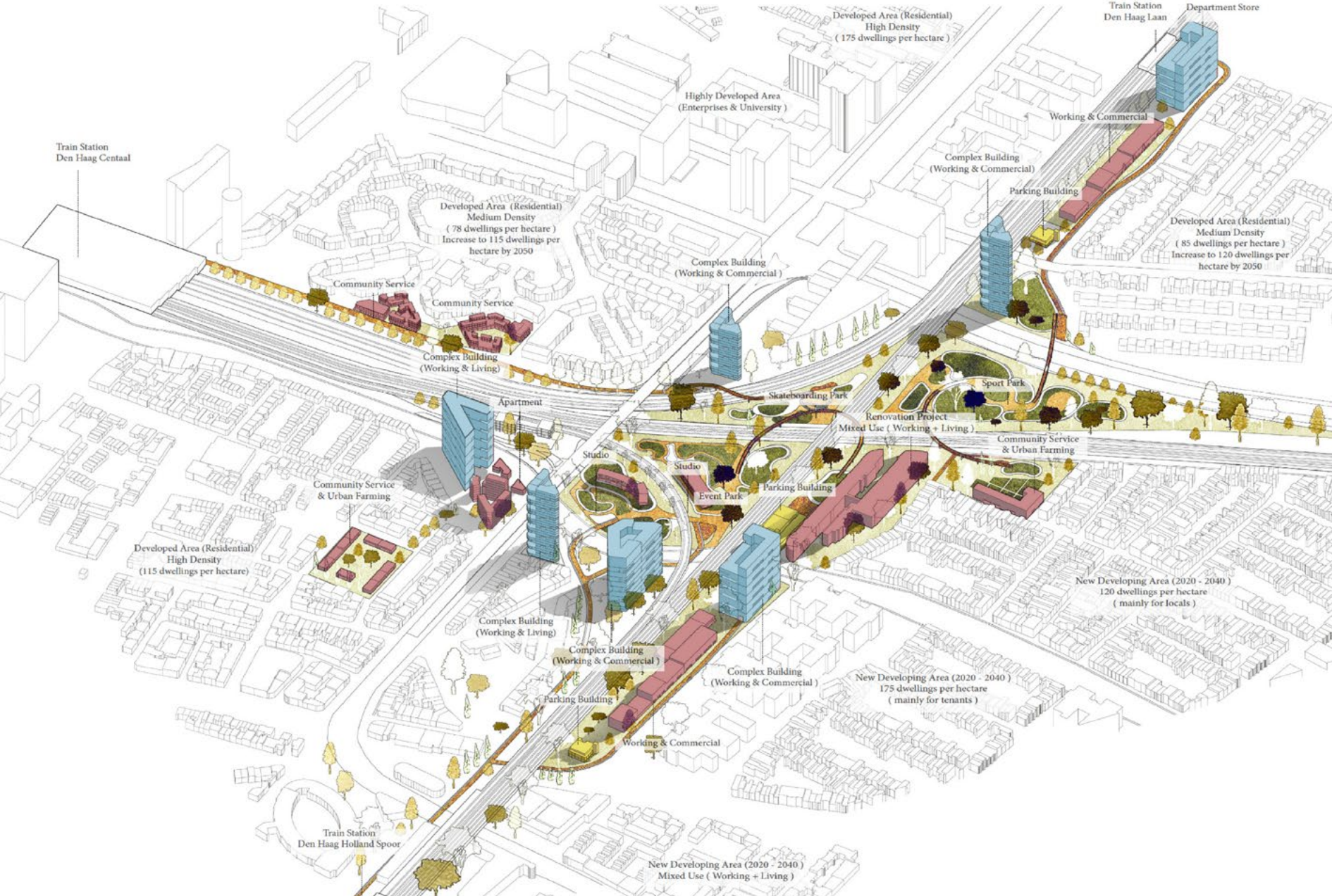
The next phase of 2025–2030 comes to the development of 'The Hague Venue' project, which includes the skateboarding park, sports park, the event park with studios inside. The lifted bridges are built to link the 'Community Venue' with 'The Hague Venue', inviting neighborhoods to meet in its center.
From 2030–2040, new paths link the train stations to 'The Hague Venue Park'. Therefore, the increasing value of the central park gives it potential for events and bigger scale

activities such as exhibitions, open theater, pop-up stalls and festivals. The park gains a new type of identity.

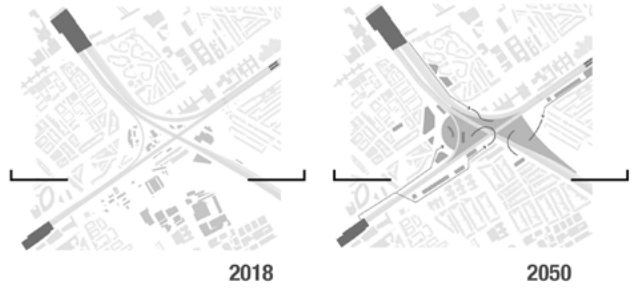
The final phase of 2040–2050, more complex projects are implemented around the central park and along the paths. These are integrations of mixed/used buildings and urban renewal projects.

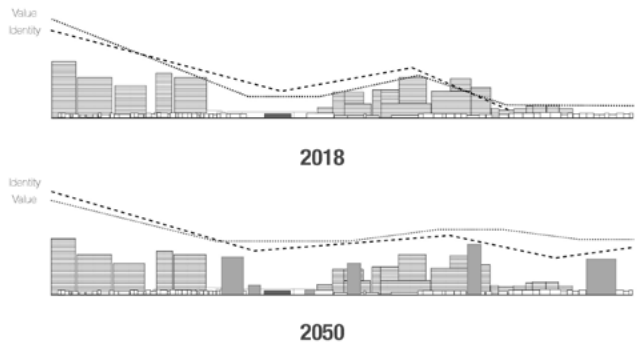


develop central park as City Venue: assembling communities


Train Station
Den Haag Centaal
Developed Area (Residential)
High Density
(175 dwellings per hectare)
Train Station
Den Haag Laan
Department Store
Highly Developed Area
(Enterprises & University)
Working & Commercial
Complex Building
(Working & Commercial)
Parking Building
Developed Area (Residential)
Medium Density
(78 dwellings per hectare)
Increase to 115 dwellings per
hectare by 2050
Developed Area (Residential)
Medium Density
(85 dwellings per hectare)
Increase to 120 dwellings per
hectare by 2050
Community Service
Community Service
Complex Building
(Working & Commercial)
Complex Building
(Working & Living)
Apartment
Skateboarding Park
Sport Park
Renovation Project
Mixed Use (Working + Living)
Community Service
& Urban Farming
Studio
Studio
Event Park
Parking Building
Community Service
& Urban Farming
Developed Area (Residential)
High Density
(115 dwellings per hectare)
New Developing Area (2020 - 2040)
120 dwellings per hectare
(mainly for locals)
Complex Building
(Working & Living)
Complex Building
(Working & Commercial)
Complex Building
(Working & Commercial)
New Developing Area (2020 - 2040)
175 dwellings per hectare
(mainly for tenants)
Parking Building
Working & Commercial
Train Station
Den Haag Holland Spoor
New Developing Area (2020 - 2040)
Mixed Use (Working + Living)

zoom-in masterplan





value and identity through time

perspective on the urban farming program for commercial activities

design phase

EINDHOVEN

eindhoven

INTRODUCTION

FELLENOORD

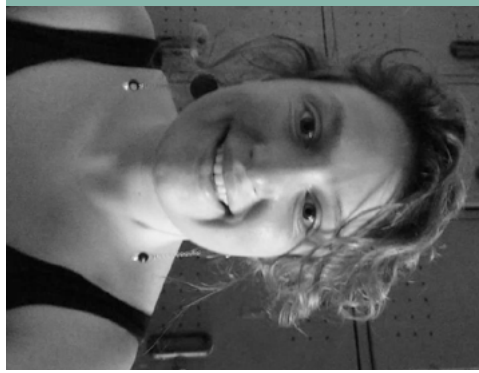
Eindhoven makes, besides its economic and technical developments, big steps in terms of urbanization. Knowledge, technology and design are Eindhoven's main identities. The developments consist of a densification program concerning living, working and other functions. In terms of culture, Eindhoven has a big task in order to gain and keep talent within a high pace and lively climate. Todays questions are: how can a city answer the demands of all institutes and companies? How can we accommodate them and how can we welcome new studying and working talent? How do you localize the global and how do you globalize the local?

In order to bring Eindhoven to a next level and to answer the demand of companies and institutes it is important to invest in talent. This means that accessibility and facilities need to be improved in order to make the city more attractive. Therefore one of the plans Eindhoven is taking into account 'kwaliteiten van de kleine stad' by Kees Christiaanse. Is Eindhoven a city for multiple campuses, educational and commercial? Or is the whole city considered to be a campus? Or can we see the city as an archipelago with campus islands?

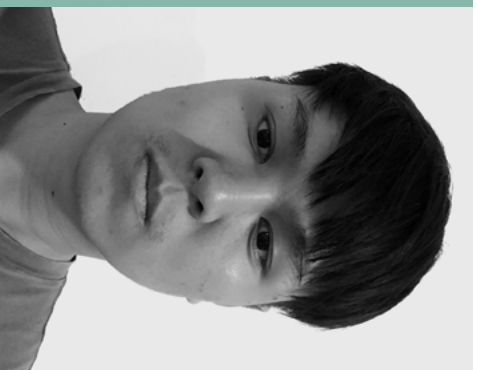
Li
TAN

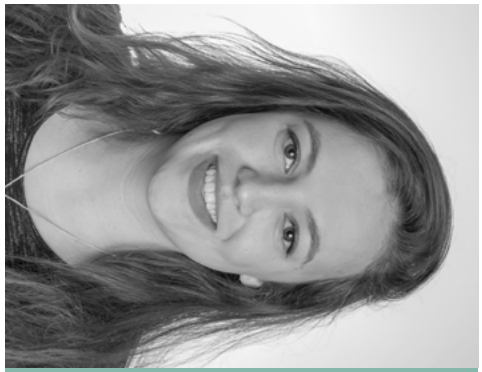
Cai
HUANG

Ilse
DE JONG



Krit
THIENVUTICHAI



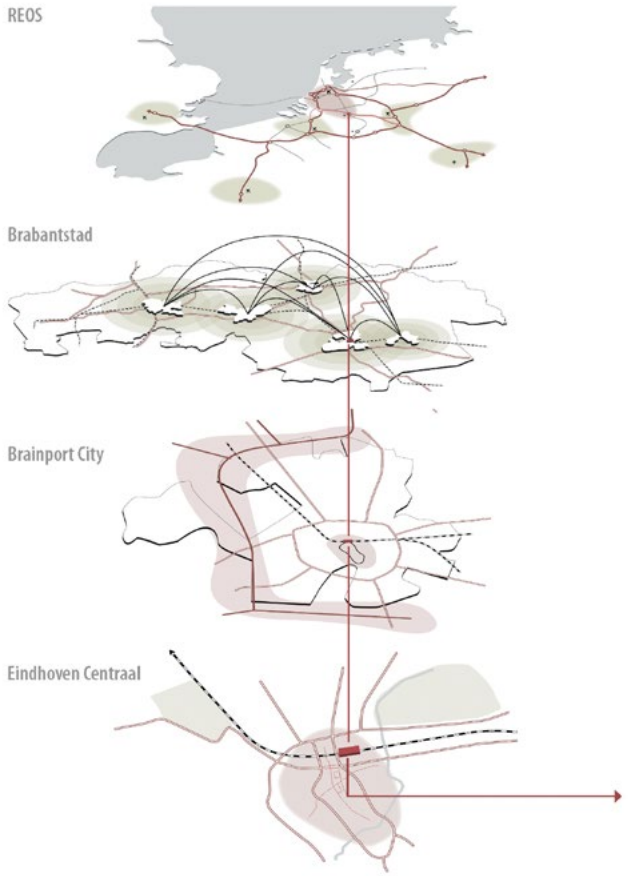


Linde
JORRITSMA

Daphne
HOMAN

eindhoven

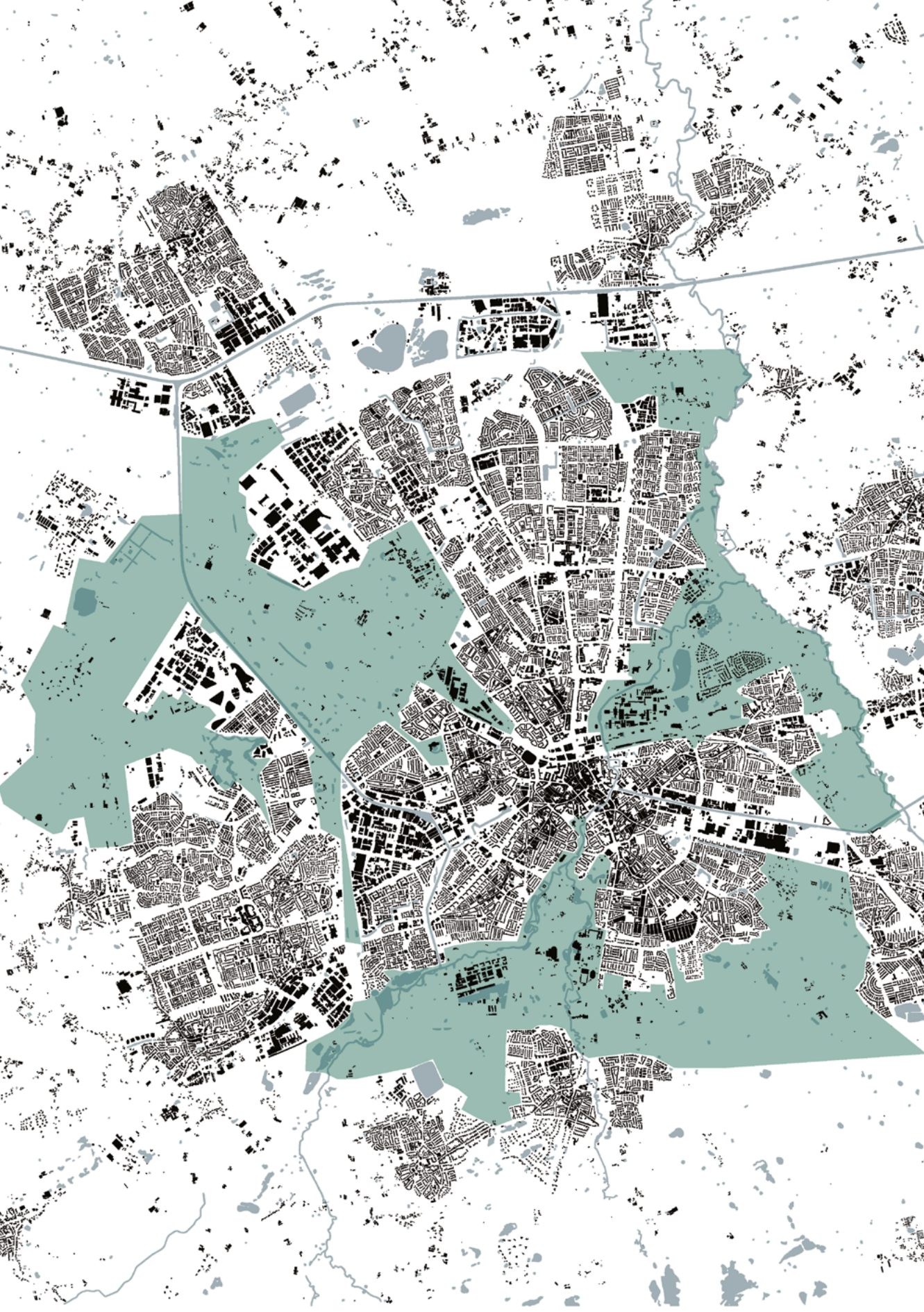
ANALYSIS

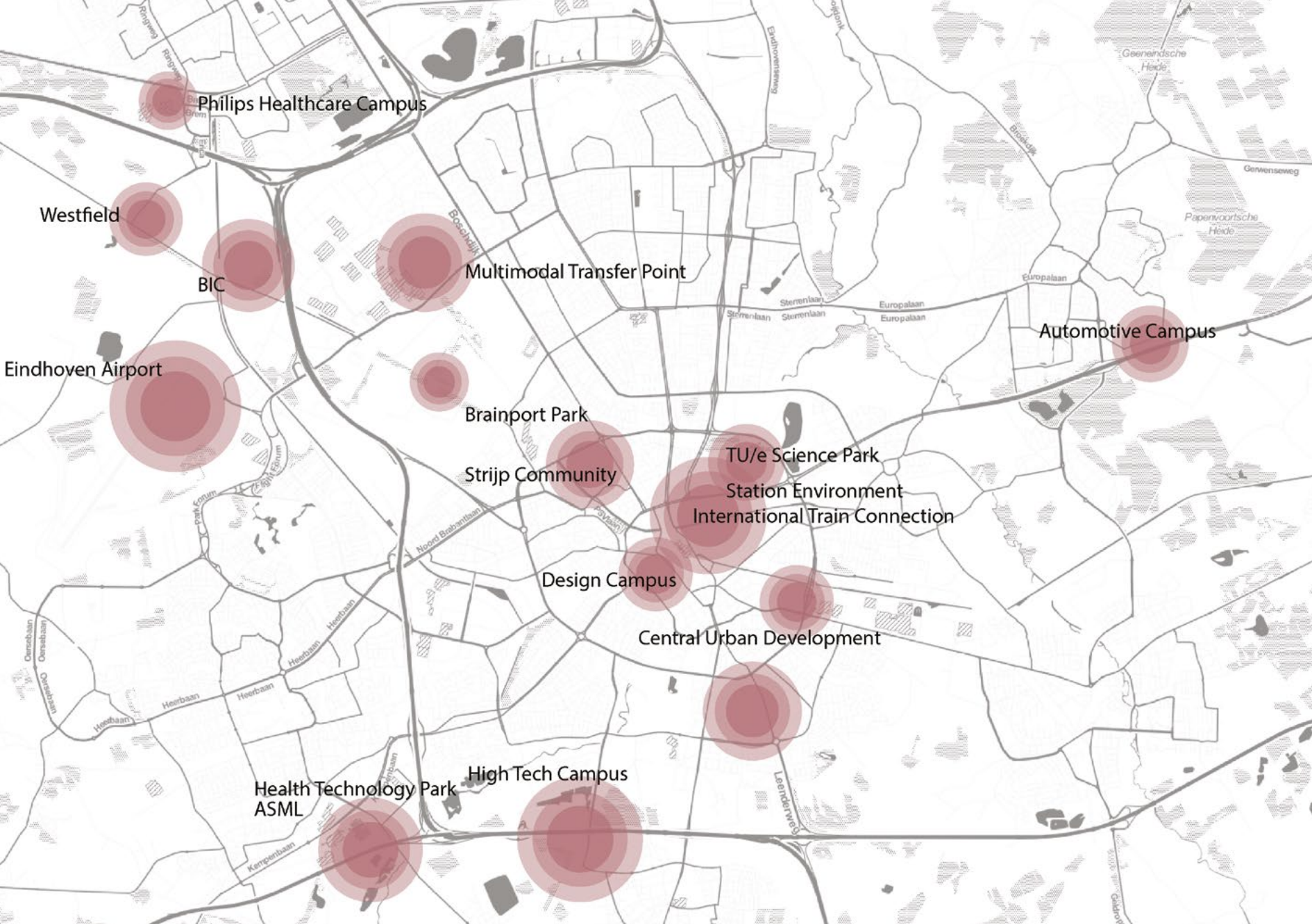


the international node through the different scales

Eindhoven before and after 1920: the annexation

water and green analysis in the city of Eindhoven




Philips Healthcare Campus
Westfield
BIC
Multimodal Transfer Point
Eindhoven Airport
Automotive Campus
Brainport Park
Strijp Community
TU/e Science Park
Station Environment
International Train Connection
Design Campus
Central Urban Development
High Tech Campus
Health Technology Park
ASML
Ringweg
Boseikdijk
Eindhovenseweg
Geenendsche Heide
Gerwenseweg
Papenvoortsche Heide
Sterrenlaan
Europalaan
Park Forum
Noord Brabantlaan
Heerbaan
Oerlebaan
Kempenbaan
Leenderweg

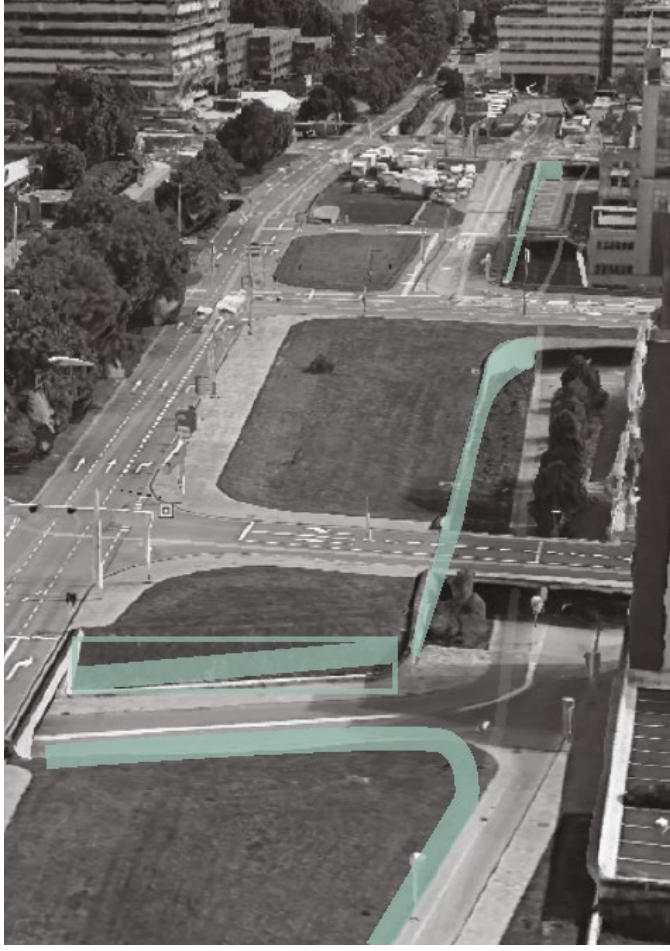
Brainport related areas

bus lines connecting the airport, centre and railway station

pedestrian fragmentation of the different areas around the railway

functions of the surrounding areas

flooding risks in Eindhoven



urban obstructions on the site

urban fragmentation of the site

eindhoven

personal projects

eindhoven

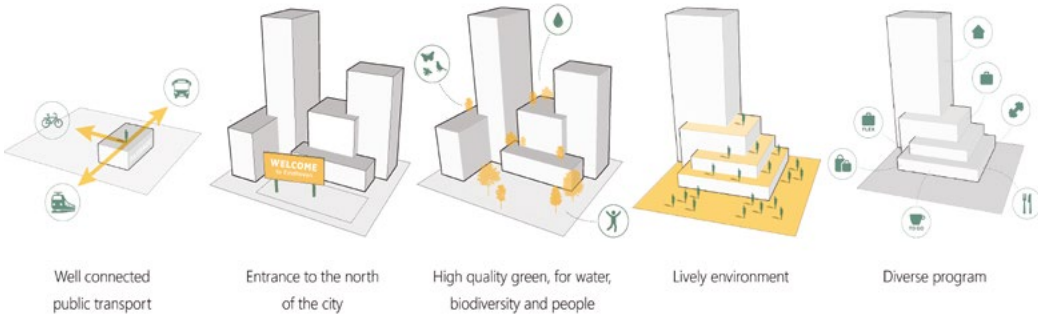
ILSE DE JONG
DAPHNE HOMAN
LINDE JORRITSMA

SCARCITY

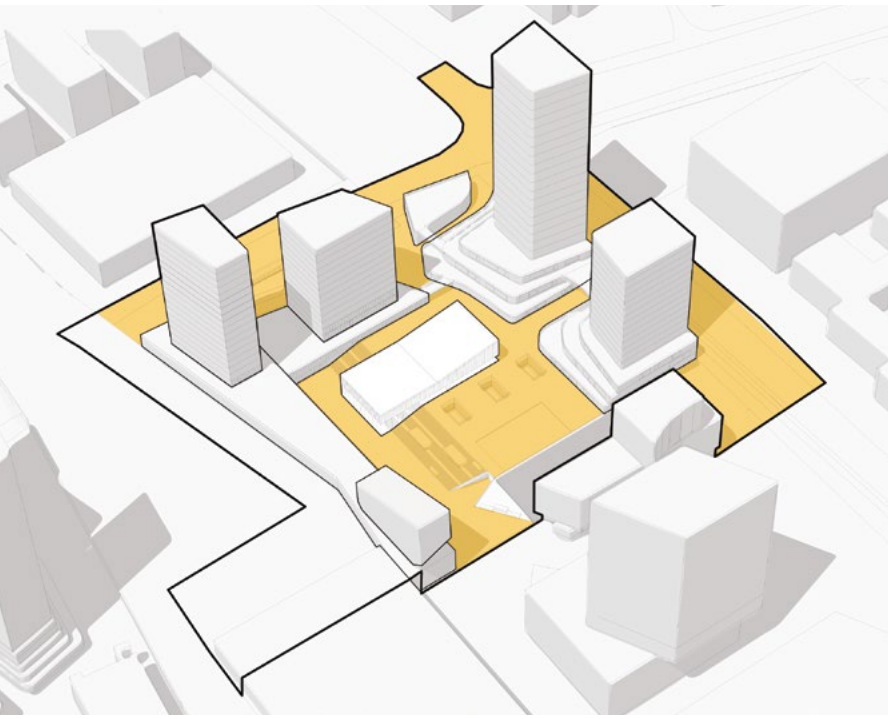
The Fellenoord district is one of the most important development areas in the city of Eindhoven, specifically selected as a test case for the BNA City of the Future project.

The area is located right in the center of Eindhoven, including the station area and close to the old city center of Eindhoven and the TU Eindhoven. Infrastructure decisions in the past have led to Fellenoord turning into a non-human scale traffic machine, disrupting the urban fabric of Eindhoven in the heart of the city. Furthermore, the quality of public space is unacceptable due to unpleasant bicycle and pedestrian tunnels, inward-looking buildings, lack of lively functions and low quality green areas.

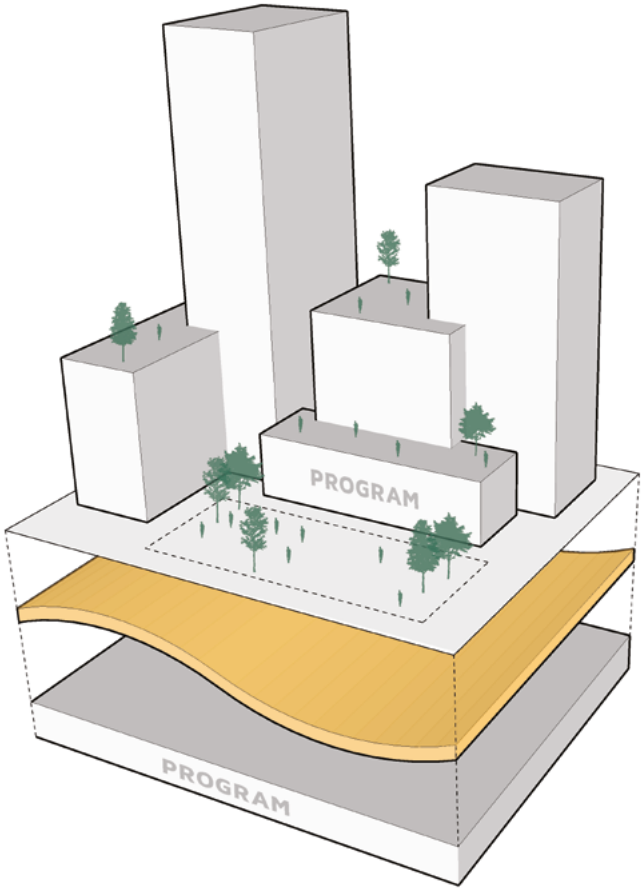
The city of the future needs more housing, more transport, more public space and so on, but there is only a limited amount of square meters. In other words: in the city of the future there is scarcity of space. This design proposal aims to attend the problems of the past and present in Eindhoven Fellenoord, while also attending to the scarcity of space in the future. It does so by introducing a platform to the site, which enables the layering of program and thus optimizing the use of space. The quality of public space and program improves, while keeping an efficient transport system. This means that in the future, Fellenoord will be a pleasant place to pass through, but stay as well.



focus and concept of Scarcity

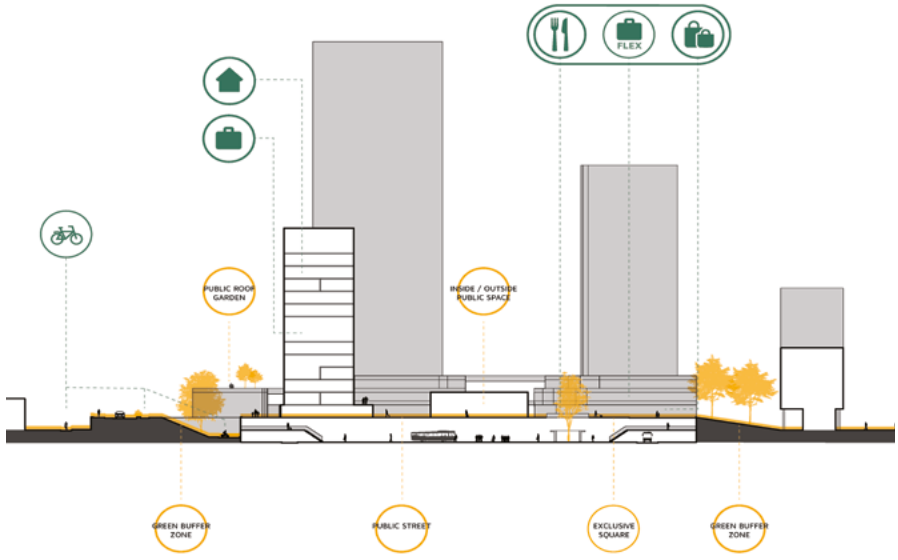


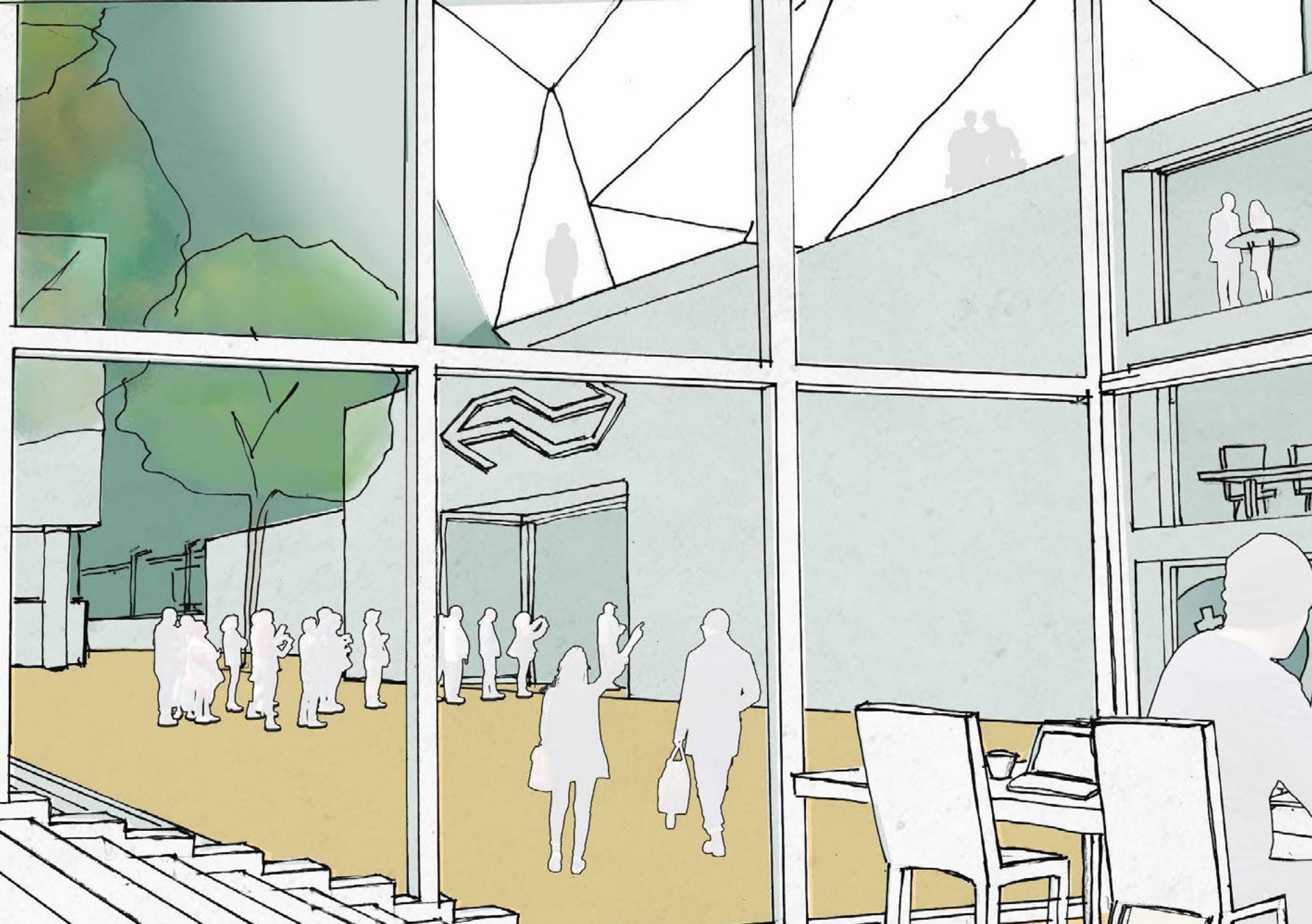
programmatic and spatial organization



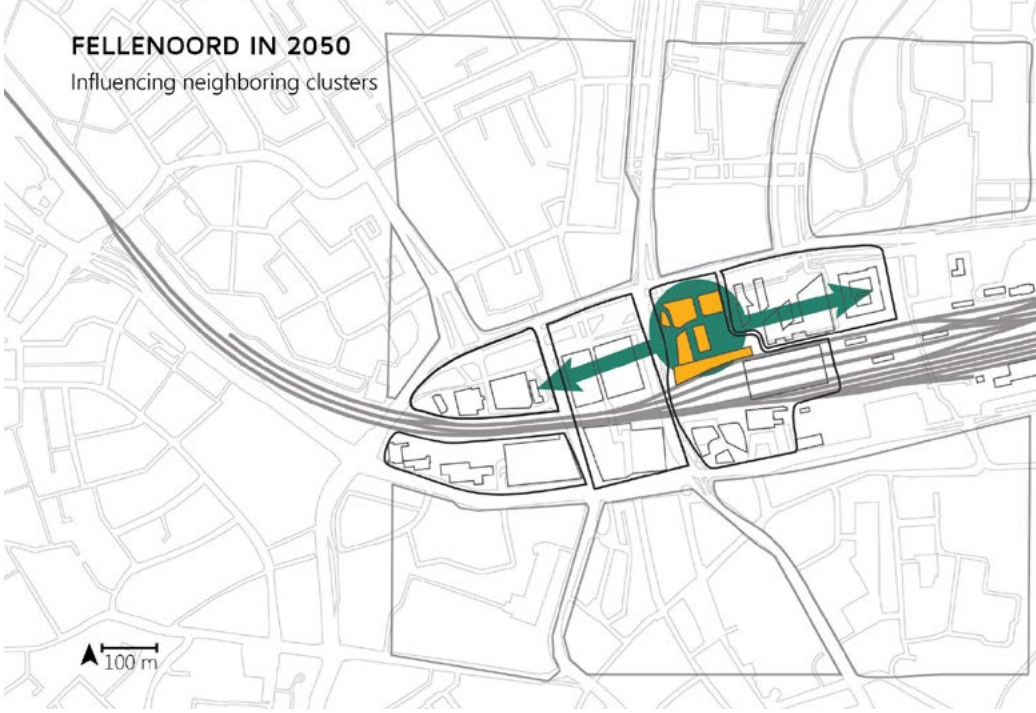
layering of program and public space

section



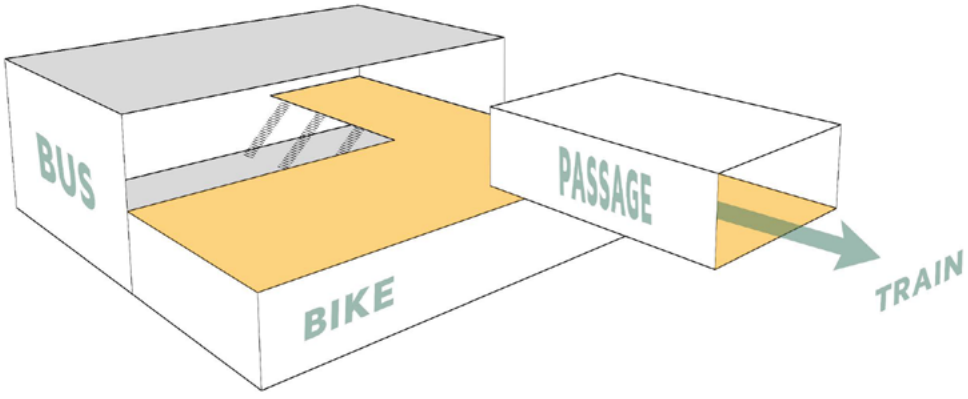


station entrance: showing the innovative identity of Eindhoven serving as a landmark

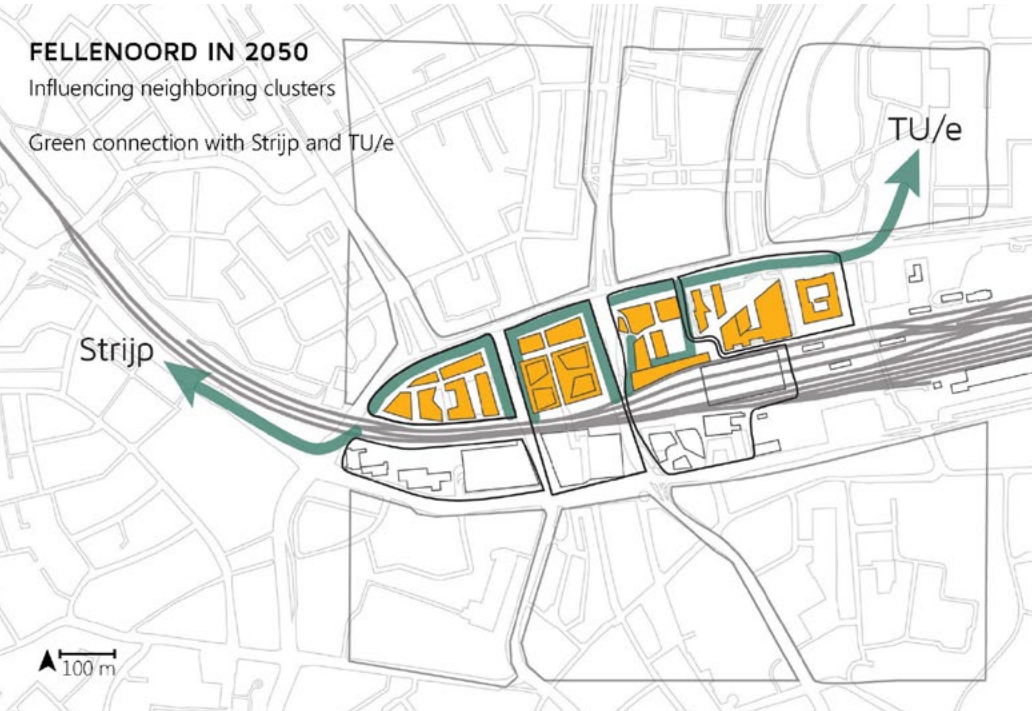


neighboring cluster influence

public transport: organization to improve the safety an experience for the travelers



green connection with Strijp en TU/e



city boulevard street profile

various types of public space on different levels

future development of Fellenoord in 2050

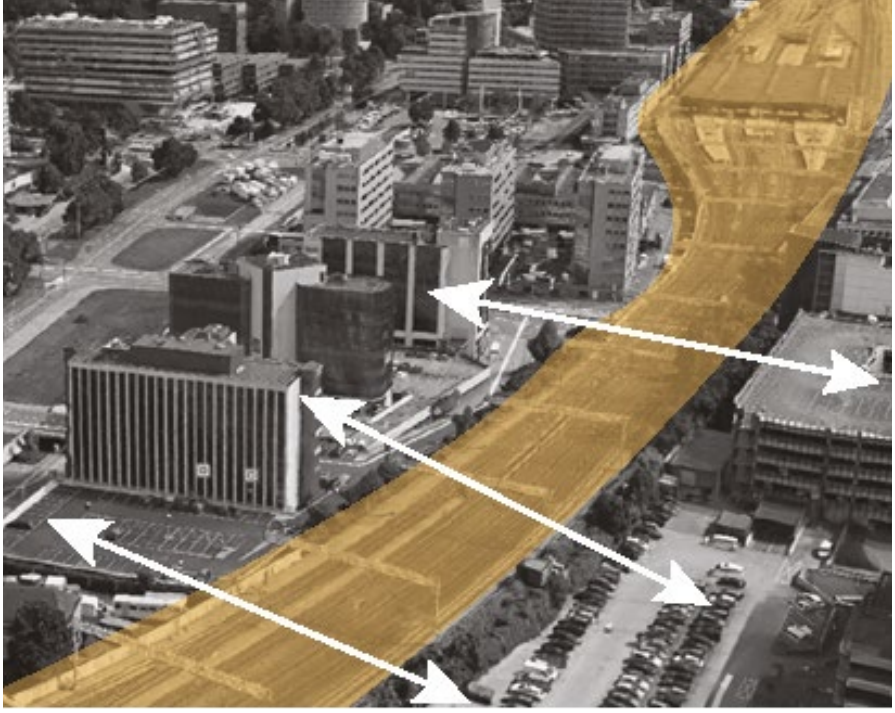
model of Scarctiy

eindhoven

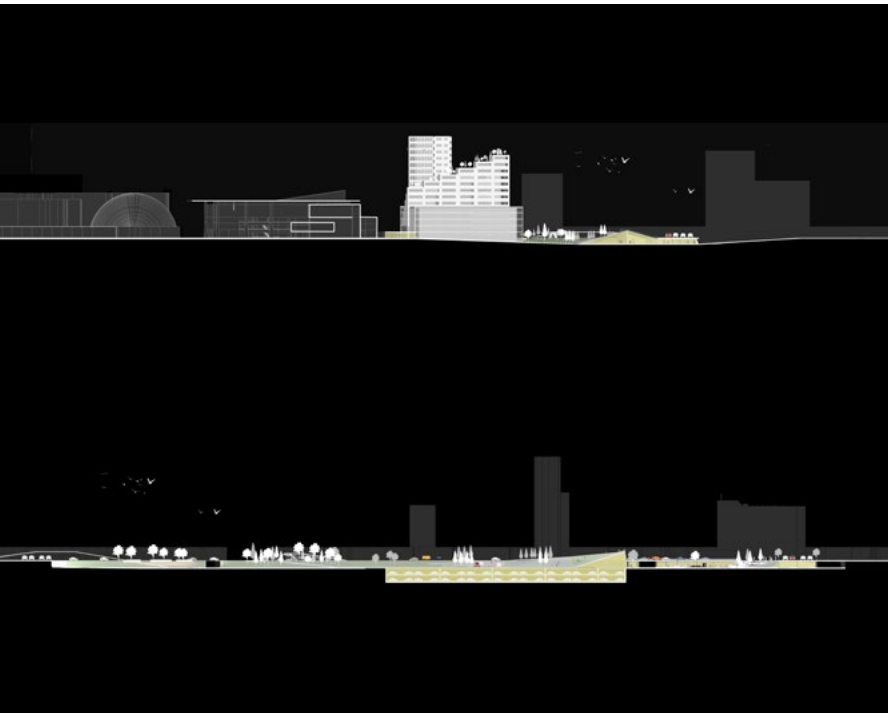
CAI HUANG

FUTURE FELLENOORD

The design intends to address four problems of the research area: fragmentation, unclear connections, mono-function and flooding. To solve these problems in this design, two main corridors are created. One is the north-south corridor which is also the commercial corridor of Eindhoven that connects the city center and Woensel. The other one is the west-east corridor which serves as a social corridor that is shared by the neighborhoods. The intersection of the two corridors are emphasized by a deeper design which contains a market place, an exhibition hall, a convention hall, shops, cafes and outdoor plazas.



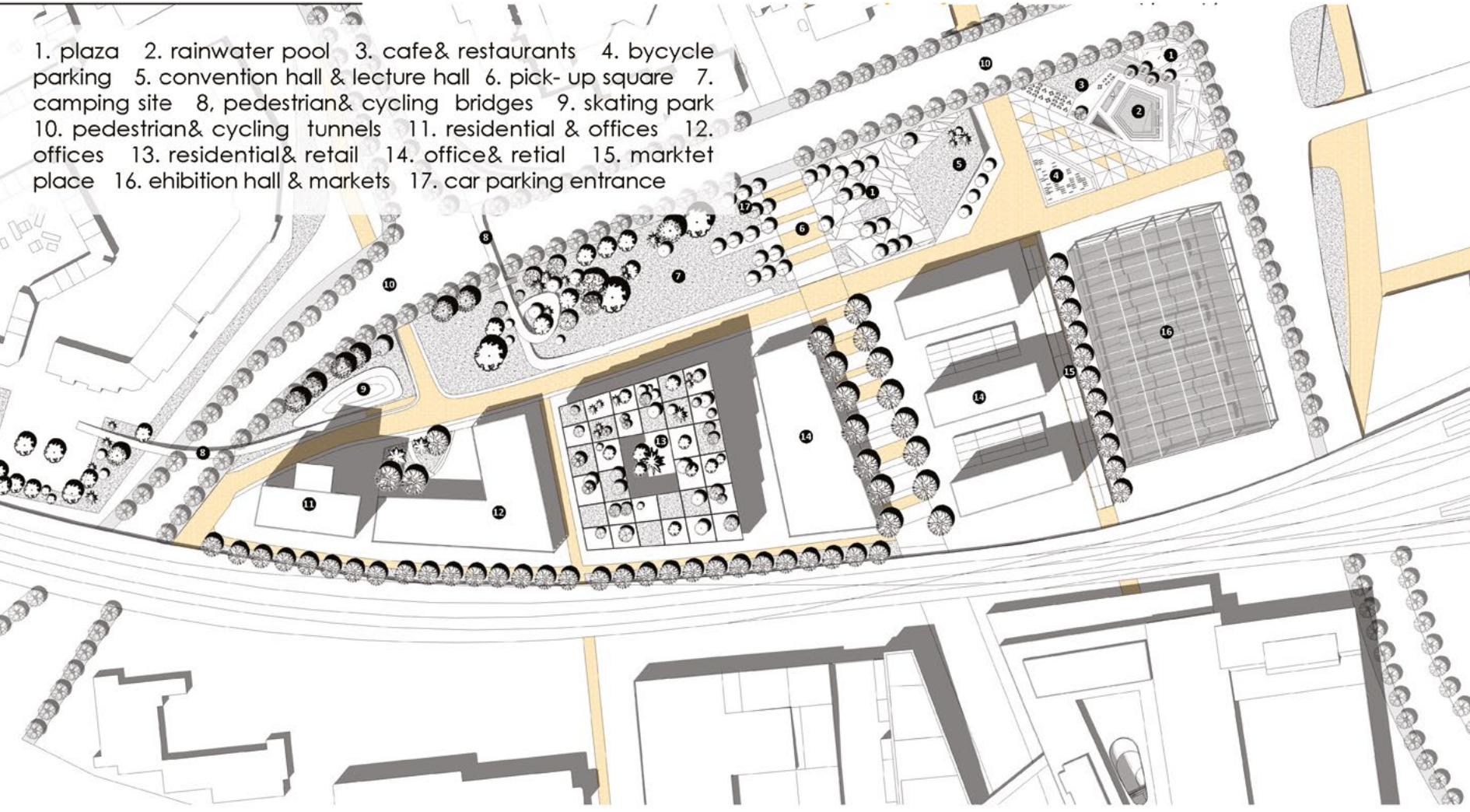
creating permeability



urban sections of future Fellenoord

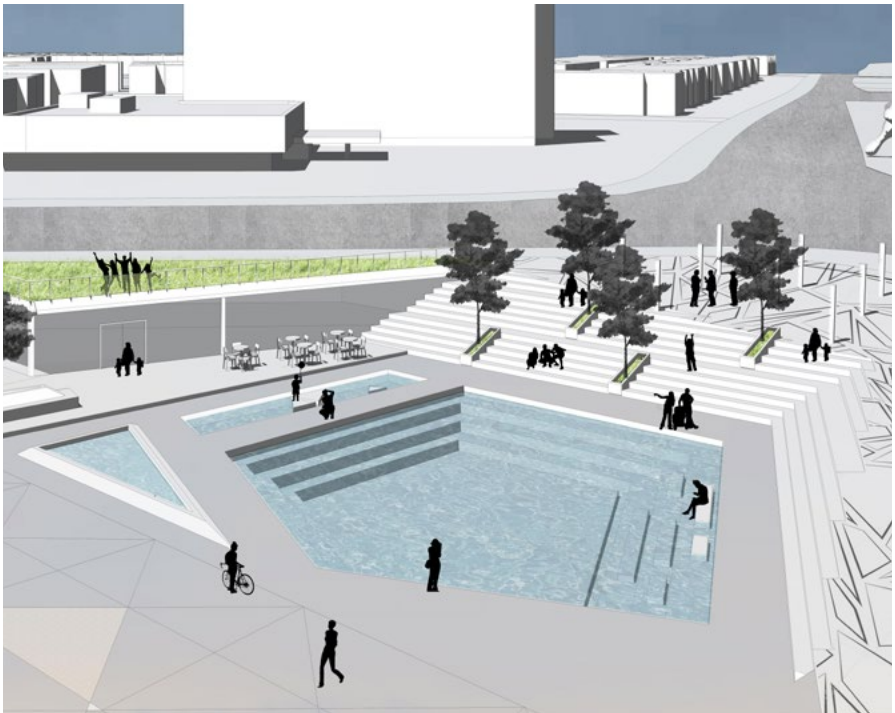
masterplan in axonometric view

1. plaza 2. rainwater pool 3. cafe& restaurants 4. bycycle parking 5. convention hall & lecture hall 6. pick- up square 7. camping site 8, pedestrian& cycling bridges 9. skating park 10. pedestrian& cycling tunnels 11. residential & offices 12. offices 13. residential& retail 14. office& retial 15. marktet place 16. ehibition hall & markets 17. car parking entrance



night view, highlighting the smart lighning system

view on the water square functioning as a reservoir



eindhoven

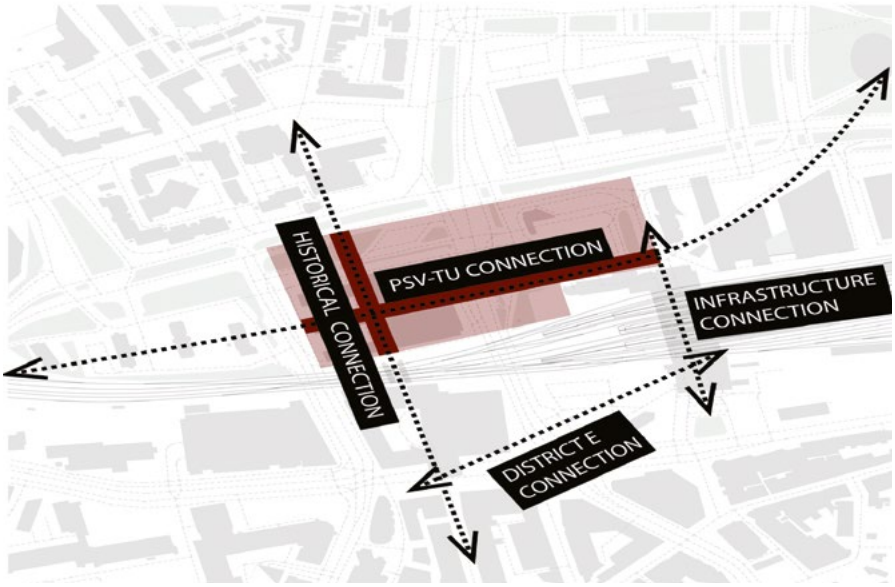
LI TAN

FLATTEN FELLENOORD

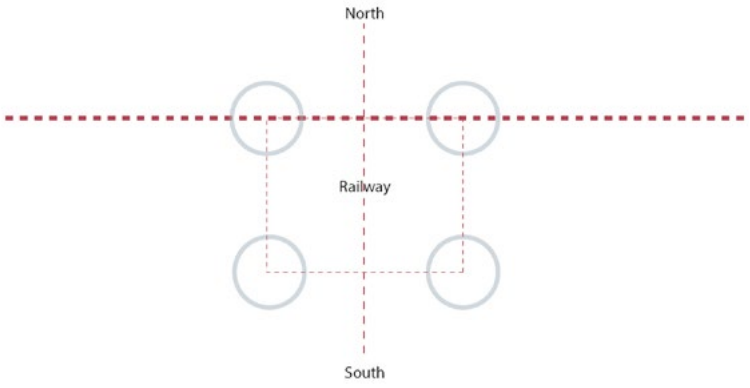
As the core of Brainport, Eindhoven has ambitions to be a smart, healthy, caring and adaptive city. Its technology and design institutes have been the most powerful ‘business card’ to attract high potential people.

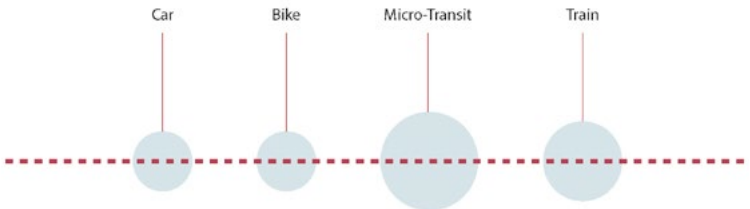
The design proposes to revitalize the north side of the train station as an entrance of the city. To eliminate the infrastructure barrier (raised roads and tunnels), the site would be flattened into a gradual slope. New planning includes reduced infrastructure, densification (mix-use buildings), more climate adaptive urban tissue and ‘small urbanity’.

A new west-east connection will link the TU/e to the PSV Stadium, creating an intersection with the historical axis. Within this axis, a new hierarchy of transportation will be established covering train, micro-bus, high-speed bus, bicycle, cars and other types of shared services. The infrastructural strategy is based on a future vision of ‘autonomous urbanism’, therefore a new street typology will be applied for the human-oriented street.



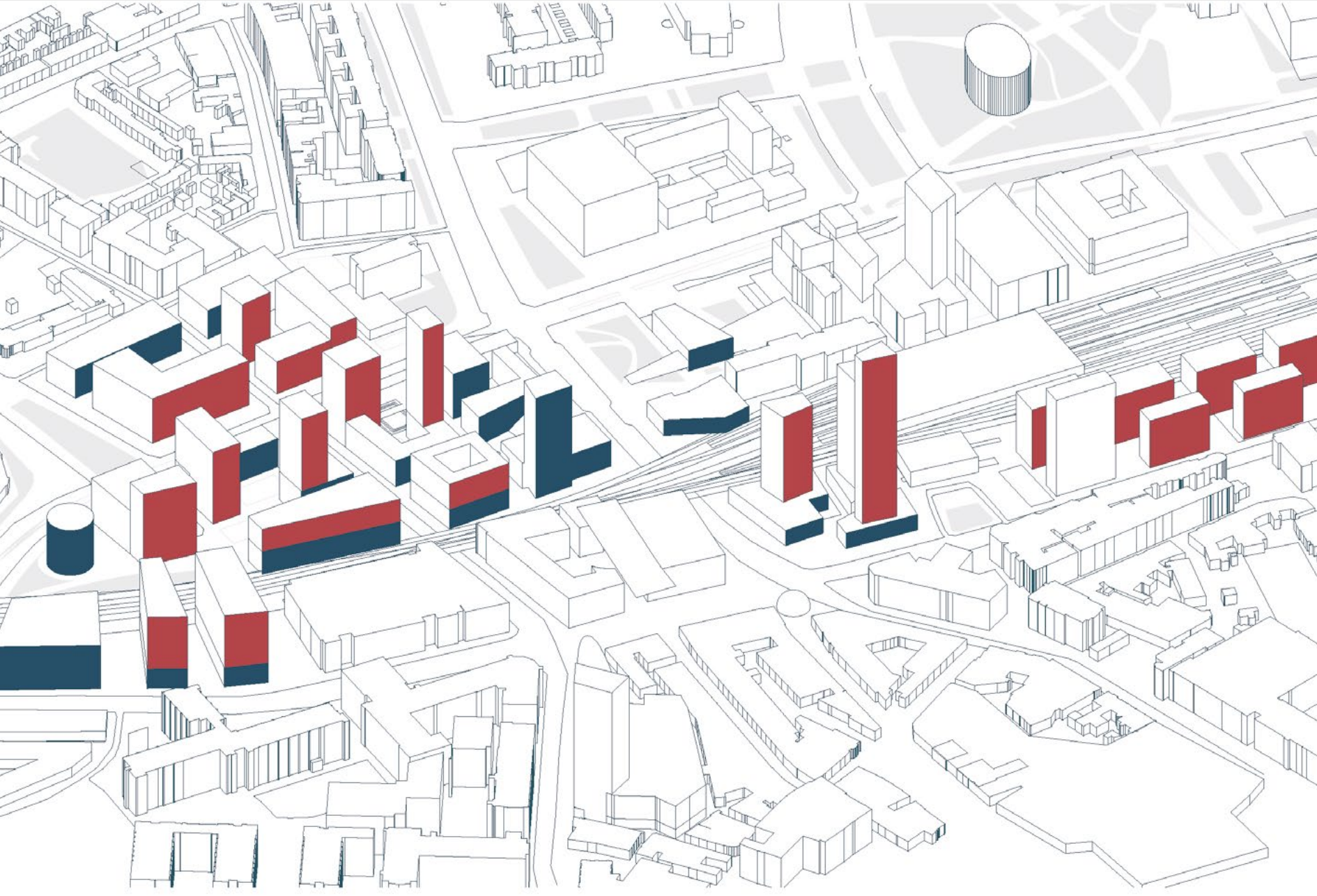
concept: establishing new connections



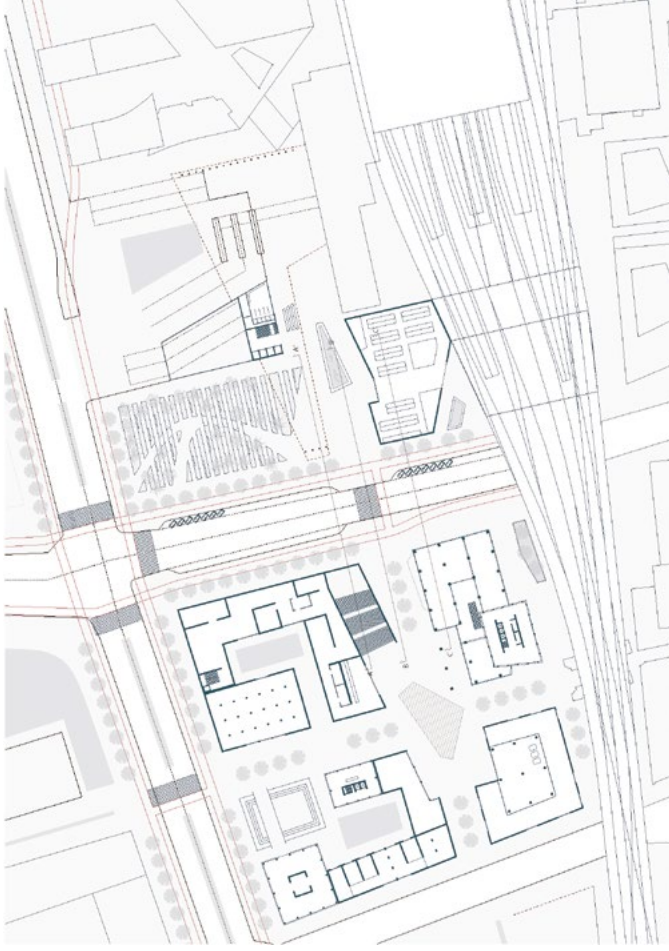


new hierarchy of transportation system within the new East-West axis

isometric bird's eye view

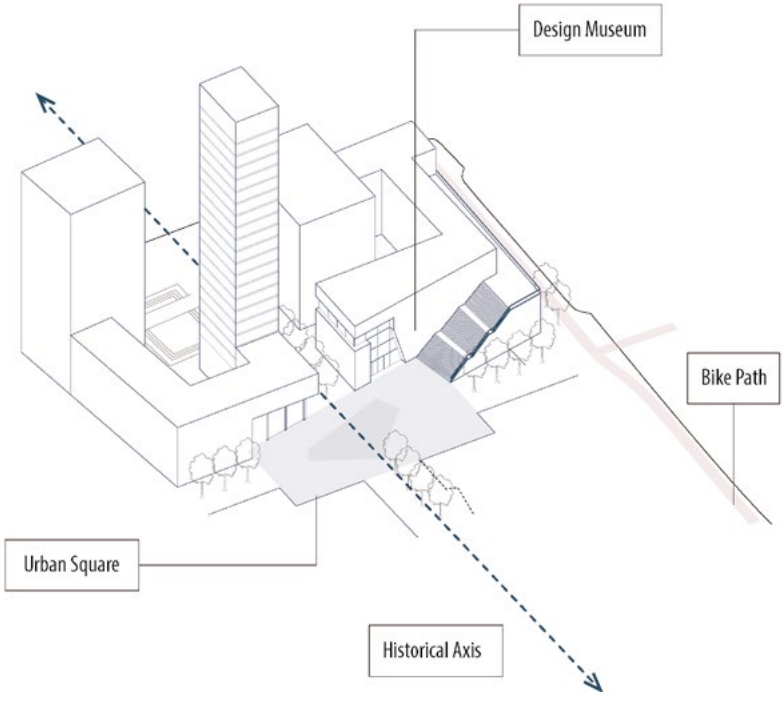


perspective of the new canopy for the bus and train station



masterplan

the historical axis



eindhoven

KRIT THIENVUTICHAI

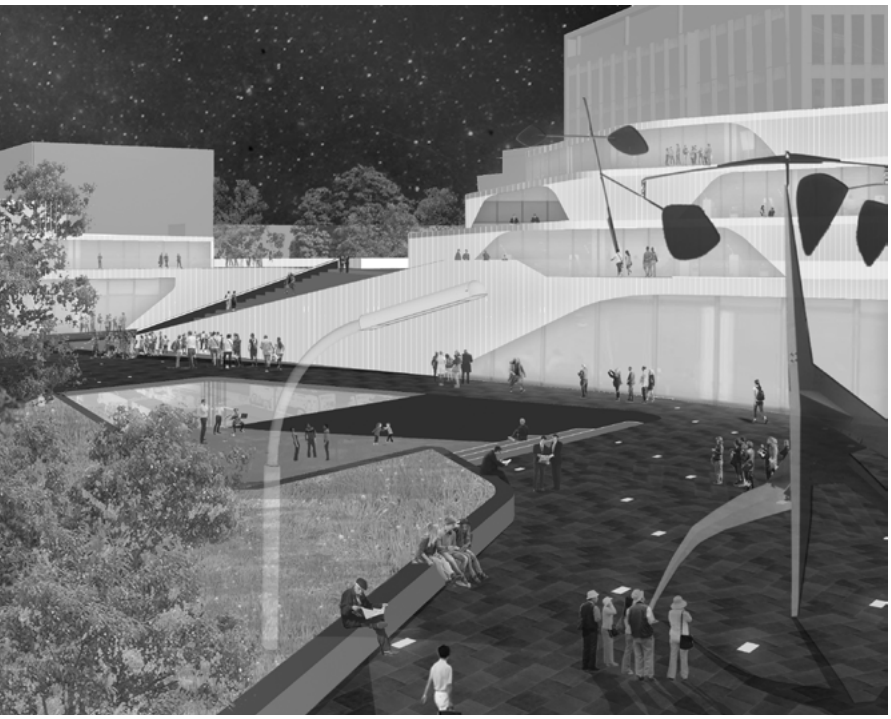
NEW INNOVATIVE CORRIDOR FOR STARTUP SOCIETY

Since Eindhoven changed its scope from industrial city to the new ‘brain port’ of the Netherlands, the idea to attract new start-ups from around the world is applied. The challenge to promote and connect innovative districts called a ‘place to be’ with pedestrian connections was proposed as a future plan for the city.

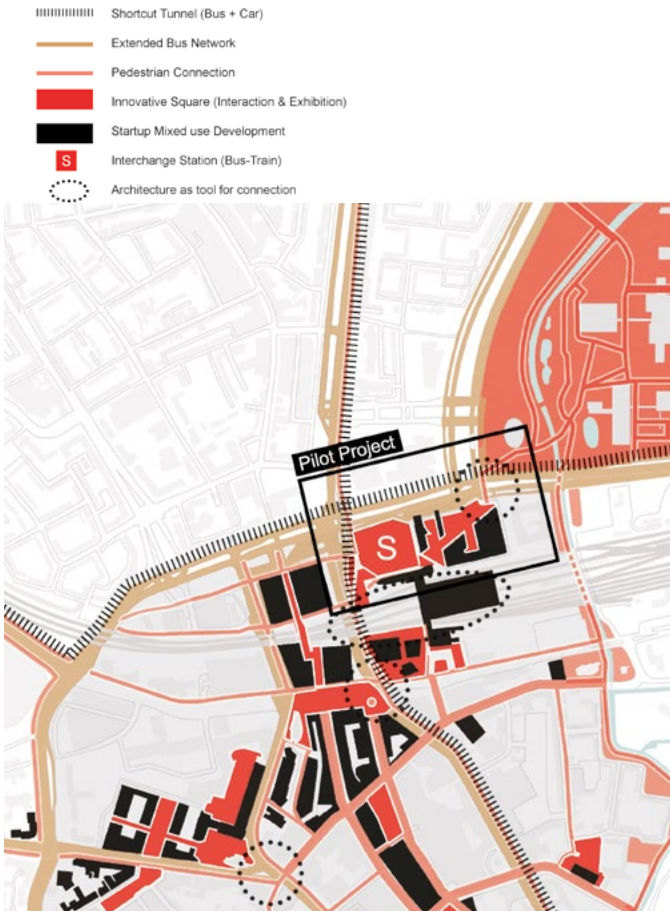
The ‘place to be’ is a public space with a lively social atmosphere aimed at personal interaction. The city will have an extra dimension by adding campuses like innovation villages. However, the biggest issue for this purpose are the large transportation infrastructures which still dominate Eindhoven nowadays.

In order to develop the city to a ‘place to be’, this plan introduces six urban strategies:

1. Public transport domination in inner-ring district
2. Shortcut tunnels to ring road
3. Underground interchange station and parking
4. Architecture as too for pedestrian connections
5. Potential new innovative corridors by city squares
6. Future densification opportunities for start-ups

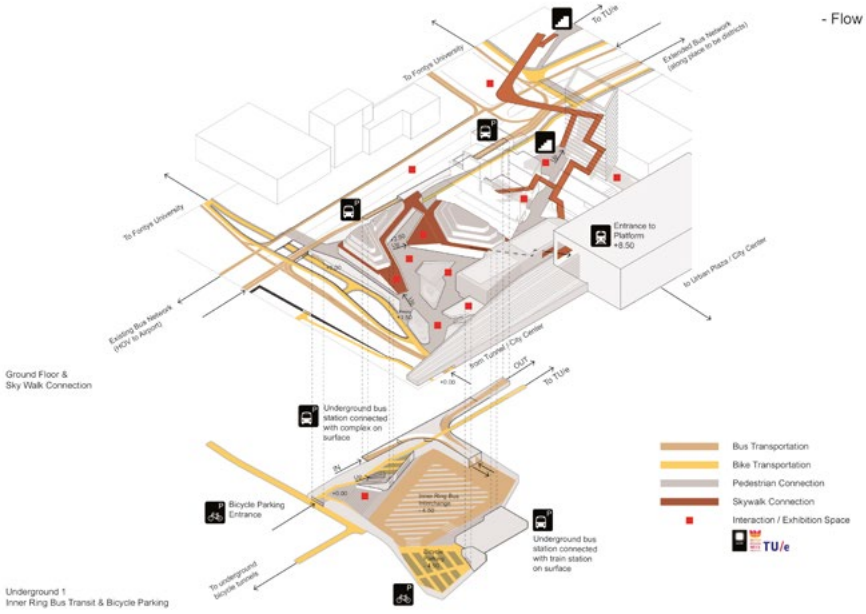


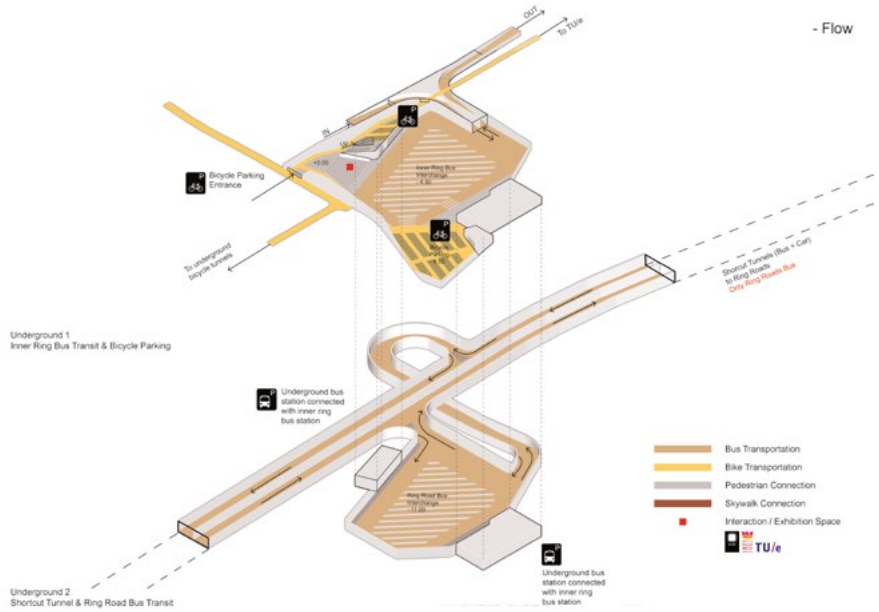
night view on the urban plaza



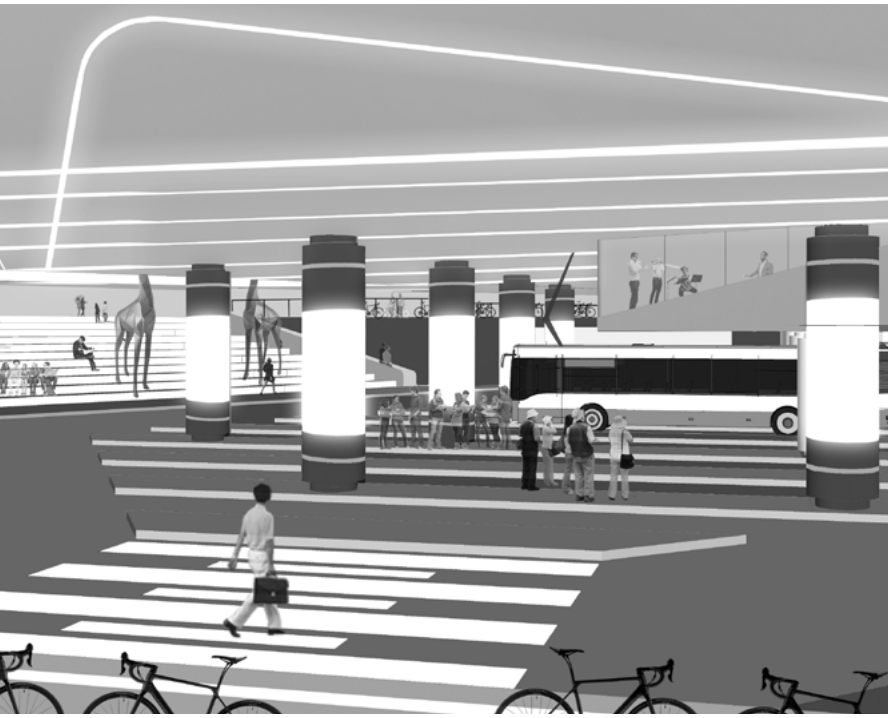
vision of the innovative corridor

exploded view showcasing the flows

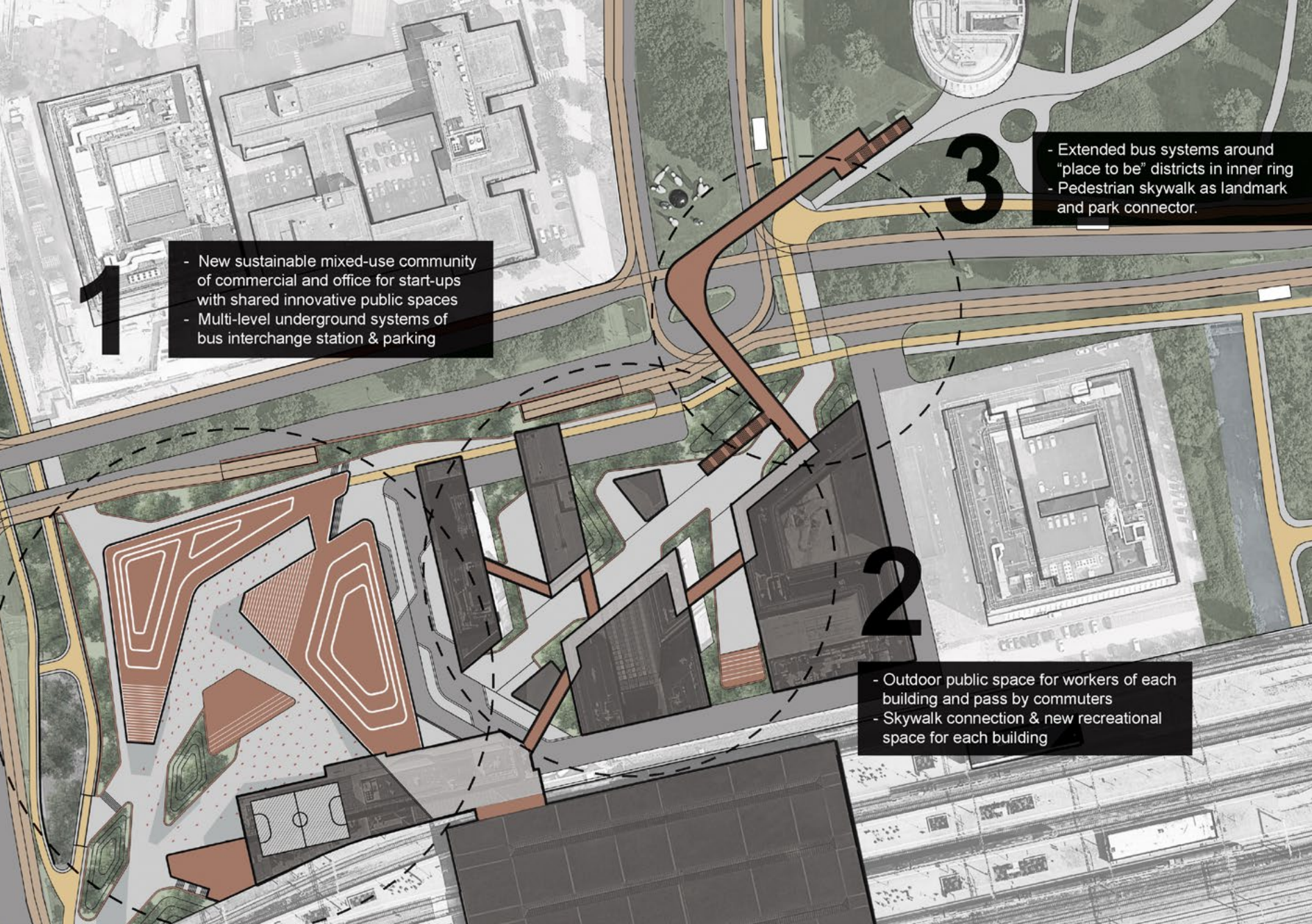




exploded view of the underground flows



perspective on the bus transit


1
- New sustainable mixed-use community of commercial and office for start-ups with shared innovative public spaces
- Multi-level underground systems of bus interchange station & parking
2
- Outdoor public space for workers of each building and pass by commuters
- Skywalk connection & new recreational space for each building
3
- Extended bus systems around “place to be” districts in inner ring
- Pedestrian skywalk as landmark and park connector.

design phase

ROTTERDAM

rotterdam

INTRODUCTION

ALEXANDERKNOOP

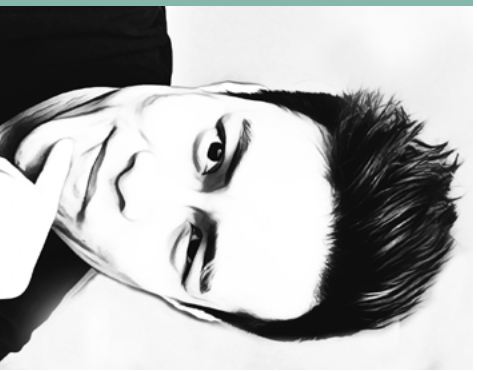
The municipality of Rotterdam started the program ‘Next City’ in order to understand how to cope with new transitions focusing on the physical part of the city: space and systems. It is a program that concentrates on the transition questions looking to it as being a process. Five content driven lines are zoomed in to in the ‘Next City’: Space as a Service, Mobility as a Sevice/Next Connectivity, Next Energy, Climate adaptation and Circulation/Adaptive constructions.

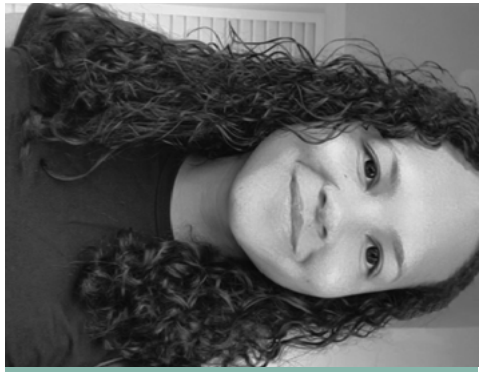
The high-rise program, to densify and connect but also allowing more green in the inner city, proved to be successful and will be expanded to Alexanderknoop and Feyenoord City. In 2010 an expansion vision is made for the Alexanderknoop. Now people question this vision taking in account the current market developments, the social transitions and the increasing demand for dwellings.

Offices, dwellings and health institutions are used more flexible every day, functions keep changing constantly throughout the years. This means that the built environment keeps getting more requirements.

How do new social trends and technological developments translate themselves in the physical city? And how does a city coop with insecurities?

Bertrand
TAN

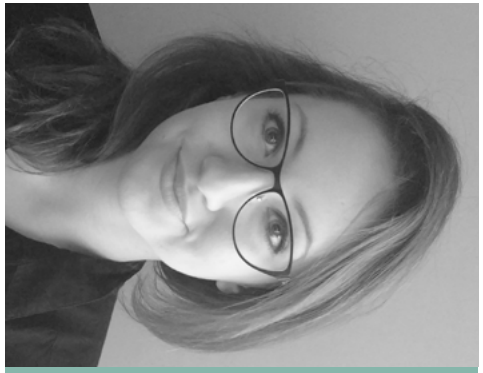




Kendra
HEIDE

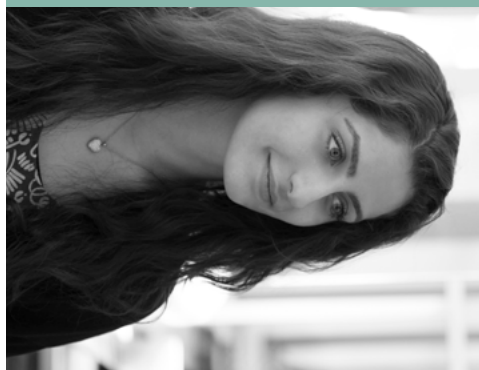
Amin
GHAFFARINEJAD

Juliëtte
ZEGERS



Dagmara
PISZCZ

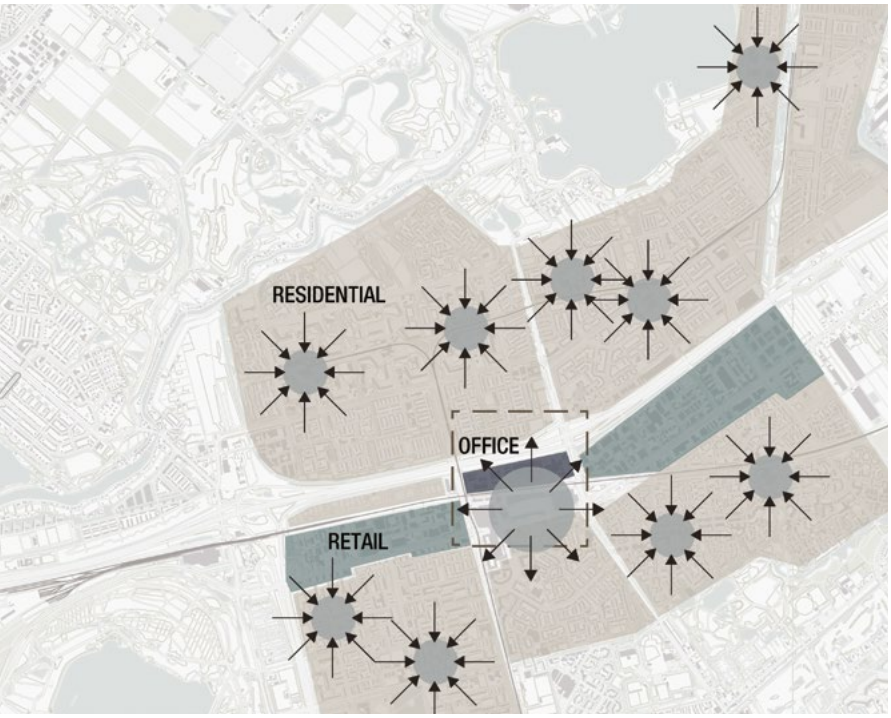
Shirin
HADI



rotterdam

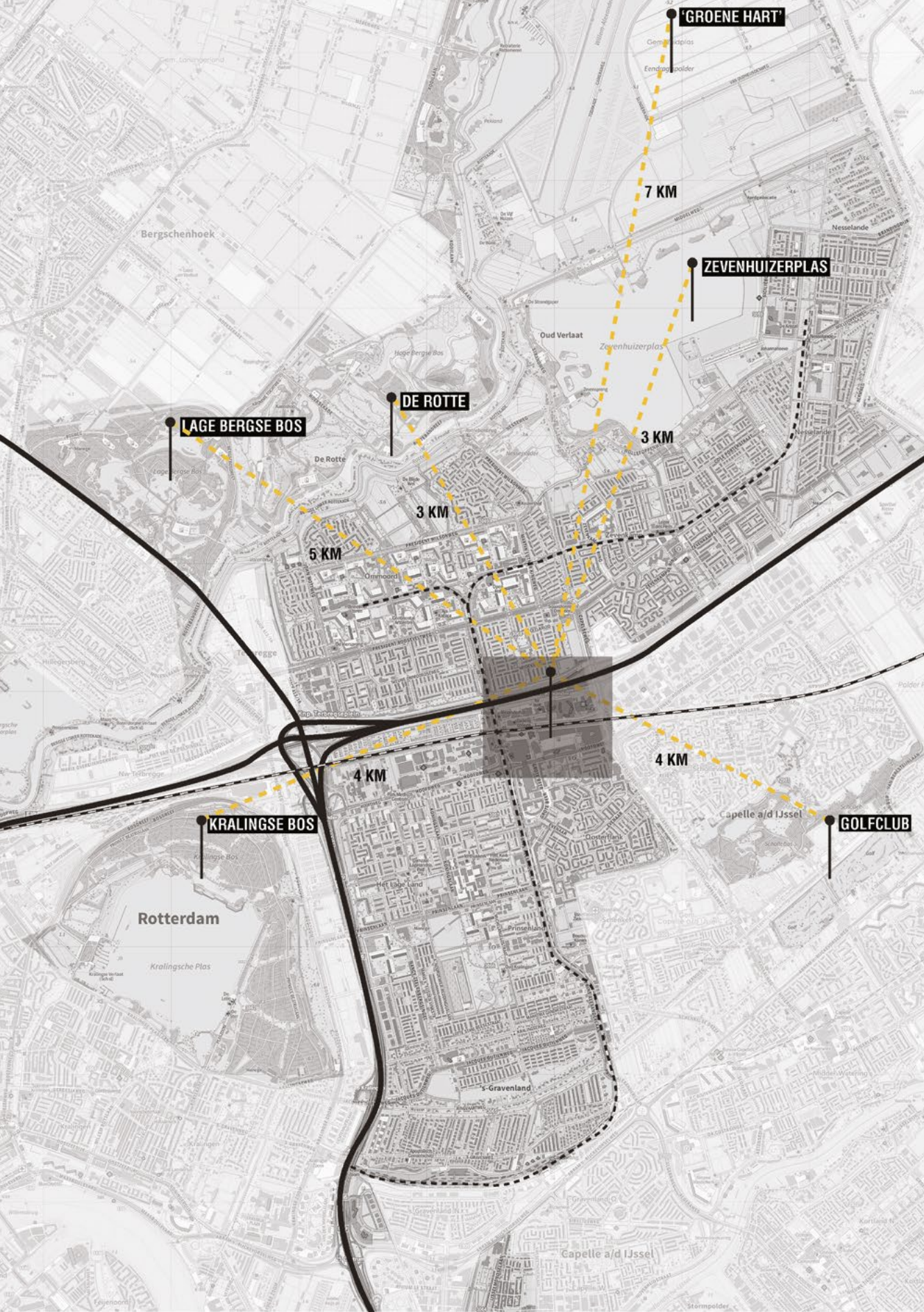
ANALYSIS

the highway running through Rotterdam Alexander make it highly accessible



biased focus within the site

proximity to different recreational areas

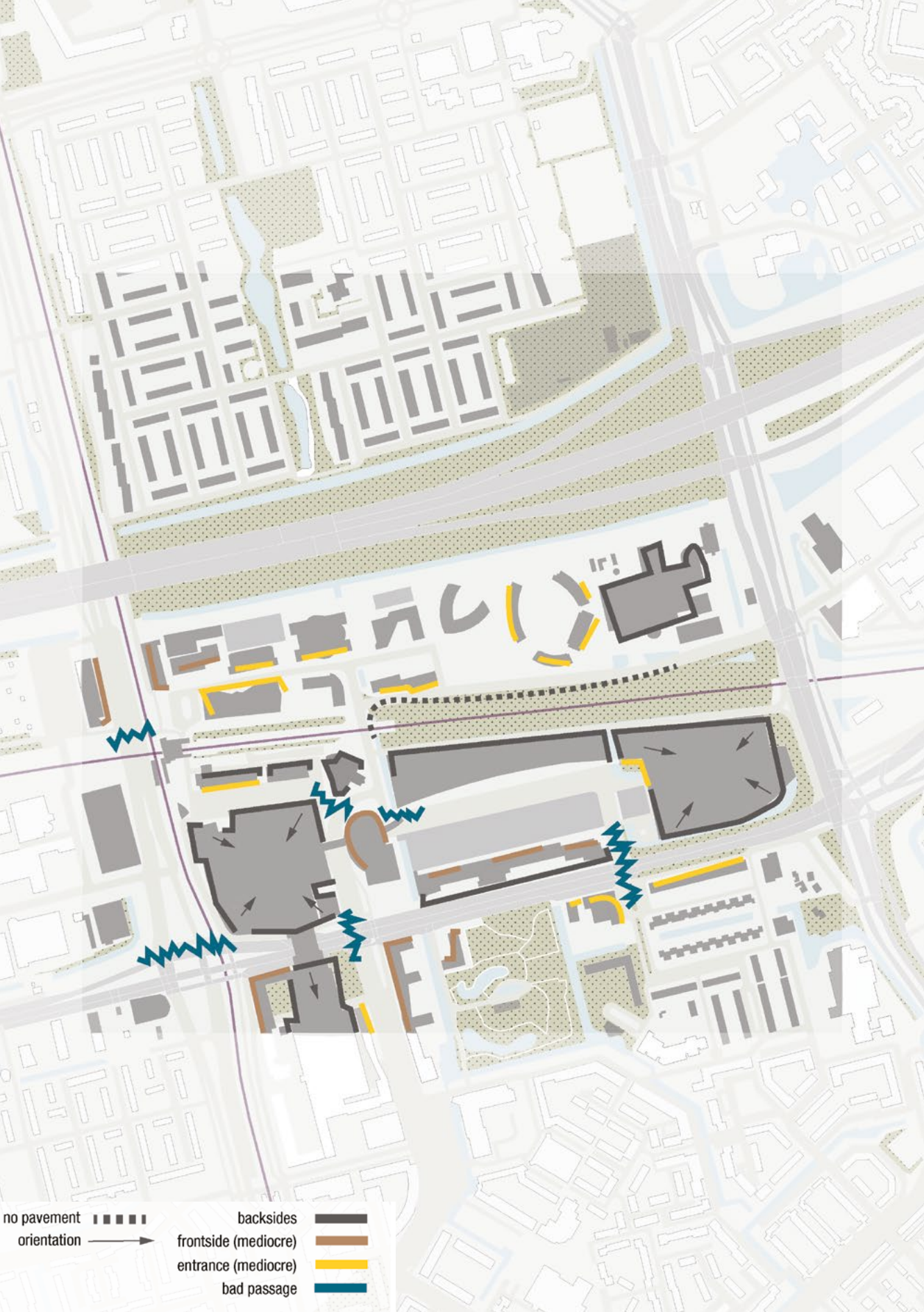

'GROENE HART'
7 KM
ZEVENHUIZERPLAS
3 KM
DE ROTTE
3 KM
LAGE BERGSE BOS
5 KM
4 KM
4 KM
KRALINGSE BOS
GOLFCLUB
Bergschenhoek
Nesselande
Oud Verlaat
Zevenhuizerplas
De Rotte
Ommoord
Rotterdam
Kralingsche Plas
Het Lage Land
Prinsenland
's-Gravenland
Capelle a/d IJssel
Oosterflank


TRAIN
CARS
METRO

borders and obstructions in the area

monofunctional zoning

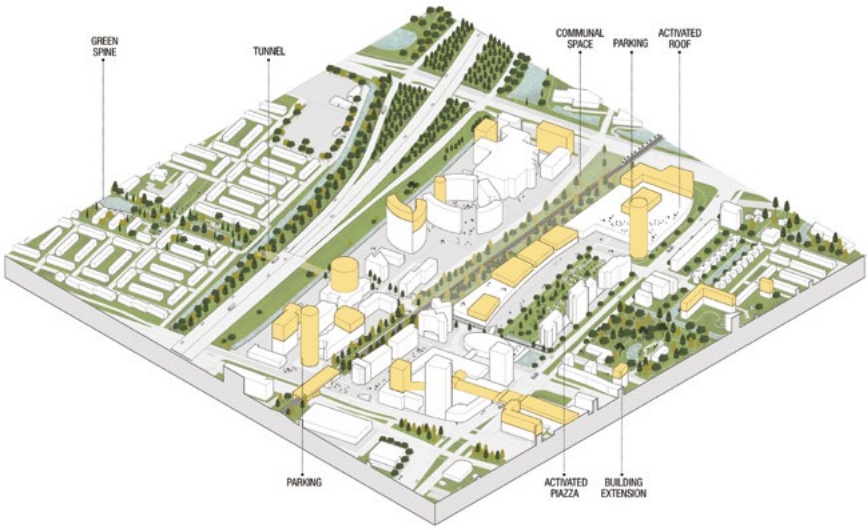
car dominance within the area


no pavement
orientation
backsides
frontside (mediocre)
entrance (mediocre)
bad passage

lack of active public space

value of green and water bodies

proposal: green culture hub



rotterdam

PERSONAL PROJECTS

rotterdam

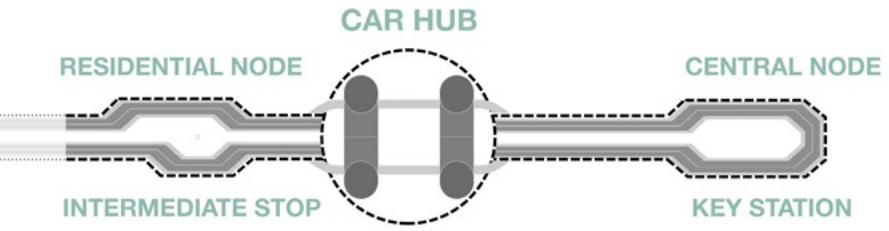
AMIN GHAFFARINEJAD
BERTRAND TAN

HIGHWAY X BOOM!

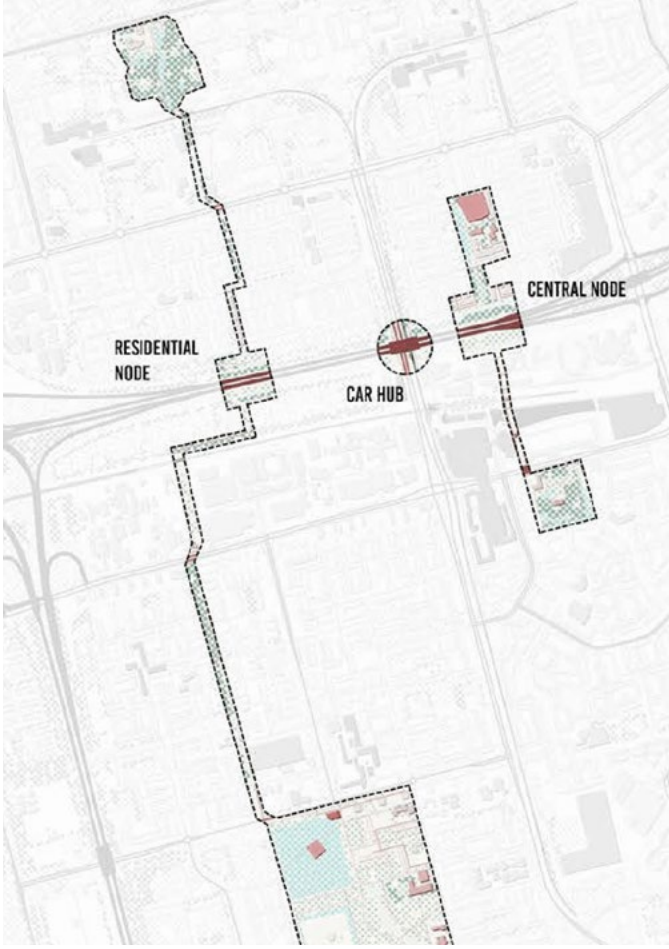
Highway X Boom! is a design project which seeks to reinterpret and reconceptualize the role of highway infrastructure on our existing urban fabric. Recognizing the importance of the highway infrastructure for the future of automobile mobility, the starting premise of the design process is to move away from the existing negative stigmas about highway infrastructure being disruptive on our urban fabric and to reconceptualize the highway as an asset which we can capitalize on.

Demonstrated on Alexander Rotterdam, the design proposal seeks to illustrate how with proper design strategies and architectural elements, existing highways can act as a catalyst in stitching the urban fabric and improving the overall urban conditions. With adaptability and hybridization across time as the key design concepts and by responding to the existing green network and character of Alexander, the design proposal introduces a linear park under the highway which may be re-purposed into different mobility network (electric bikes in 2030 and autonomous cars in 2040) if there is a demand for more mobility infrastructure in the future, while at the same moment allowing for densification around the highway. This operates hand in hand with architectural elements, such as the BOOM!, which were conceived as a fusion of nature, architecture and technology, and as such, emblematic of the master plan approach.

At one level, they improves the spatial quality of the space underneath the highway, at another they are environmental engines for the entire Alexander and new developments around the highway, allowing the highway to add an identity to Alexander and an additional sustainability network to the existing urban network. Moving between the urban and the architectural scale, crossing between the architecture and the engineering discipline, the eventual design proposal demonstrates the potentials of conceiving existing highway infrastructure as an asset.

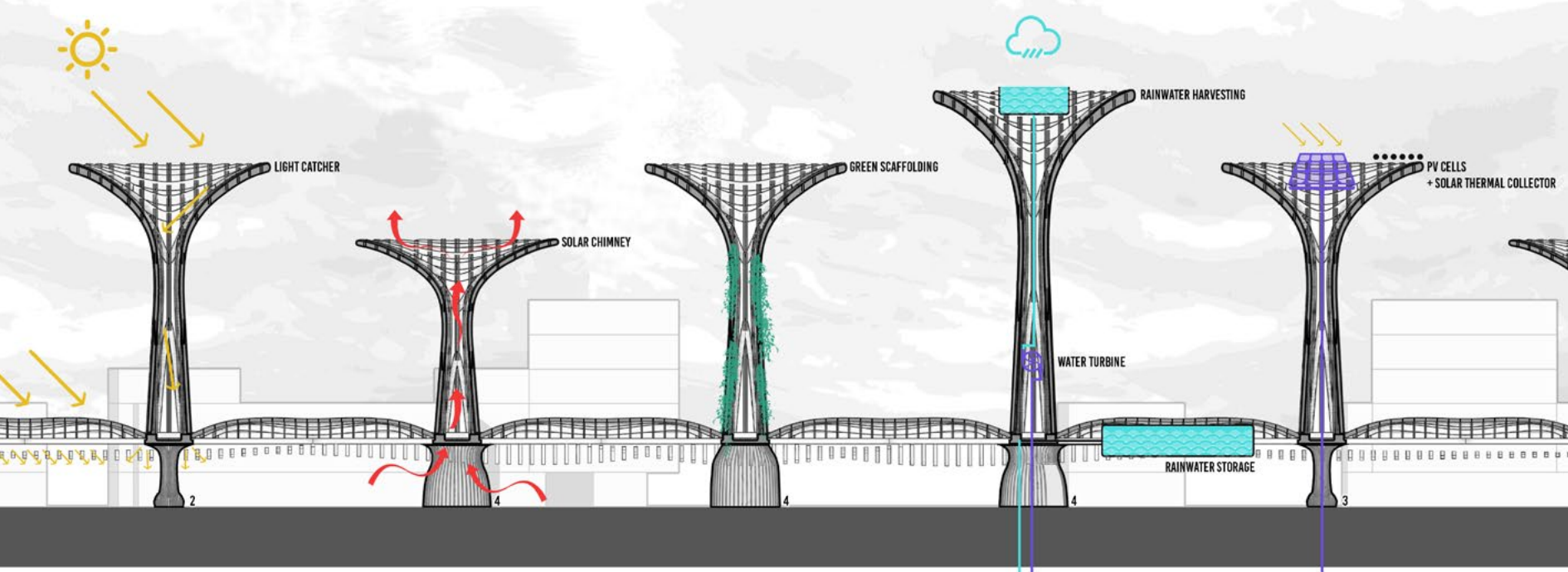


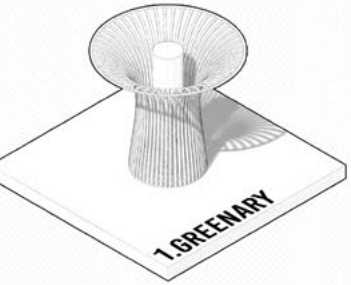
car sharing system

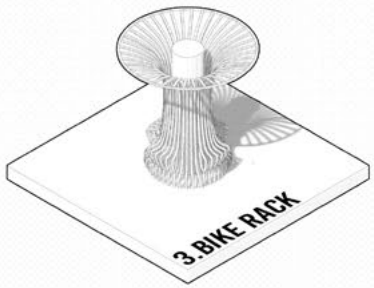


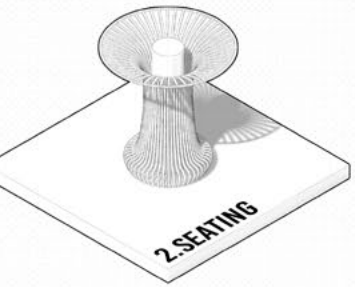
masterplan

perspective on the Highway X BOOM!


LIGHT CATCHER
SOLAR CHIMNEY
GREEN SCAFFOLDING
RAINWATER HARVESTING
PV CELLS
+ SOLAR THERMAL COLLECTOR
WATER TURBINE
RAINWATER STORAGE
2
4
4
4
3


1.GREENARY


3.BIKE RACK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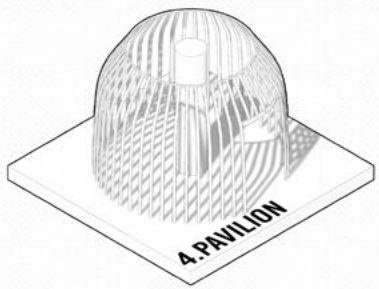
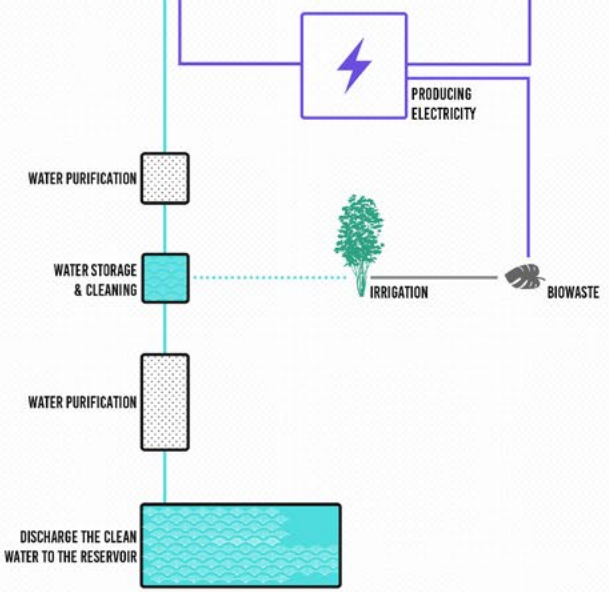
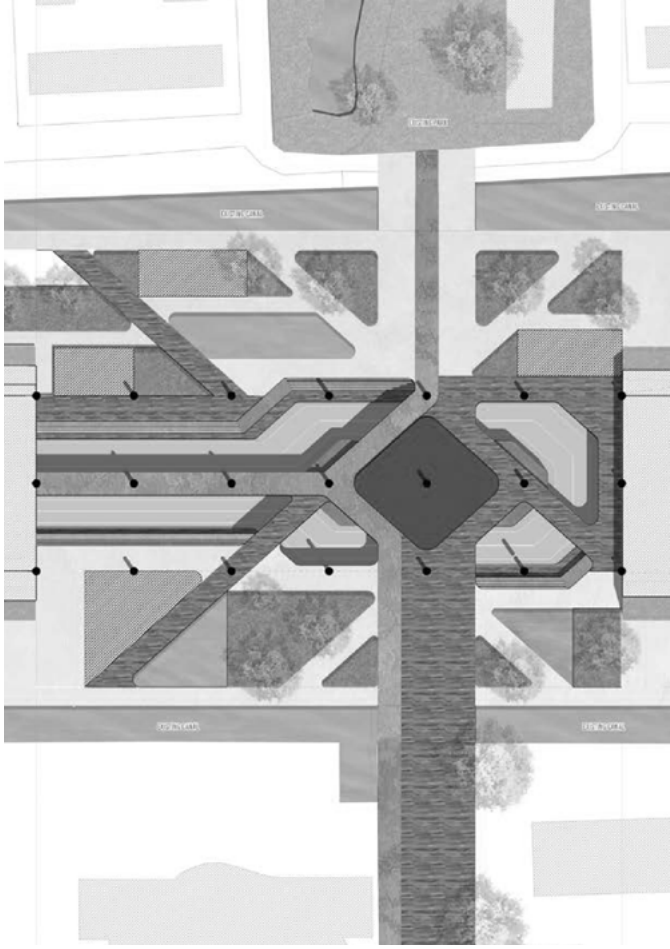

4.PAVILION


PRODUCING
ELECTRICITY
WATER PURIFICATION
WATER STORAGE
& CLEANING
IRRIGATION
BIOWASTE
WATER PURIFICATION
DISCHARGE THE CLEAN
WATER TO THE RESERVOIR

longitudinal section of the highway explaining the system



plan of the central node, first phase

section of the central node, first phase

rotterdam

SHIRIN HADI

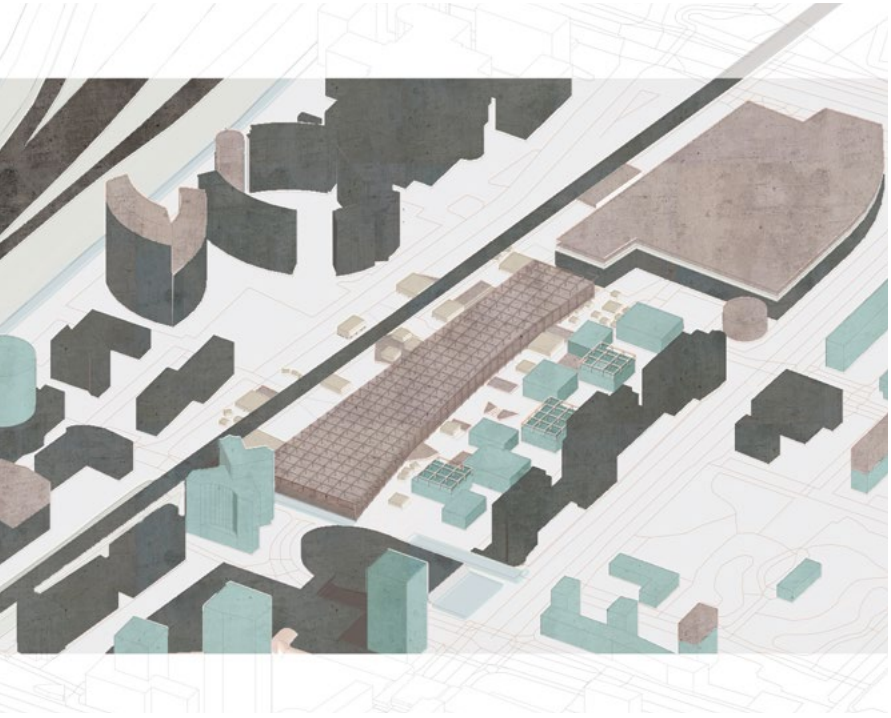
MEGASTORES

While mono functional shopping malls are slowly dying integrating ‘third places’ is becoming more and more important. The area and around Rotterdam Alexandrium II should therefore be transformed into a hybrid composition of residential, retail, office and other public or semi-public functions.

Being situated centrally the 1 × 1 km area now is mainly occupied by parking lots and retail stores. To tackle this problem, the existing buildings have to be refurbished with in a sustainable way where. After slowly changing the area into a car free zone, the previous parking lots will become a residential areas with lively ground floors.

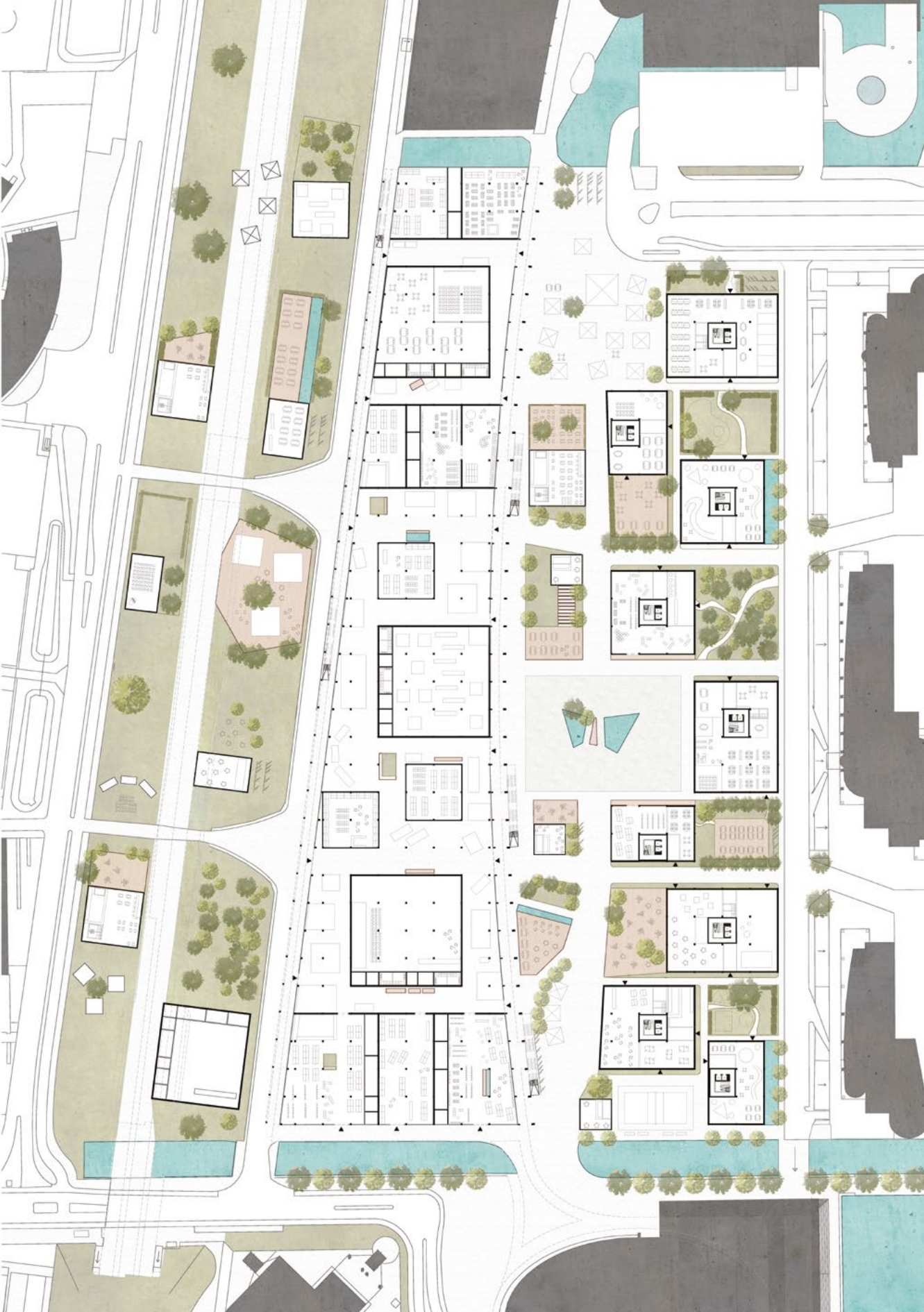
The former Megastores themselves will develop into a flexible retail space where the new ways of shopping are elaborated like concept stores, pick-up stores and show-rooms. The space in between the few fixed elements ensure connectivity to the new created ‘underline’ area and encourage active participation of the residents.

problem statement: shopping



strategy: hybridization

ground floor plan



view from the piazza

plan second floor

view on the residential garden

rotterdam

KENDRA HEIDE

THE GREEN NODE

The sub municipality Alexander is known for its shopping district. Its well connected infrastructure creates the opportunity for people from outside the region to visit Alexander. The issue is that people only visit Alexander to shop, people don't tend to stay there. Issues such as car dominance, mono functional zoning and poor transferability between places generate a neglected ground floor.

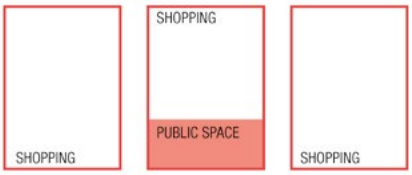
To create a place of identity the priority is to enhance and strengthen the public space. The implementation of leisure-based activities or third places will ensure the hybridization of the program, making the area attractive and usable both at day and night. Retail and working spaces need these changes to survive in the future. In the future shops will most likely be more oriented towards these public spaces. This design focuses on the design of the public space surrounding the shopping areas.

Enhancing the water-body and adding nature banks to one side of the water body will improve the quality of the water and also the space. By creating a platform on the first floor, flexible programs such as art galleries or outdoor concerts and markets can emerge.

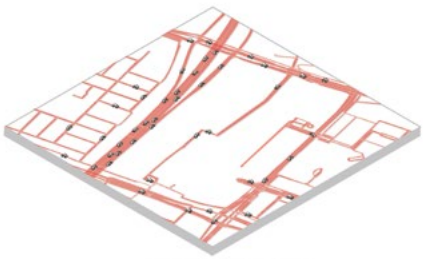
The pavilion will connect the public space activities finding place on the ground level with the other activities taking place on the first floor.

Ultimately the design connects public spaces on different levels with each other.

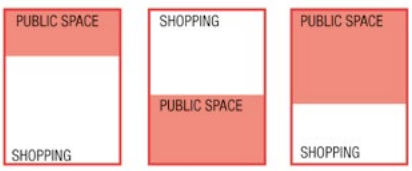
EXISTING CAR DOMINANCE



CURRENT VIEW ON SHOPPING



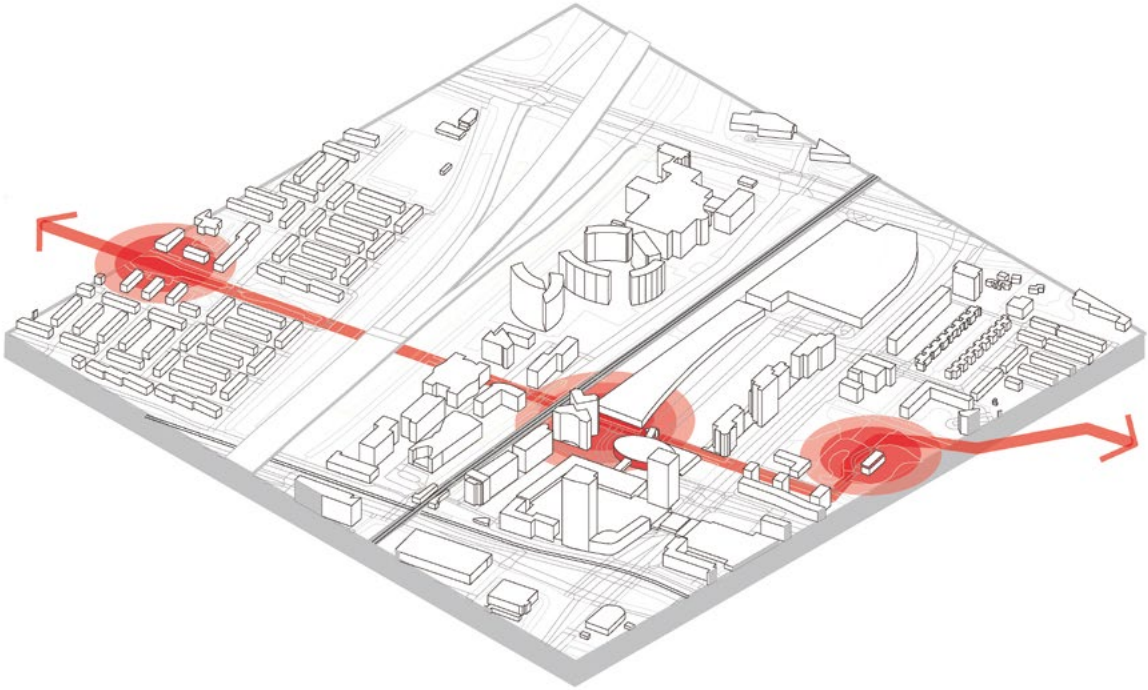
FUTURE SCENARIO CAR DOMINANCE

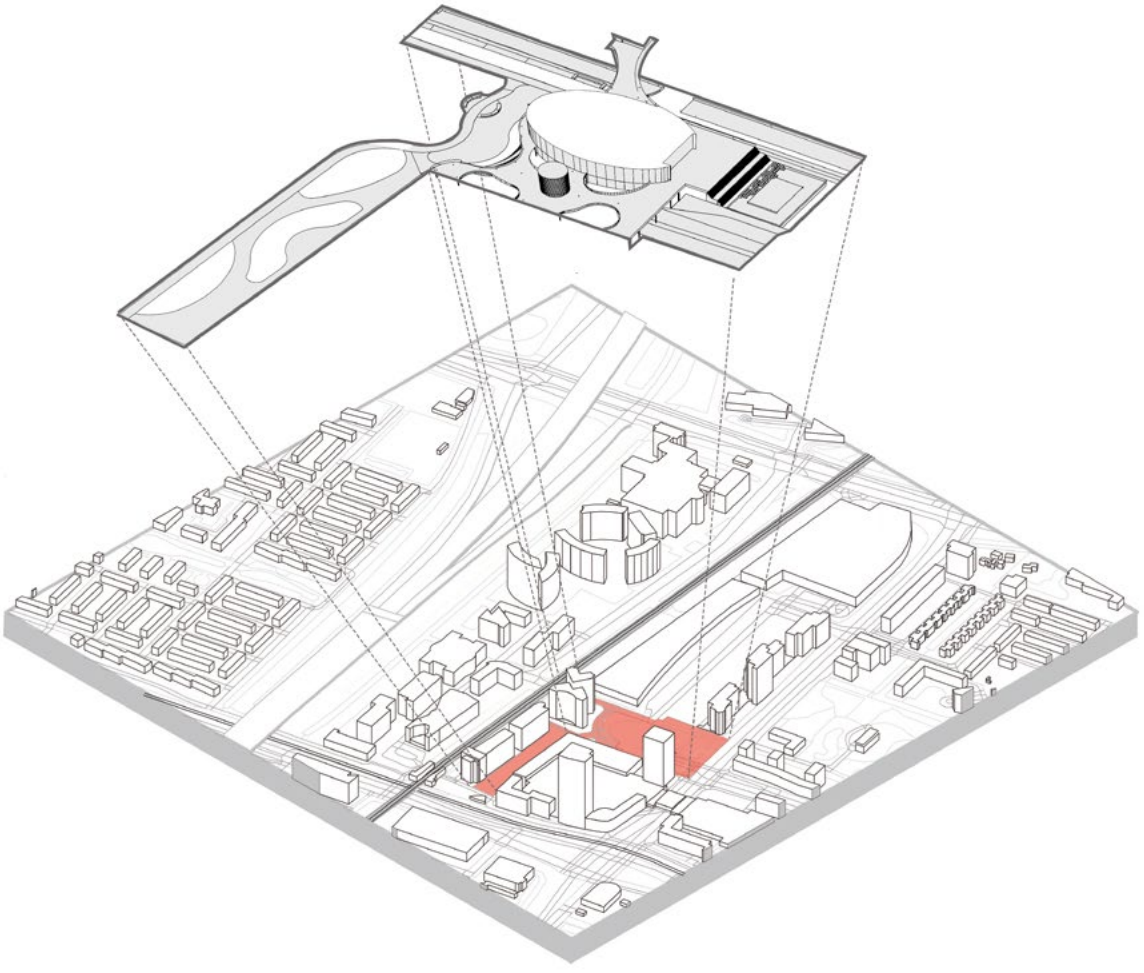


FUTURE SCENARIO VIEW ON SHOPPING

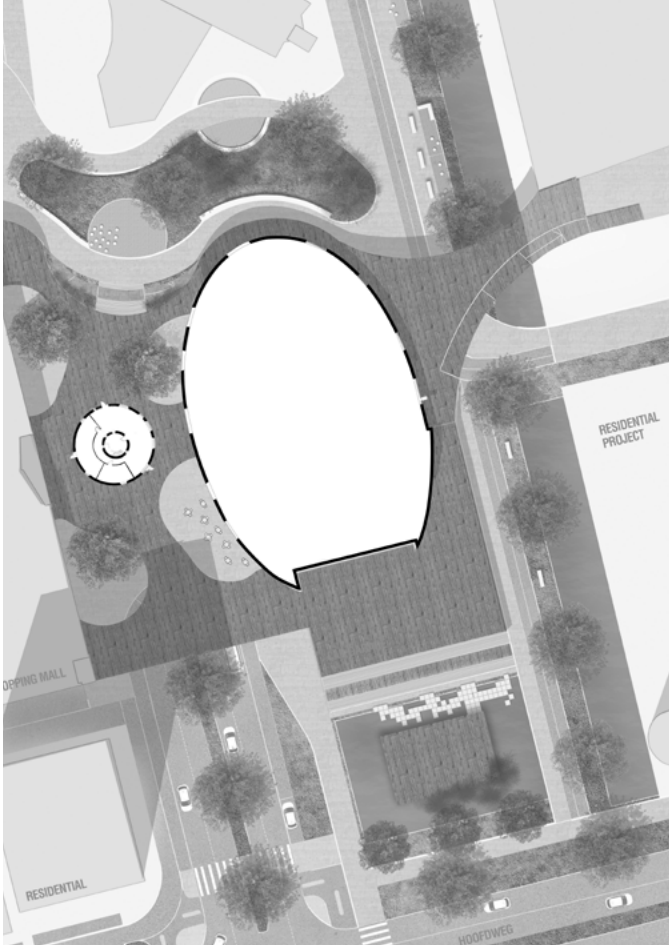
future scenario for car dominance and shopping

nodes alongside the green finger and an axonometric view of the node



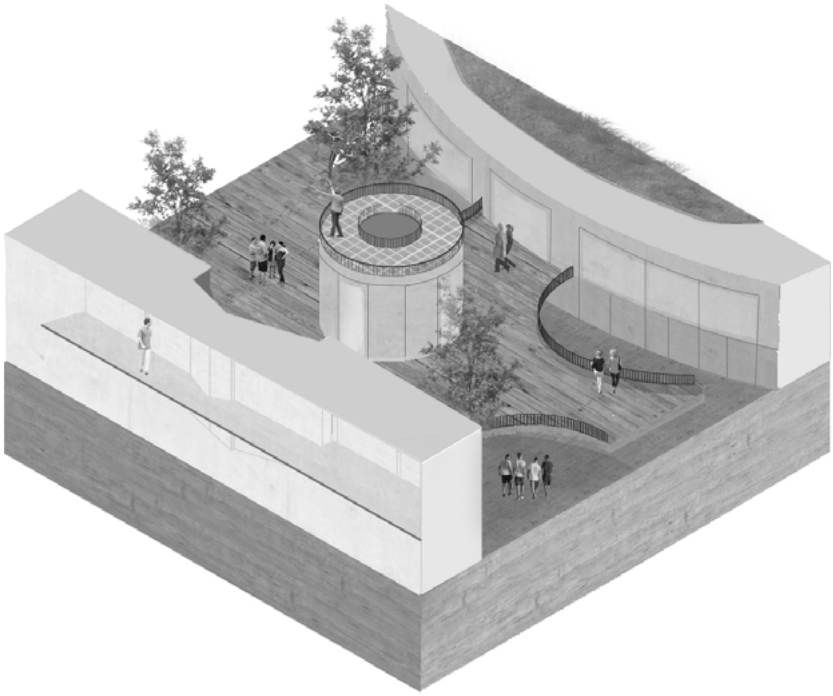


section of the public space pocket



ground floor plan of the node

view of the pavilion



rotterdam

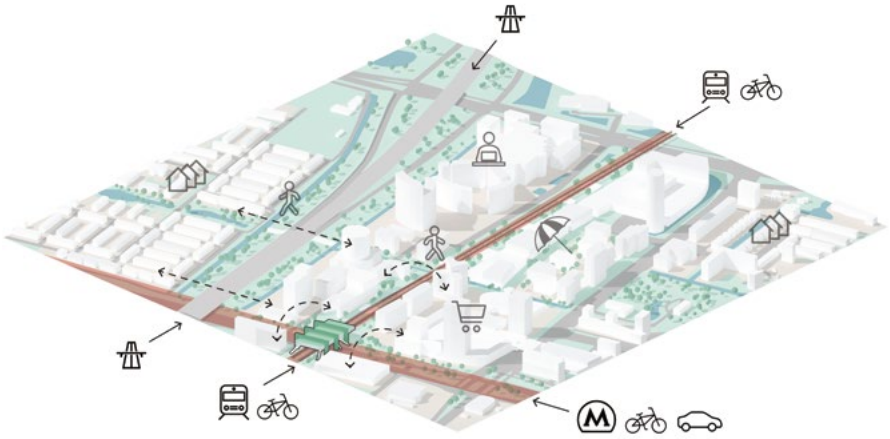
DAGMARA PISZCZ

The station Rotterdam Alexander is located at the intersection of two main transportation axes. One of them includes underground metro, street with four lanes and bike highway. The other one consist of bike pathways and elevated railways, which allows previously separated zones to blend together. The station marks the transition between neighborhoods and should work as a connection point.

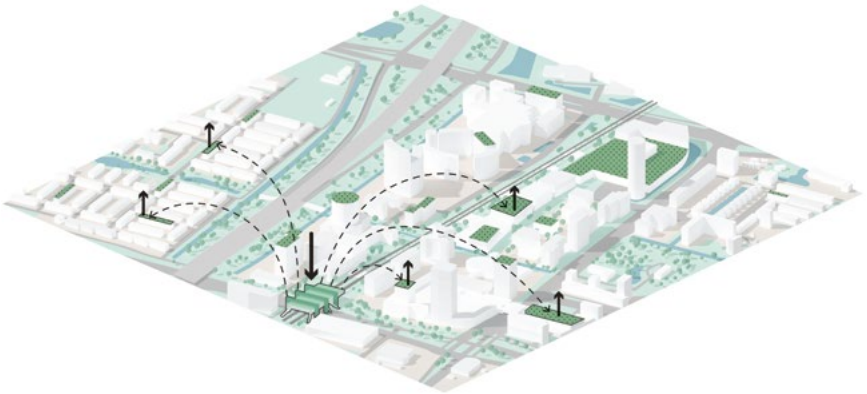
The main characteristic of the current Alexander station is its lack of identity, as well as welcoming station hall. Alexander district is surrounded by green, recreational areas, agriculture fields and greenhouses.

The aim of the masterplan is to activate those areas and encourage passengers and residents to use them. For that reason the Alexander station should work as a gate to the green part of Rotterdam, and a showcase of what the area can offer. The project will be a top-down statement and will encourage bottom-up initiatives, which will activate roofs and other unused spaced at Alexander. The green learning center will inspire and teach commuters and residents about new technologies and agriculture methods, helping area to enter year of 2050 with, green pleasant neighborhood and decentralized agriculture.

The station consist of four levels: underground with metro platform, parking, water and heat storages, the ground floor, train platform on level one, level two with station hall, shops and learning center, and lastly public roof top with greenhouses. All levels are connected by escalators and construction cores with escape stairs, elevators and greenhouses at the highest part.

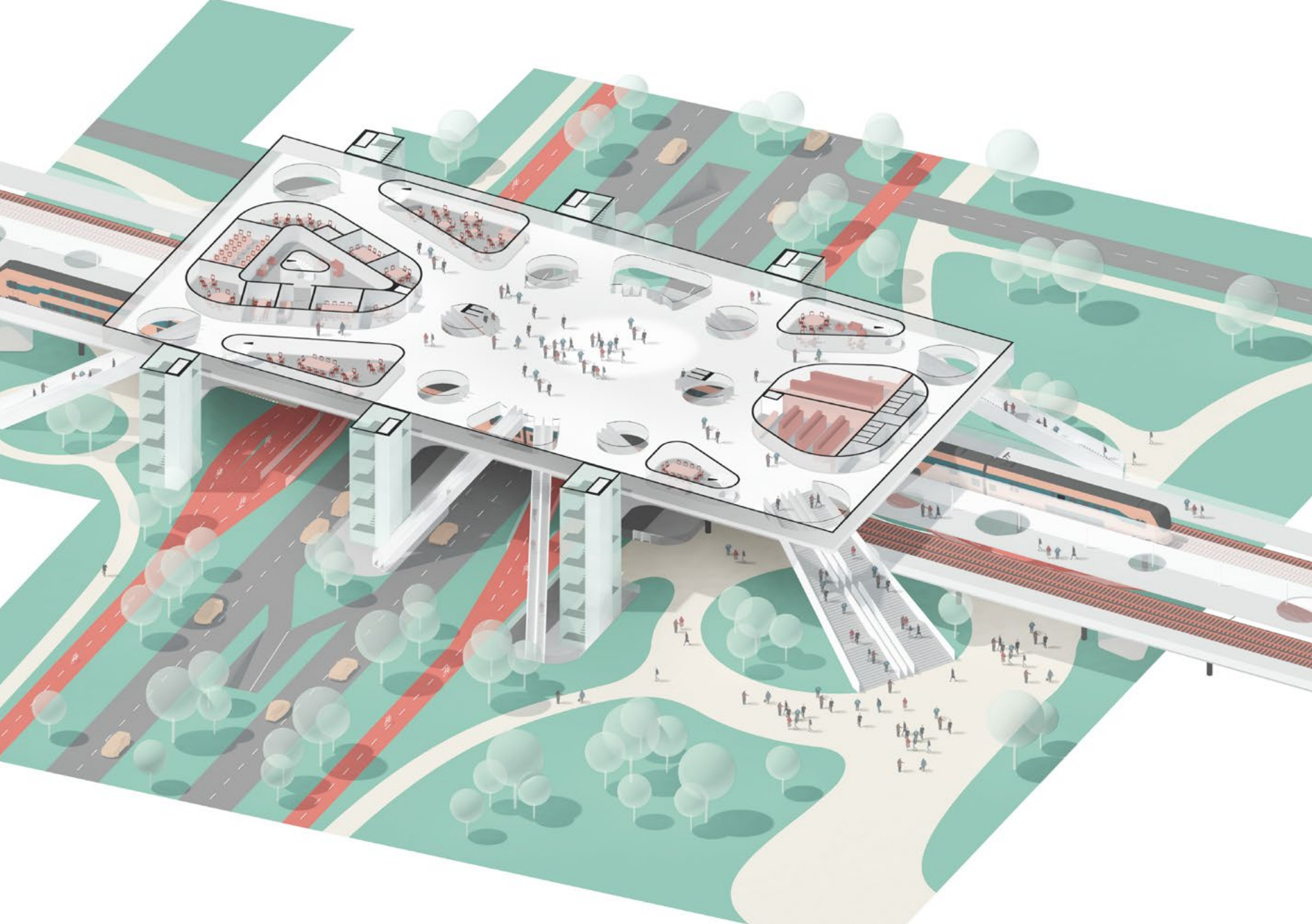


situation, connections and infrastructure

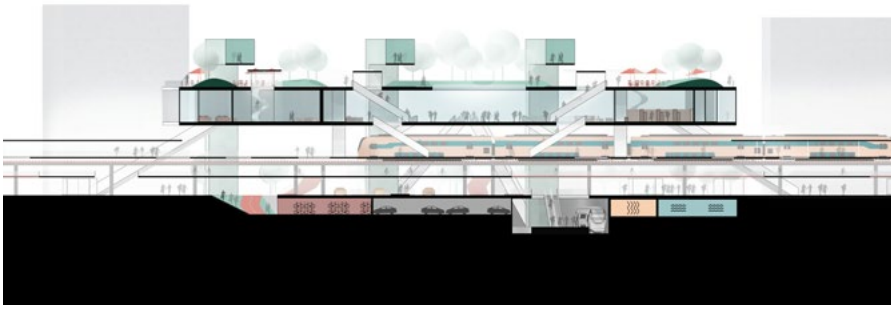


top-down project, bottom-up intiatives: activating the neighborhood

second floor: station hall

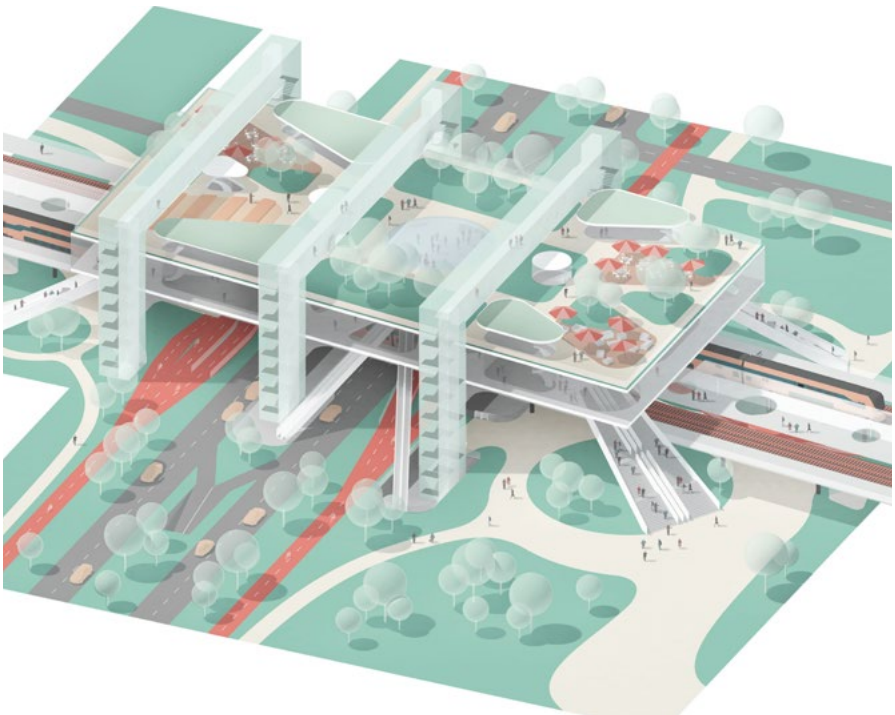


perspective from the street



section: +4 greenhouses, +3 roof, +2 station hall, +1 train platform, 0 ground-floor, -1 metro and parkings

third floor: the roof



rotterdam

JULIËTTE ZEGERS

ALEXANDER HUB

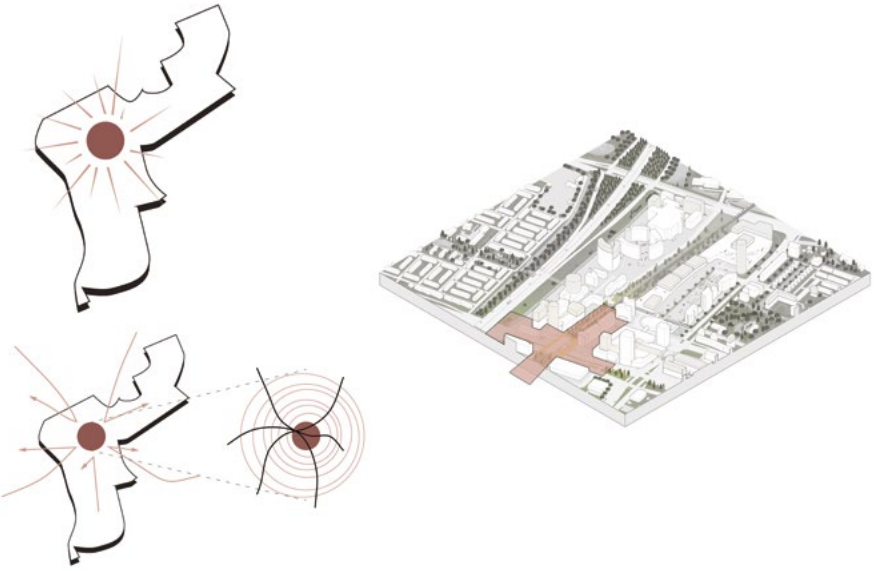
Alexander Hub is a vision on a possible future for the area of Alexander Rotterdam. The concept of the design rests on the idea of developing a new ‘city center’ around the station.

In this idea, the station will function as a welcoming gate for visitors from the outside of the city on a bigger scale. If we zoom in, the station will become a prototype or example for the place itself and the directly surrounding areas in order for them to develop, due to a positive ripple effect.

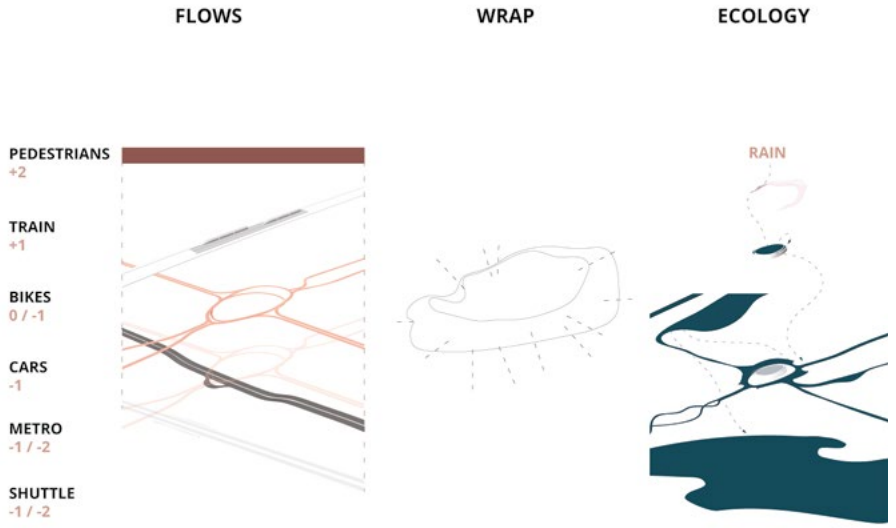
The design concept is the result of combining problem statements of the area surrounding the station with needs of future people:

– Spark activity. Adding suitable program in the area around the station.
– Manage flows. Facilitate the new (faster) modes of transportation technology is bringing.
– Create identity. The station has to be an icon, something to be proud of.
– Improve ecology. Alexander of the future is sustainable in multiple ways.

This results in a design of the future where the station is an identity bringing icon. It is a connection, a bridge, the glue to bring all future systems together in order to fulfill the needs of future people: Alexander Hub.

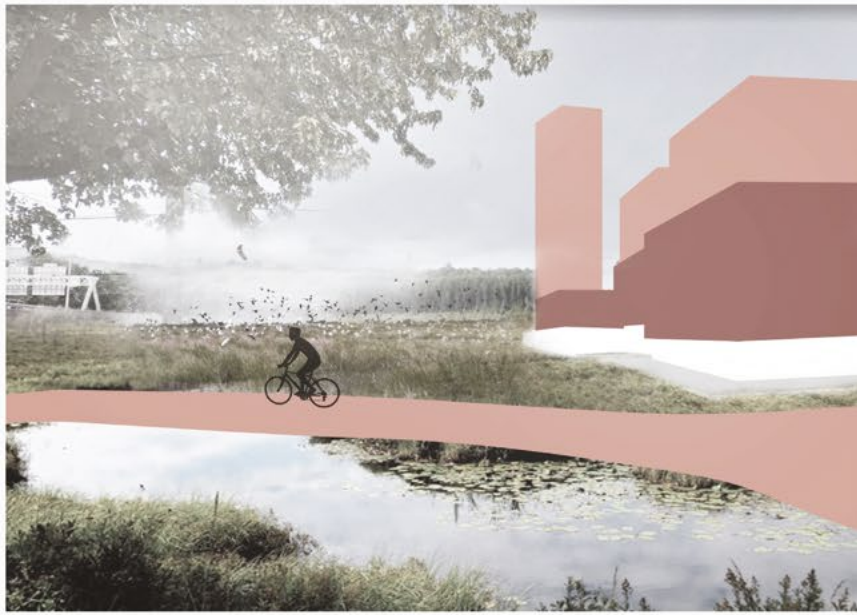


a new ‘city’ centre

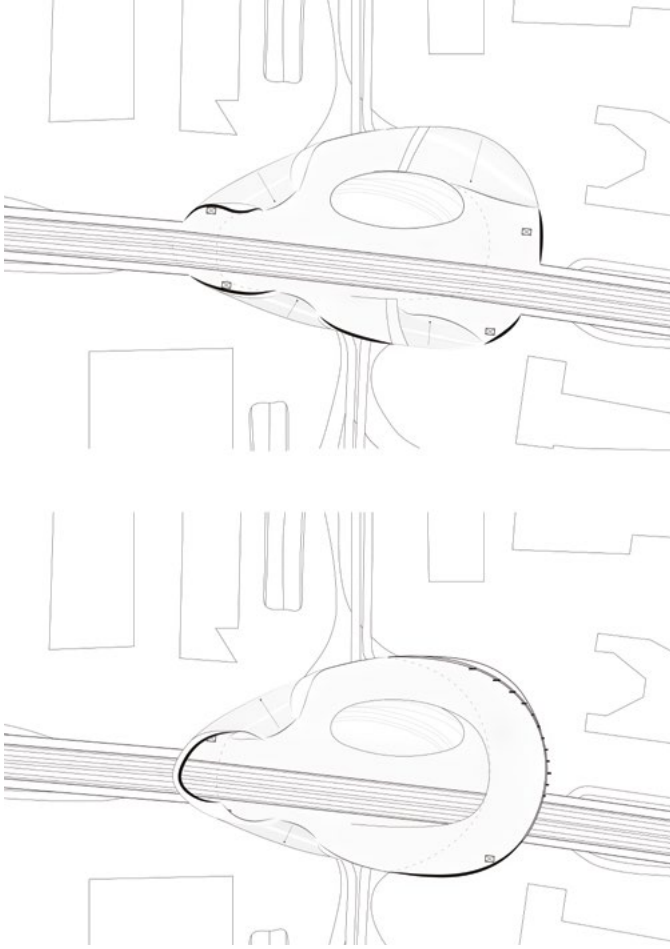


concept

spark activity

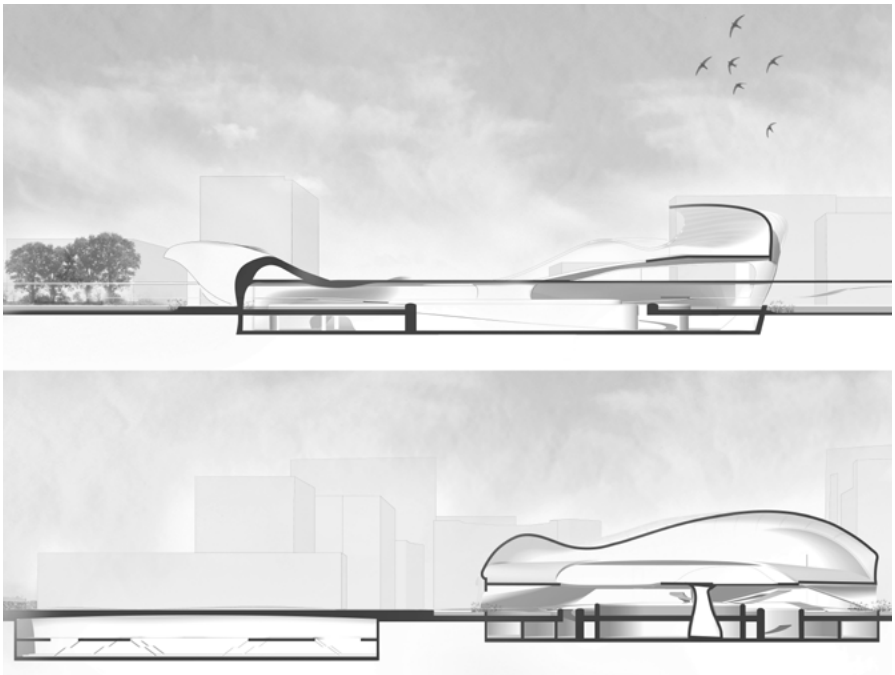


pedestrian, bike, train and car perspective



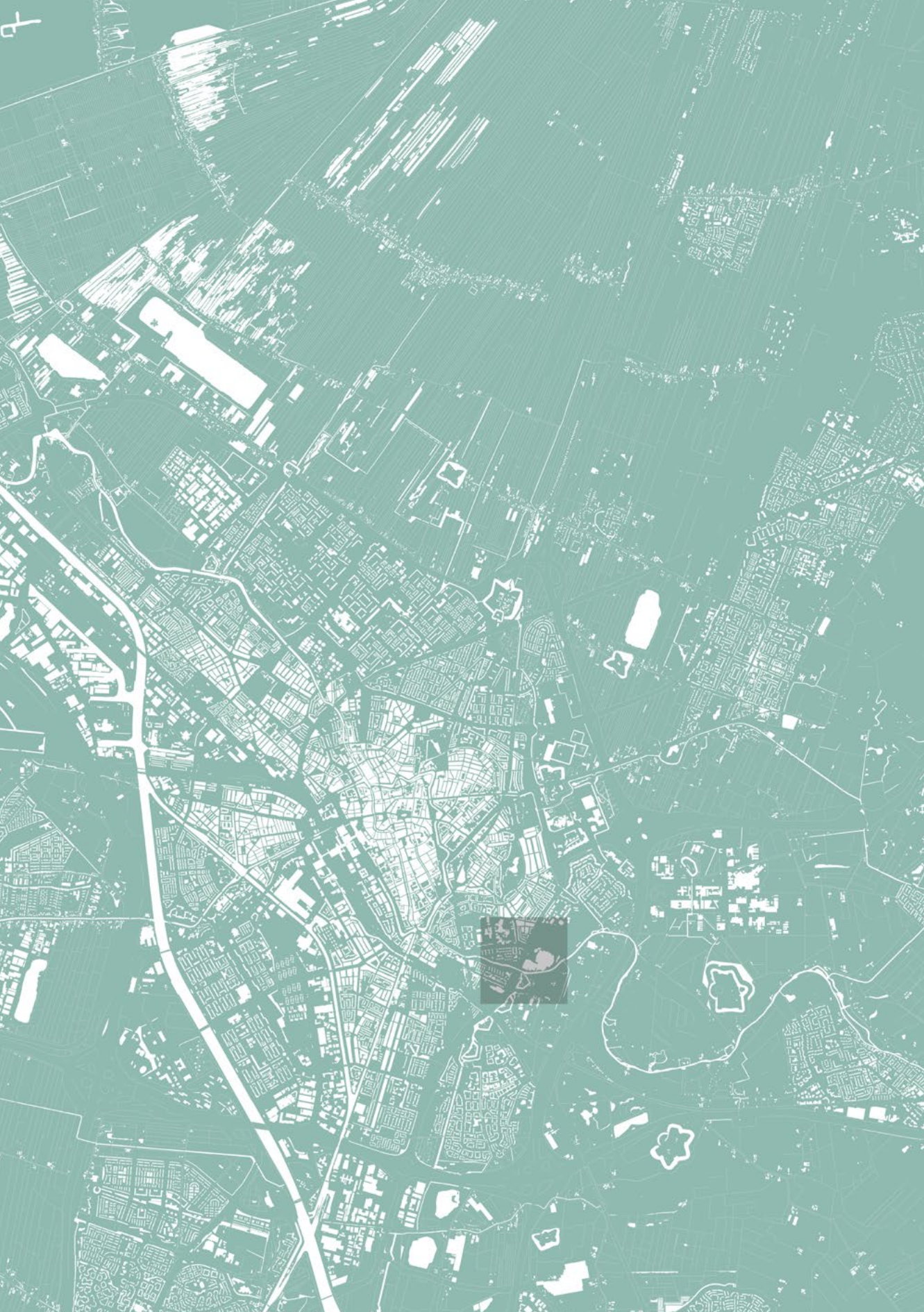
first and second floor plan

cross and longitudinal section



design phase

UTRECHT



utrecht

INTRODUCTION

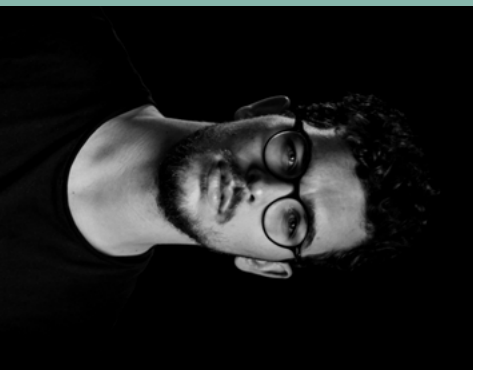
STADSRAND OOST

The Waterlinieweg, a part of the Dutch inundation zone, functions as the west border of the area and historically draws the line between the city and surroundings. At the other sides the borders are the A27 and A12. Even though the area has rich cultural and ecological value, these qualities are not really tangible nor visible.

Looking at the growth of Utrecht together with the densification of the existing city we find there are opportunities for the area to become a metropolitan living-working-nature-recreation landscape. This means that it is important to design a landscape that brings back the cohesion and makes the cultural historical layers tangible again. This is a green area in the east of Utrecht and is dominated by functions that belong to a city border: sport fields, city gardens, but also functions that could not find space somewhere else like barracks and a stadium.

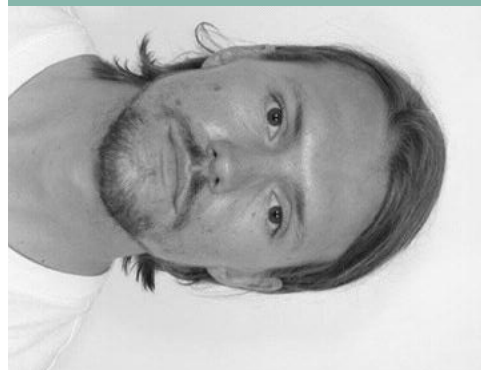
The design brief seeks possibilities for a better social mingled area by, amongst other tools, offering more low rent dwellings. In order to make Utrecht more meaningful as a city in general it is important to redefine the connections within the city. Heavy infrastructural lines that divide more than they connect have to be reconsidered.

Philipp
WENZL

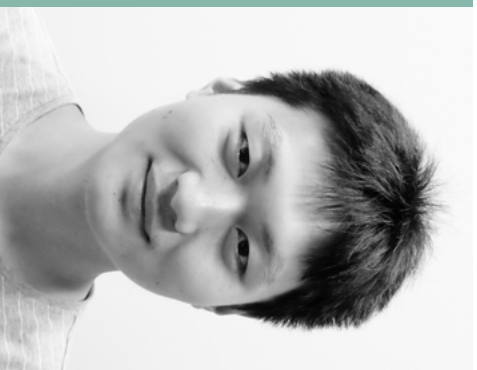


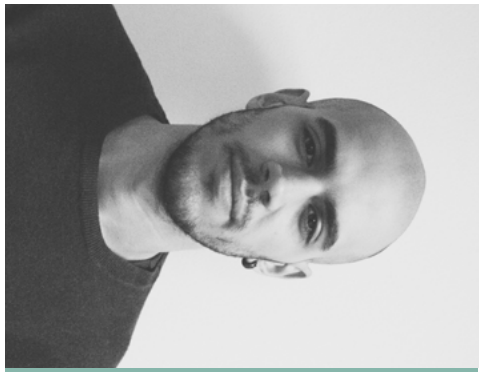
Danica
MIJONIĆ

Sebastian
ANDERSSON



Huadong
ZHU



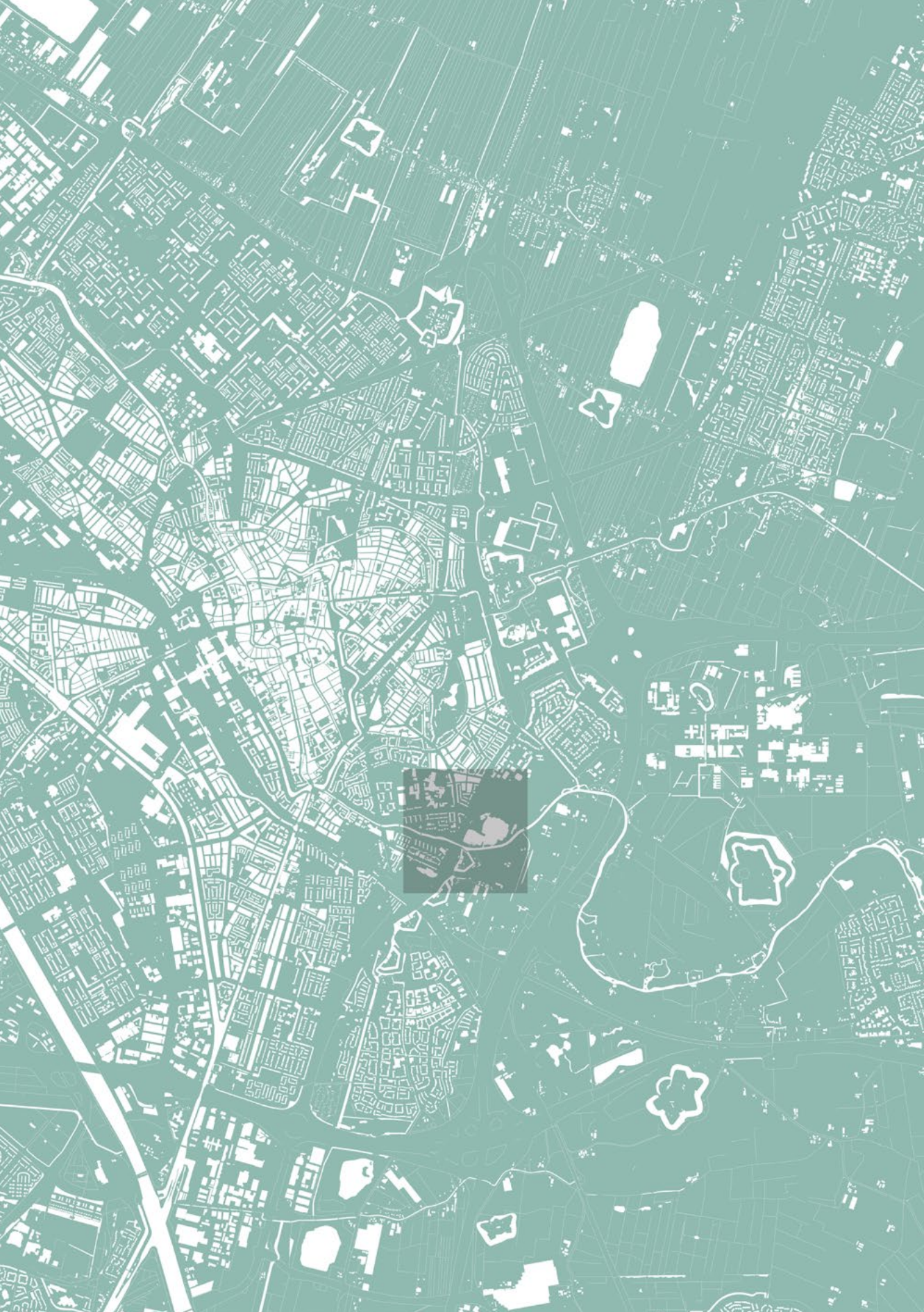


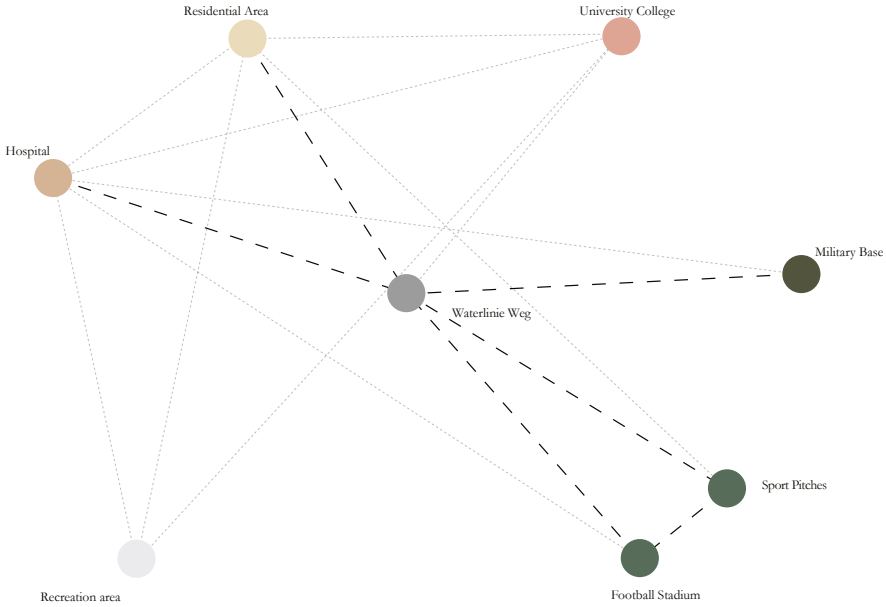
Riccardo
SFORZI

Nikos
CHRISTOPOULOS

utrecht

ANALYSIS

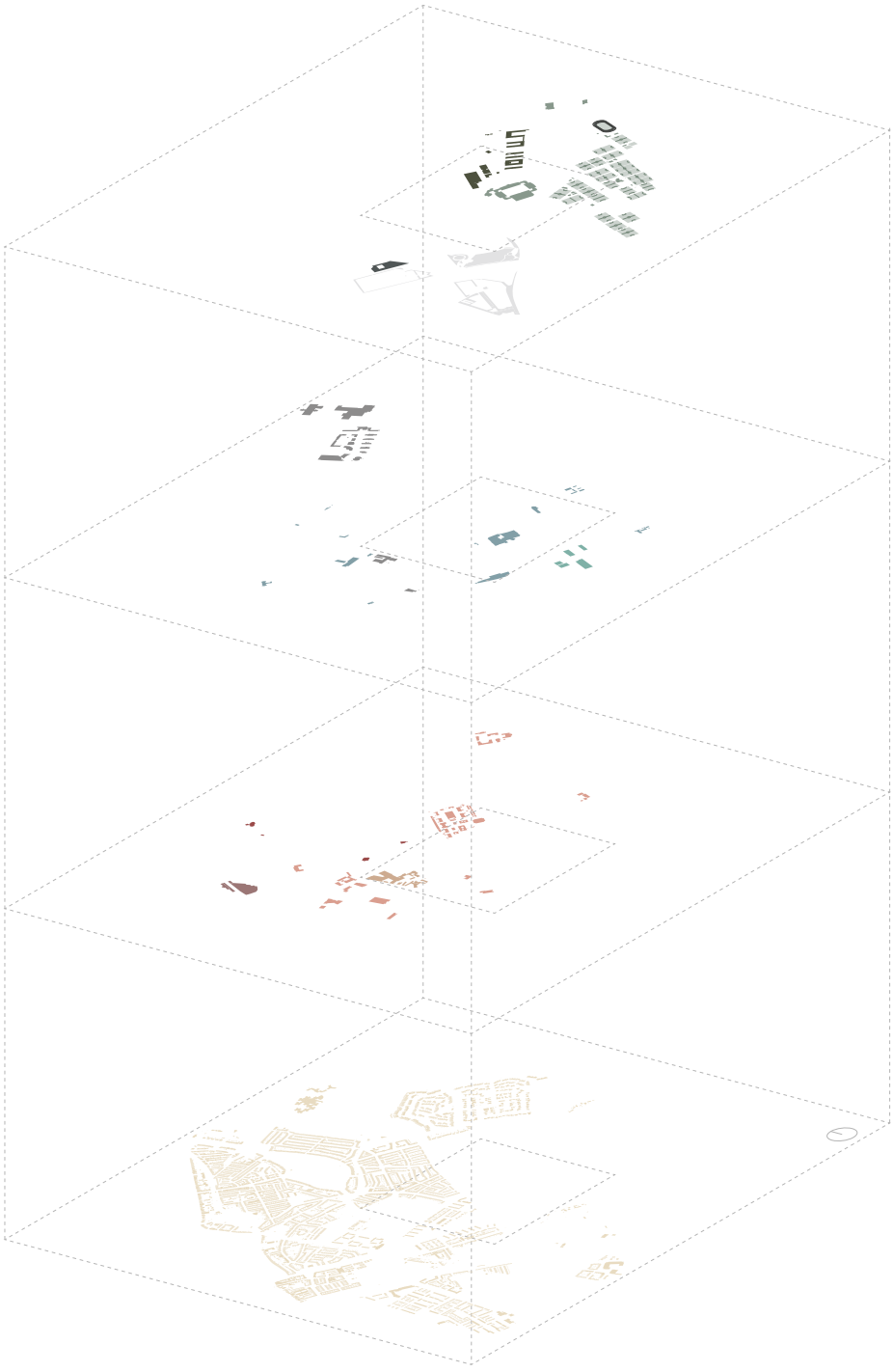




connections

traffic pressure

urban fabric: the growth of Utrecht, 1940 (l), 1975 (r) and 2010 (top)
following the development of highways



Sportsfield

Sports

Prison

Military

Cemetary

Offices

Green House

Commercial
(Retail & Hotel)

Station

Hospital

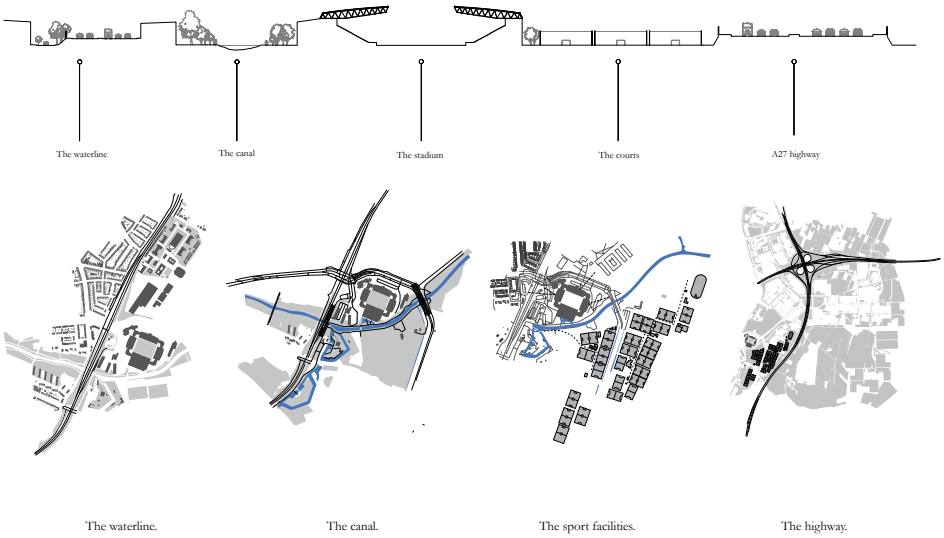
Church

Education

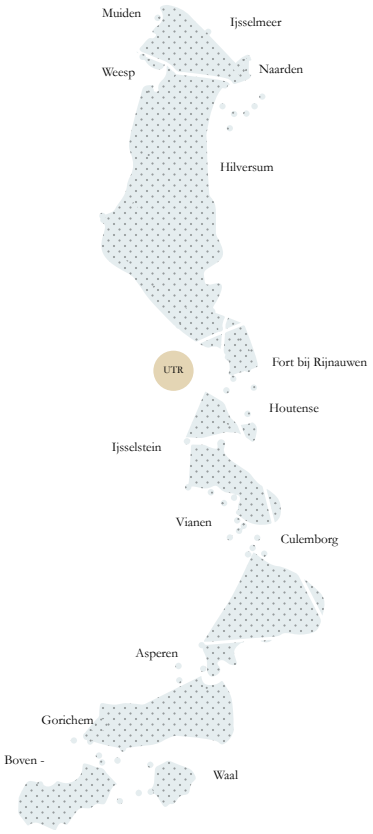
Dwelling

missconnection: physical segregation

misconnection: people and environment and social seclusion

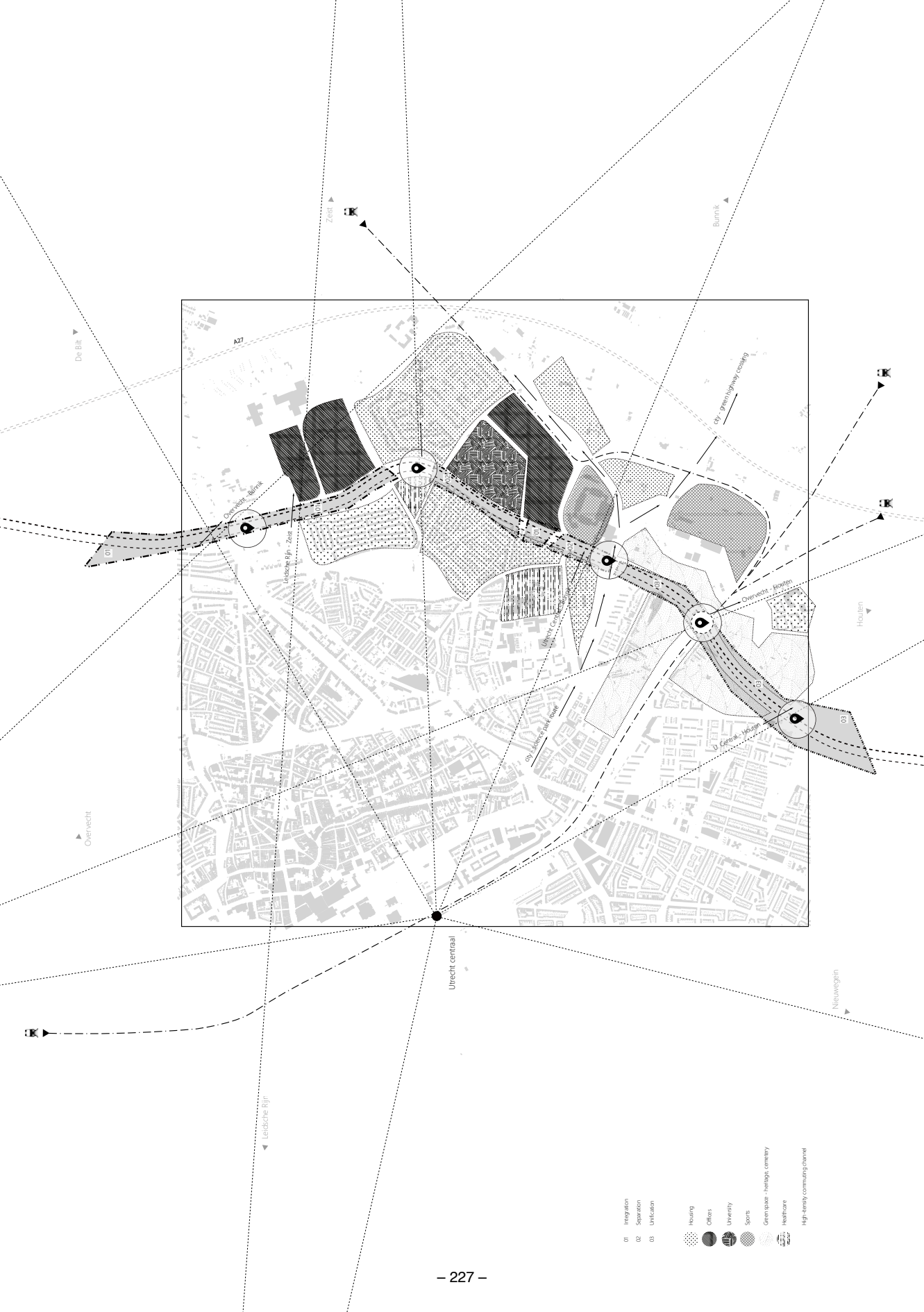


urban sections: barriers characterise the aspect and image of the area



the New Hollandic Waterline: Utrecht region

surrounding functions: integration-separation-unification


Zeist
Bunnik
De Bilt
Houten
Overvecht
Nieuwegein
Leidsche Rijn
Utrecht centraal
A27
Overvecht - Bunnik
Leidsche Rijn - Zeist
Utrecht Science Park
Overvecht - Houten
U Central - Heiman
city - green highway crossing
city - science park - river
01 Integration
02 Separation
03 Unification
Housing
Offices
University
Sports
Green space - heritage, cemetery
Healthcare
High-density commuting channel

utrecht

PERSONAL PROJECTS

utrecht

SEBASTIAN ANDERSSON
NIKOS CHRISTOPOULOS
RICCARDO SFORZI

COMMUNIS

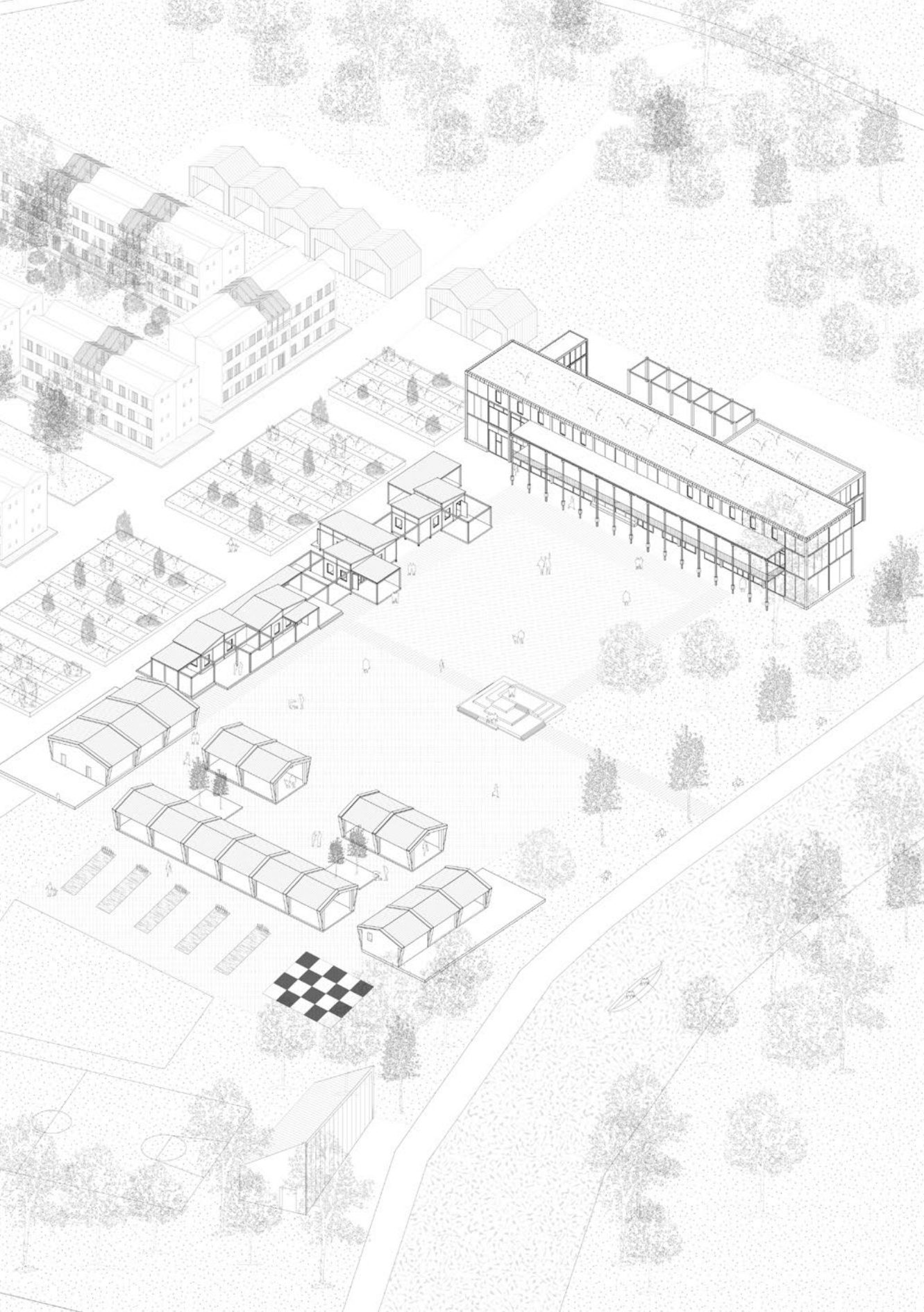
Communis is a project addressing the existing misconnections of Utrecht Oost. It does this by a putting a great emphasis on public space, community participation and a closing relations to the surrounding nature.

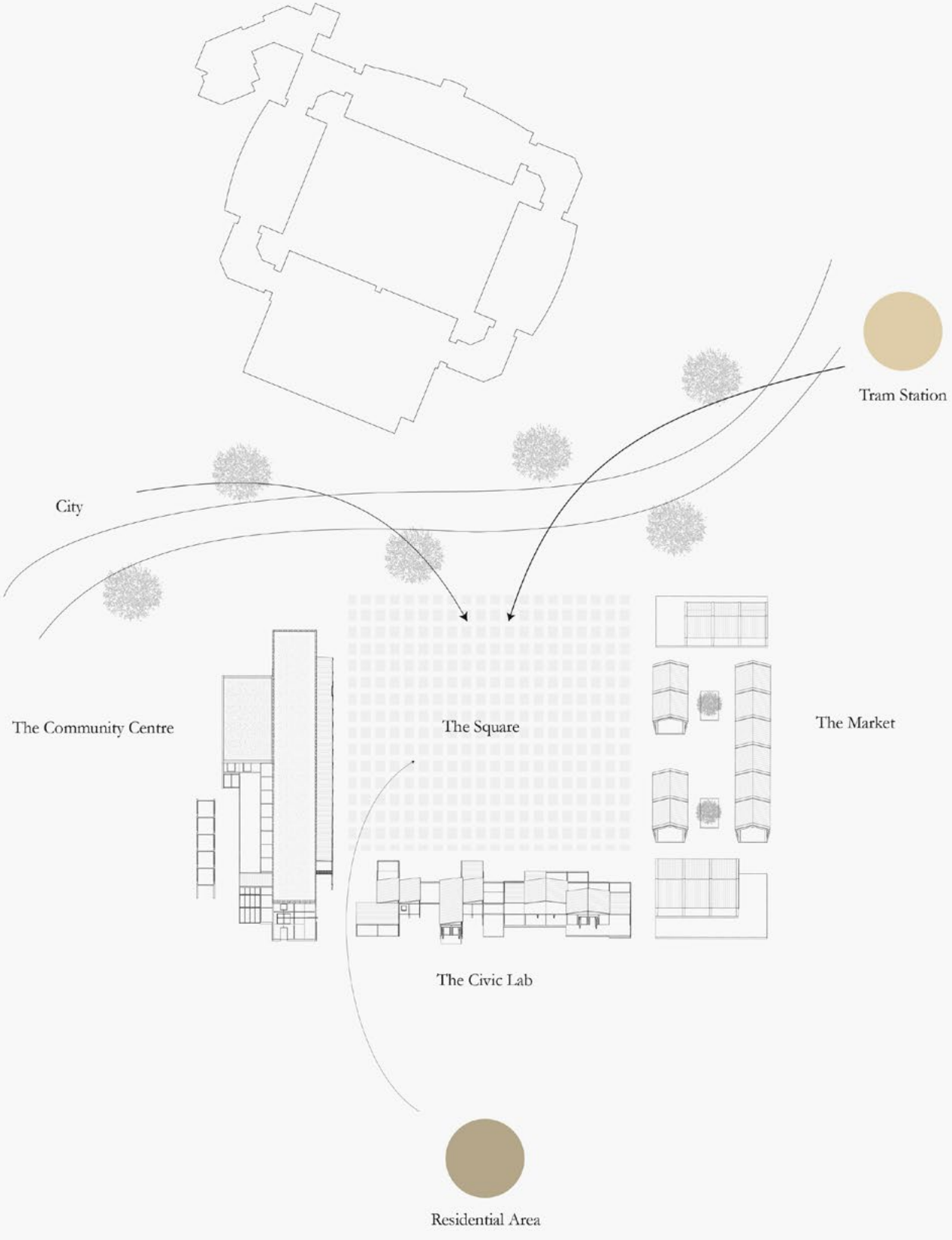
The project is intended to create value for Utrecht Oost by offering the aforementioned qualities as a characteristic not only non-existing today, but also with the future in mind.

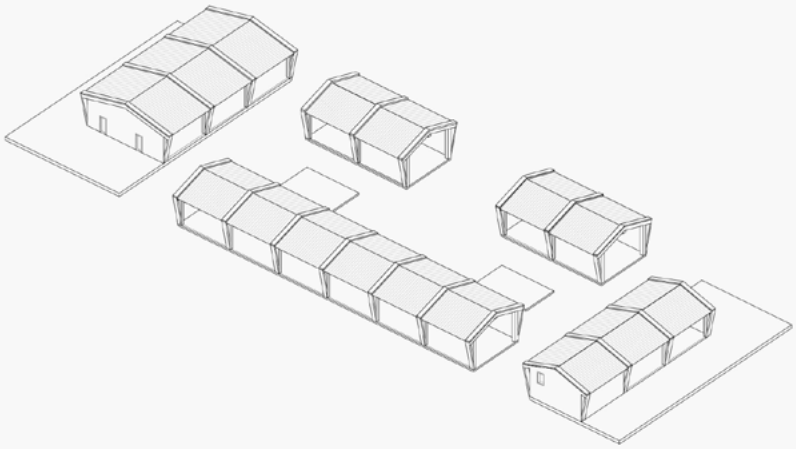
image description

situation

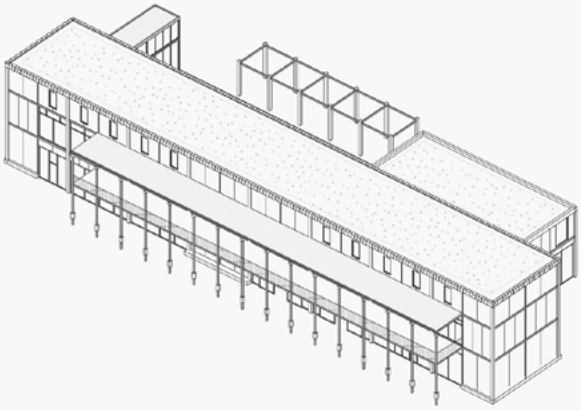
masterplan



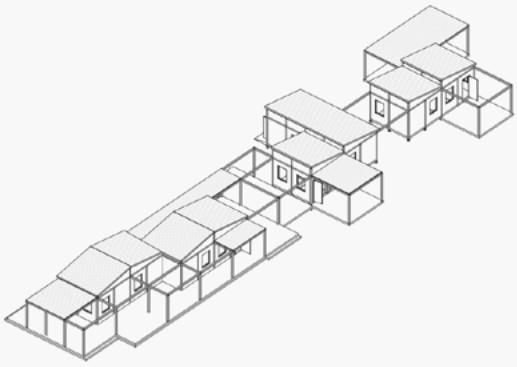

Tram Station
City
The Community Centre
The Square
The Market
The Civic Lab
Residential Area



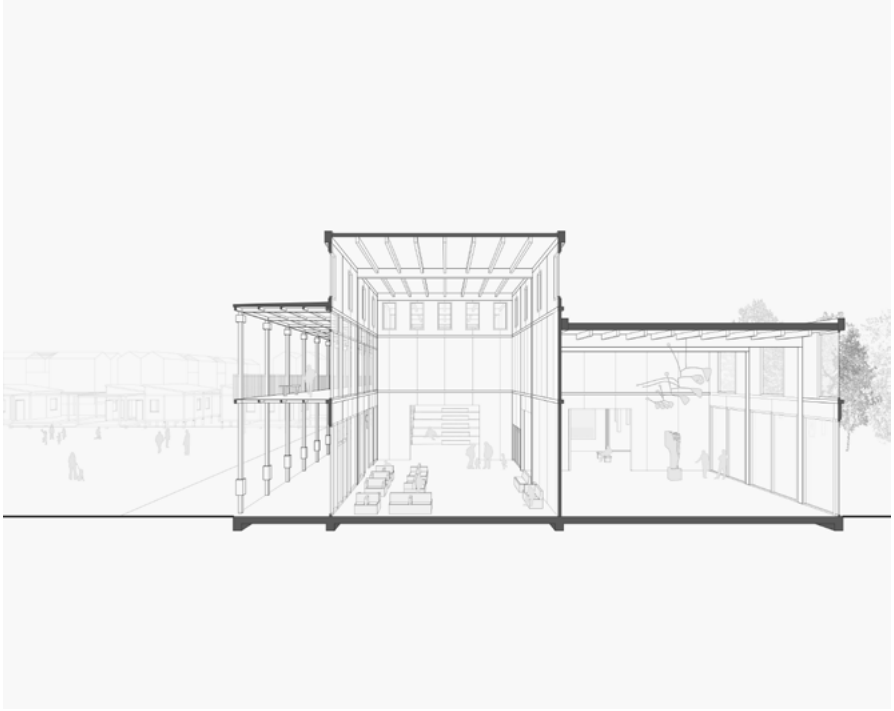
The Market



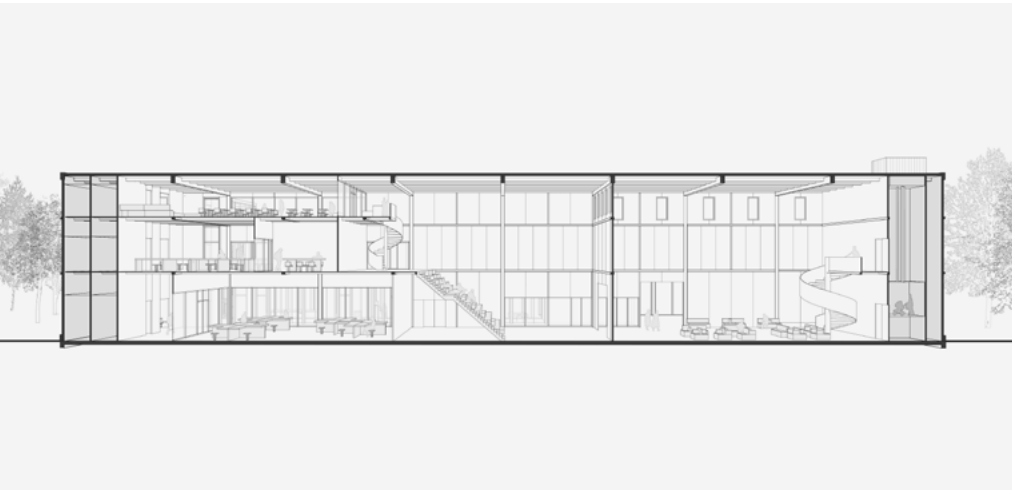
The Community Center



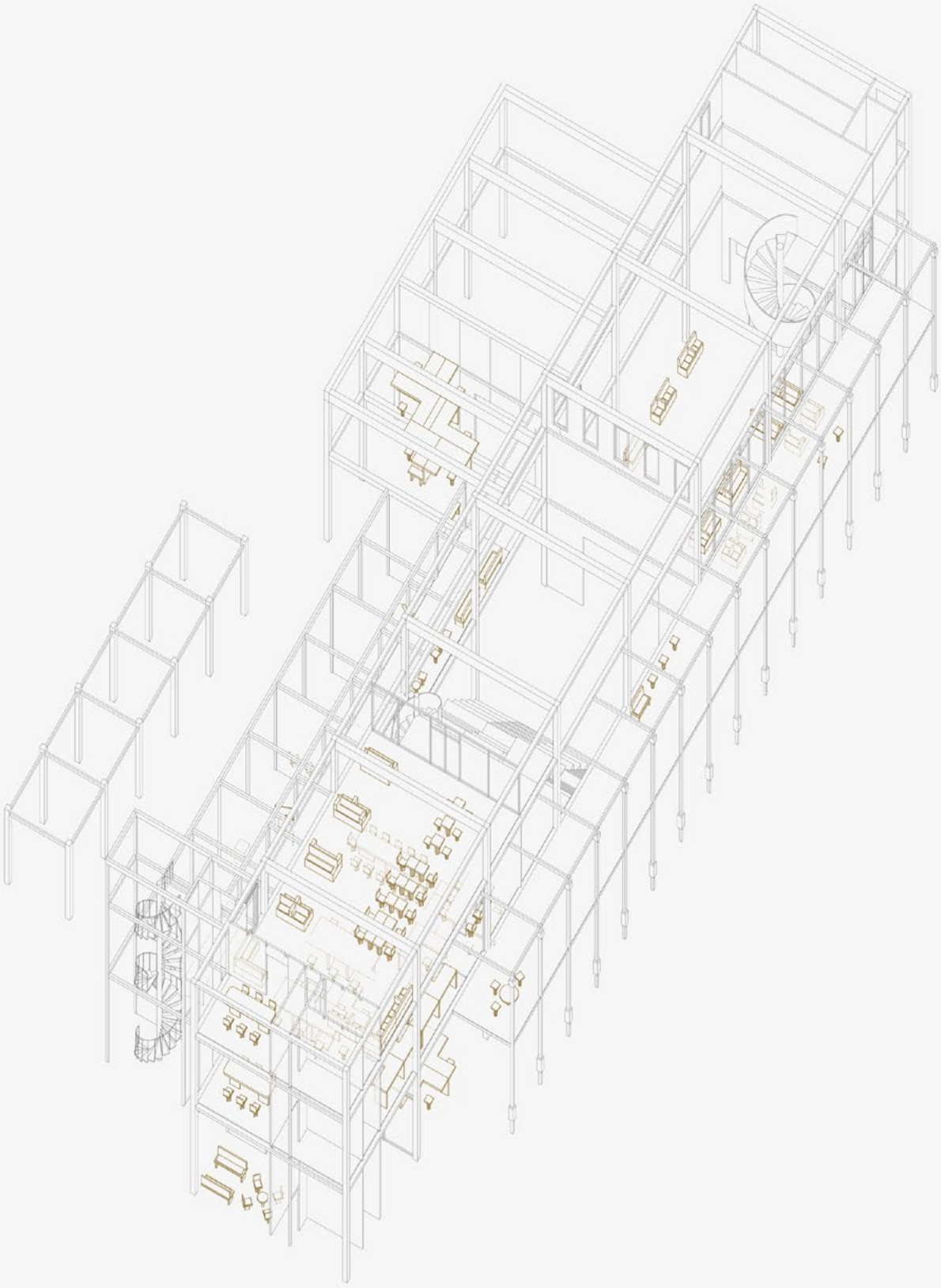
The Civic Lab



section 1



section 2



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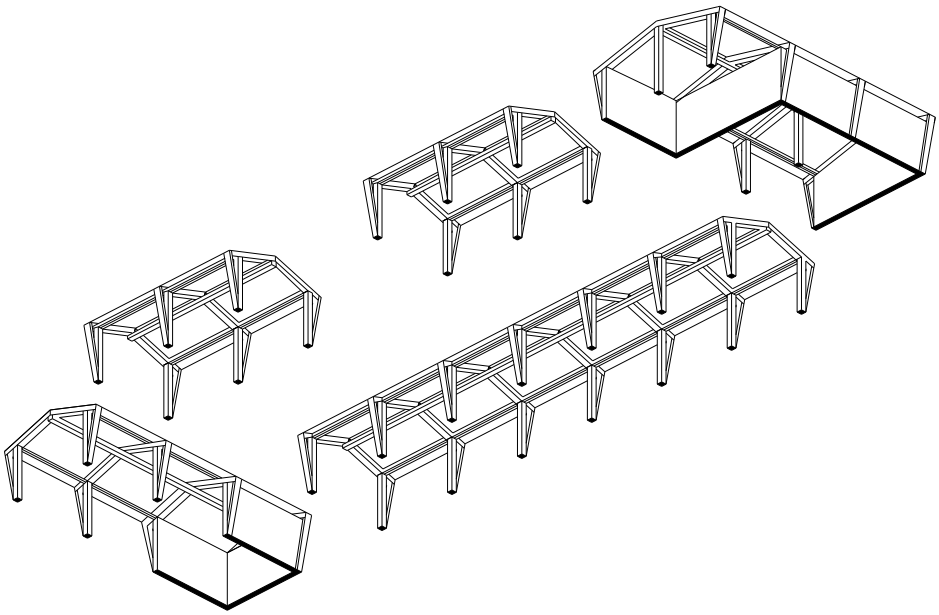
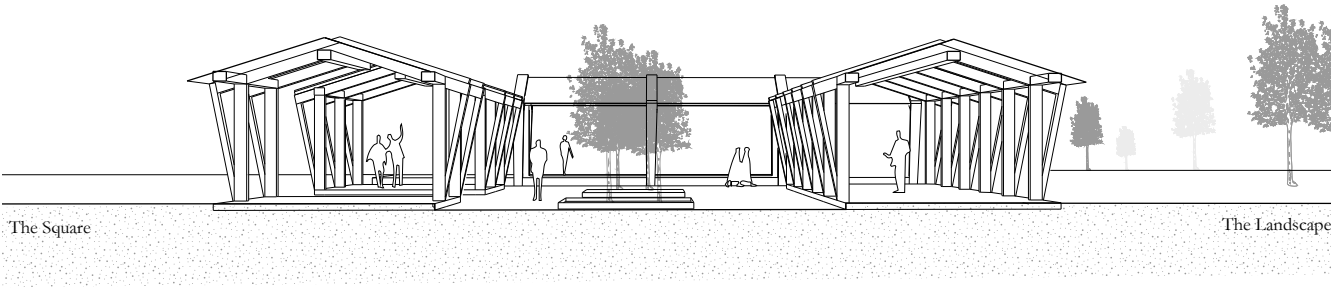
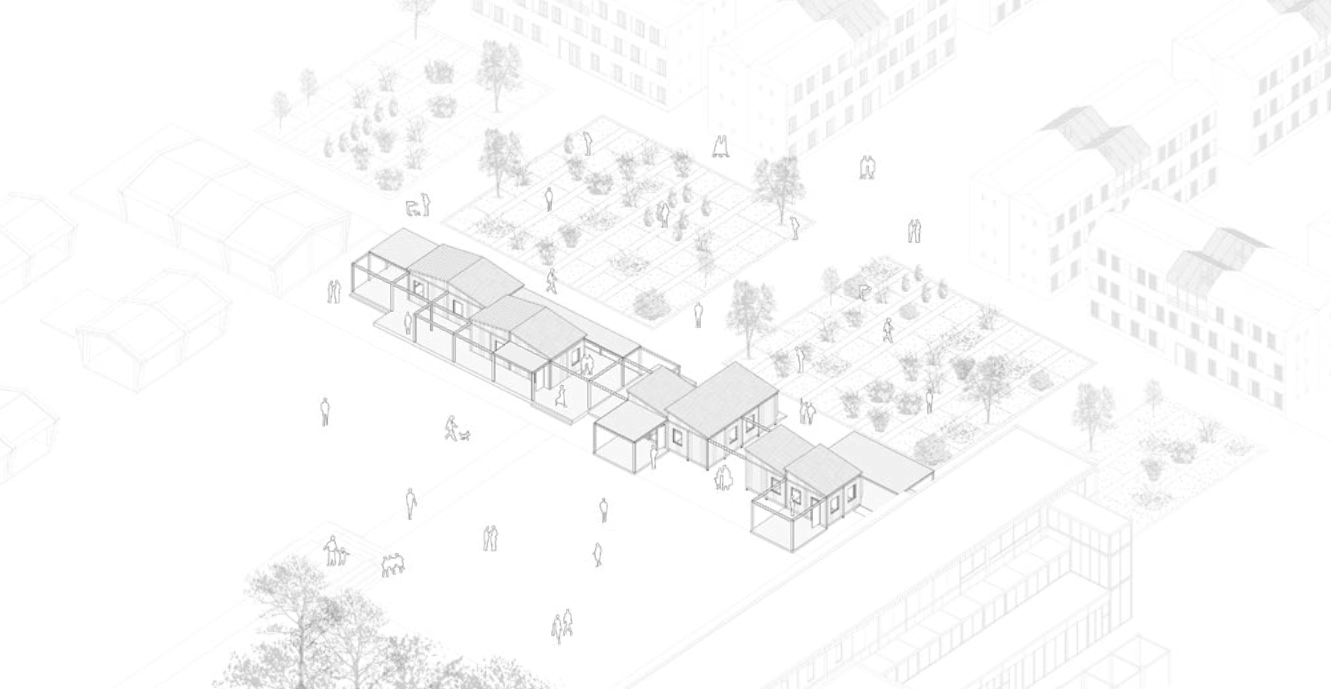


axonometry structure

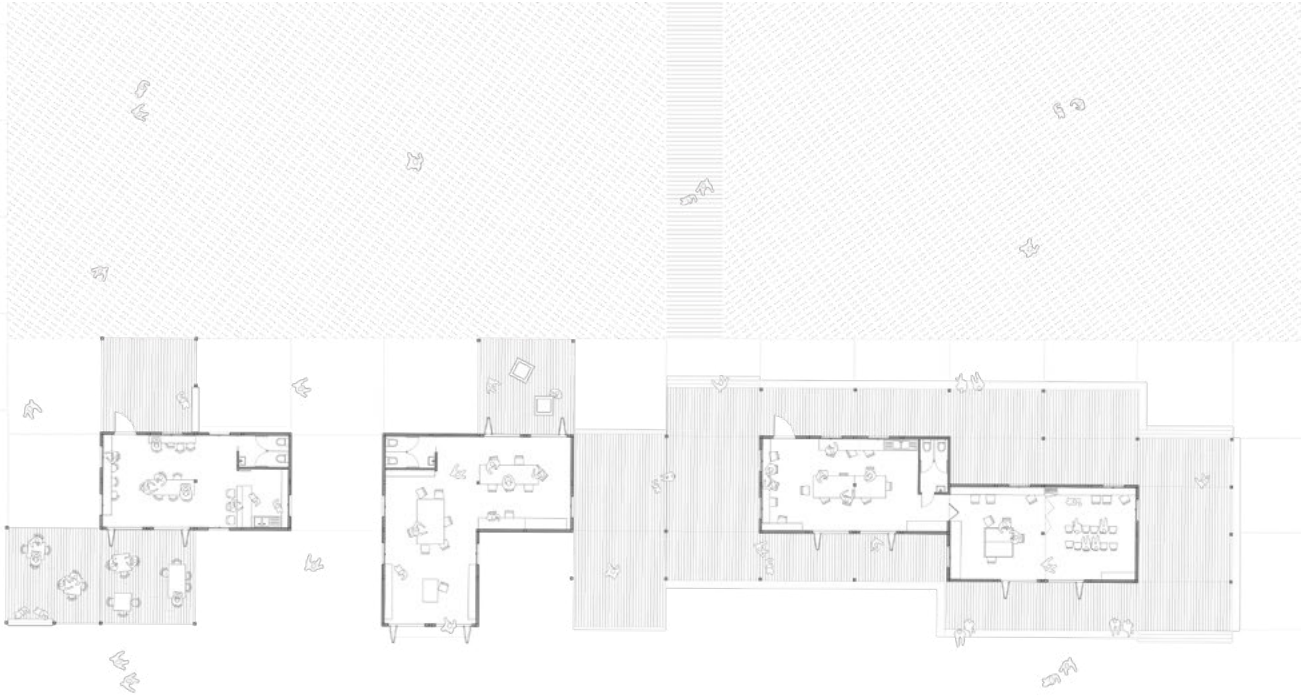
section





axonometry civic lab

floor plan



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DANICA MIJONIĆ

THE URBAN CUT

Two types of intervention occur: the interventions regard the entire Linielandschap (Waterline landscape) on one hand, and are Utrecht-specific on the other.

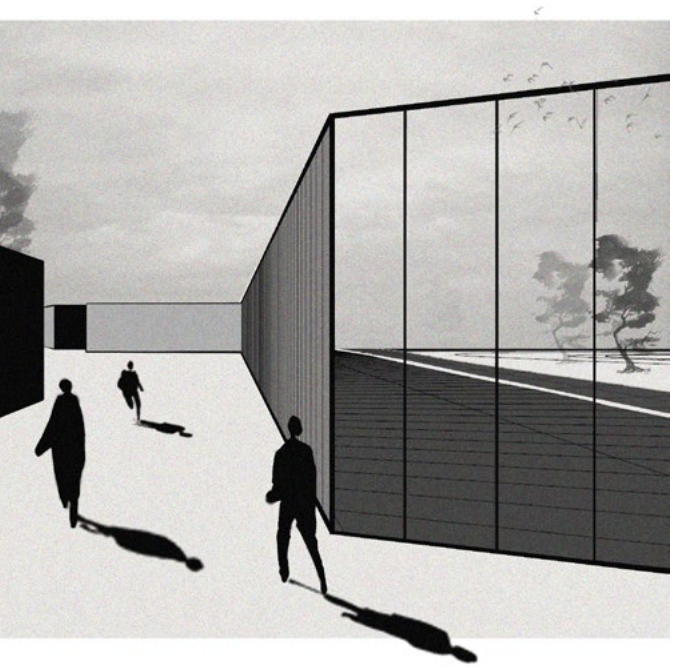
The Linielandschap intervention considers affirming the energy saturated Waterline belt. It does so by introducing walking and cycling routes along the Waterline and introducing buildings/pavilions with a cite-specific function. The Utrecht-specific intervention includes establishing a continuity of green space, by connecting the Waterline green belt with the existing flora and fauna of the forts. Whatsmore, multiple observation points are created which enhance the connection of the user, landscape and existing biodiversity. A building is introduced, in charge of health, sports and recreation.

A shift was made from the Waterline as a barrier to the Waterline as a possible connection. The adjacent neighborhoods were identified, as well as the possible connections between them. The place where those connections intersected with the Waterline were mapped as future points of interest. Secondly, all the functions at both sides of the Waterline were mapped. Three types of relations were named:

01 Two distinct functions. Potential integration.
02 Two distinct functions. Mandatory separation.
03 Two of the same function. Possible unification.

The chosen site belongs to the third category – it is placed between two green areas. It doesn't lack quality, but needs to be activated and taken care of. Two new light-rail stops were introduced and connected by a 950 meter walking path which offers a variety of different spatial experiences. The path cuts through the existing terrain and guides the user towards two public squares – one in charge of leisure, and the other in charge of recreation.

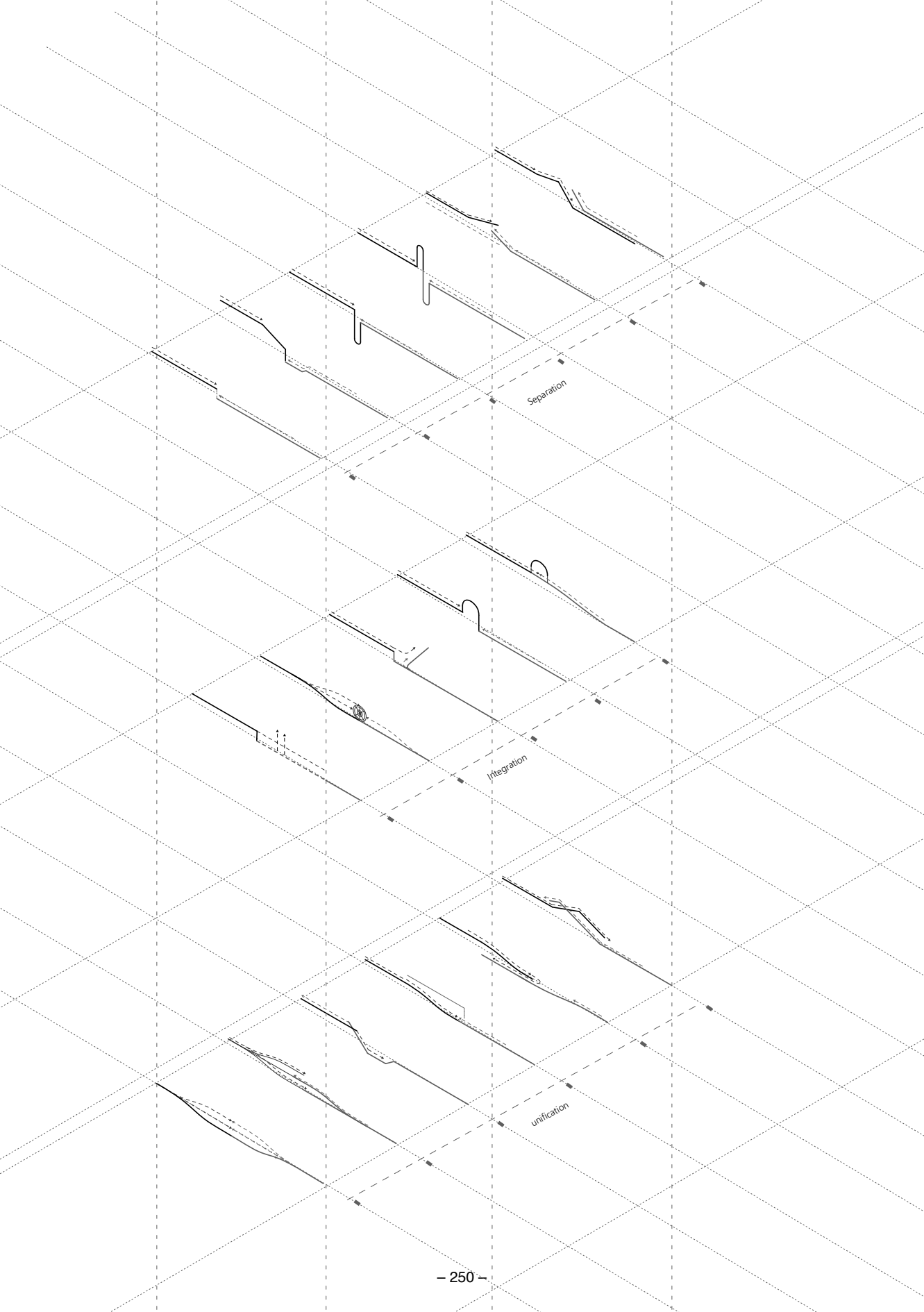
impression 1



impression 2

plan


lightrail stop 1
walking route 900m
0.00
+2.00
+6.00
walking route 900m
walking route 900m
lightrail stop 2


Separation
Integration
unification

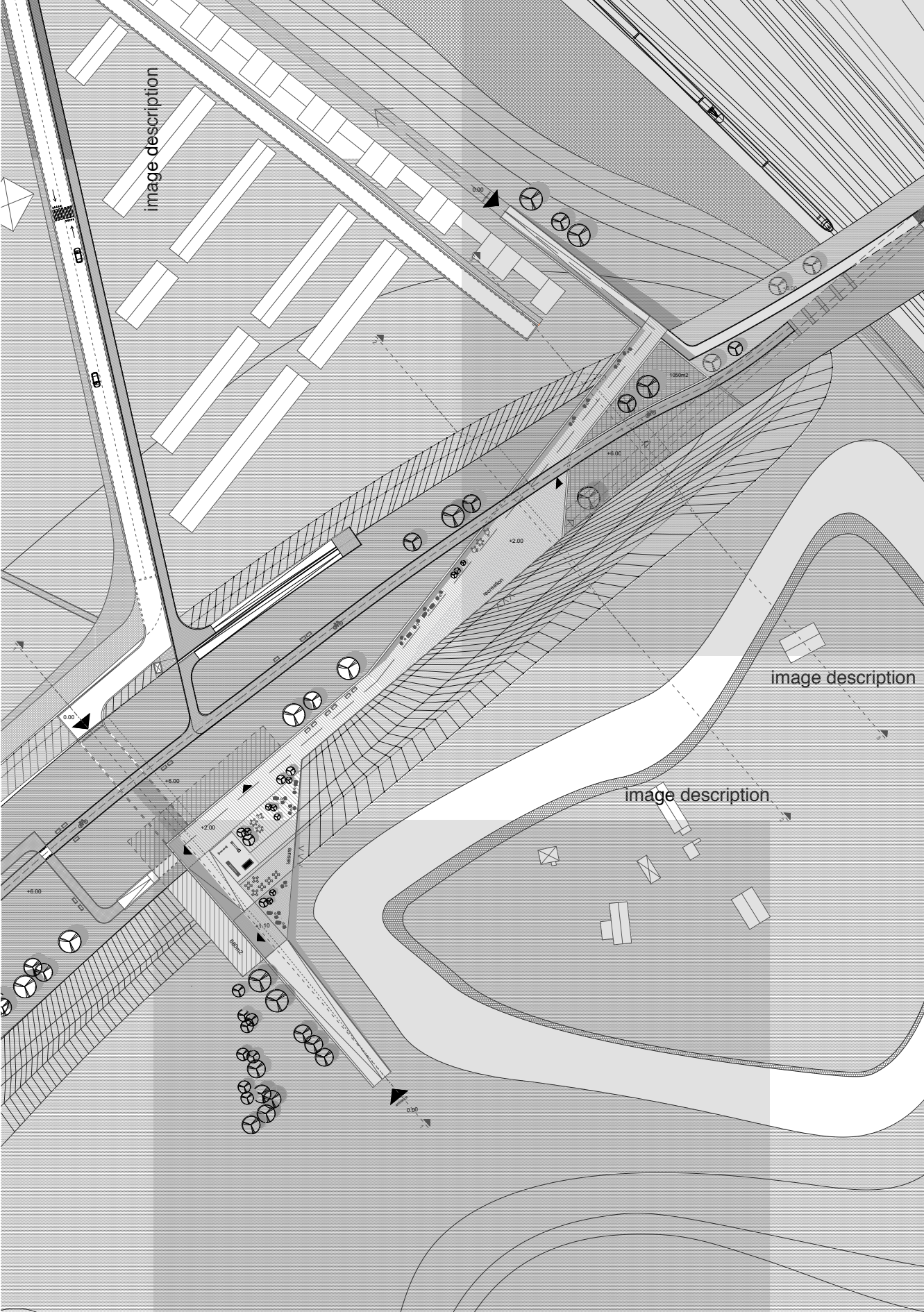


image description
image description
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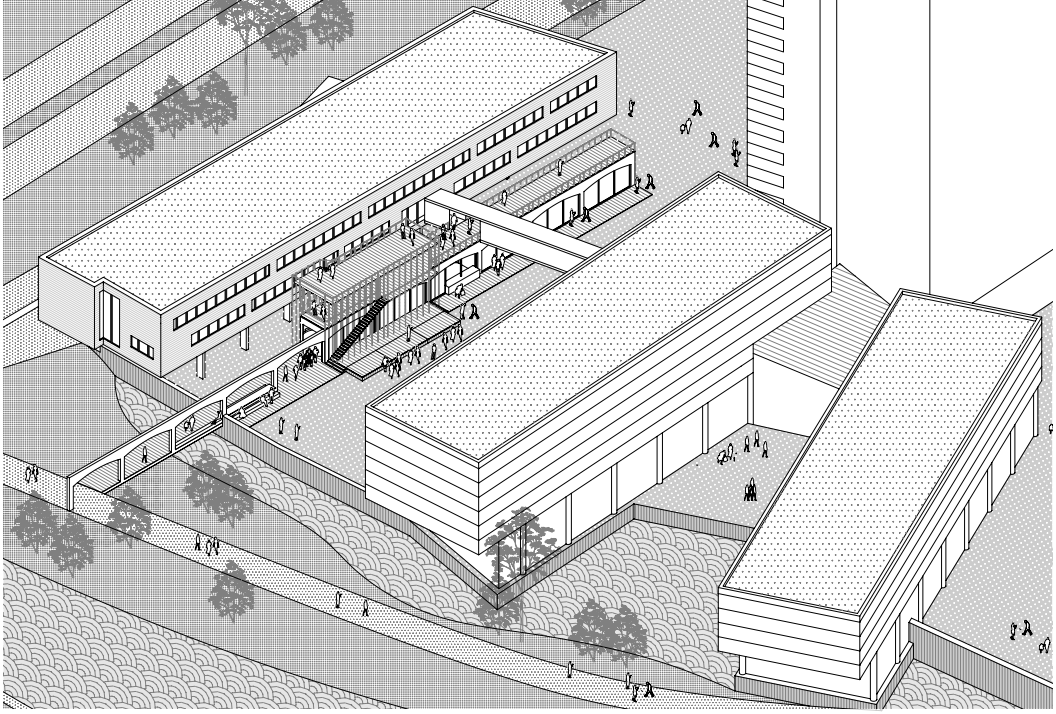
PHILIPP WENZL

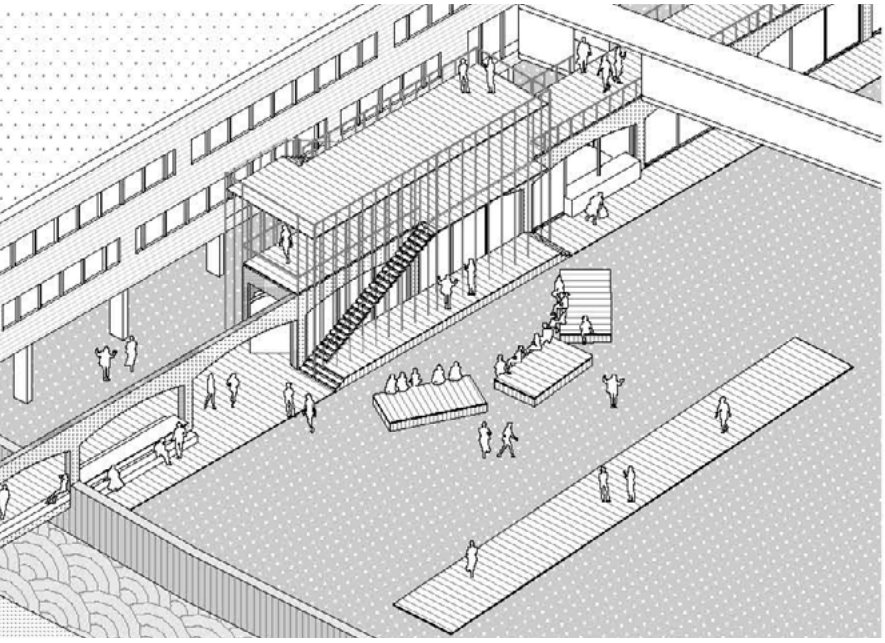
TRANSIT GALGENWAARD

The Transit Galgenwaard is dealing with spatial and social mis-connections in the eastern part of the city Utrecht. After the general urban analysis of the greater area, I wanted to focus on a cluster of office buildings, located along the Nieuwe Hollandse Waterlinie in-between the recreational area of the Kromme Rijn and the Stadium Galgenwaard. The office cluster is currently forming an inaccessible and exclusive space.

Transit Galgenwaard is reintegrating this area into its surroundings to connect spatially and socially. It links the recreational area with the office cluster, creating a dialogue between different typologies and facilitating multipurpose functions in the newly emerged plaza. A long and slender pavilion inherits a series of programmes: an event-room, a bar, a meeting room and a small co-working space. Furthermore, a public staircase is connecting the plaza level with the levels of the office buildings and allows different scenarios, such as stage settings and functioning as furniture to enjoy lunch and exchange ideas. Transit Galgenwaard creates the possibility for this particular area to adapt to prospective changes of the city and the lifestyle of its inhabitants to fit the needs of the City of the Future.



axonometry



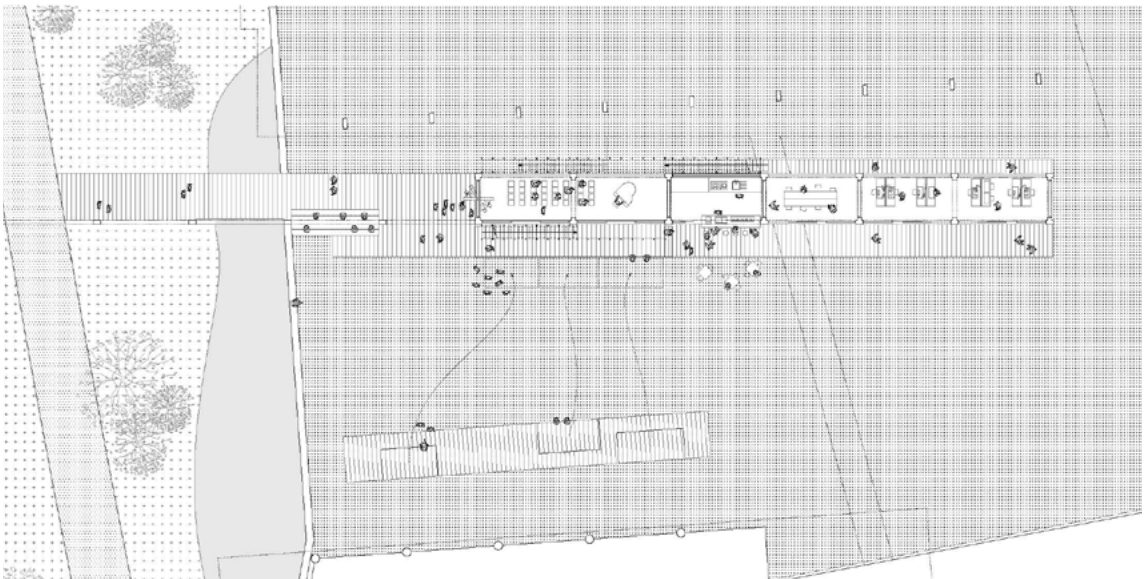
axonometry

image description

impression

façade

plan

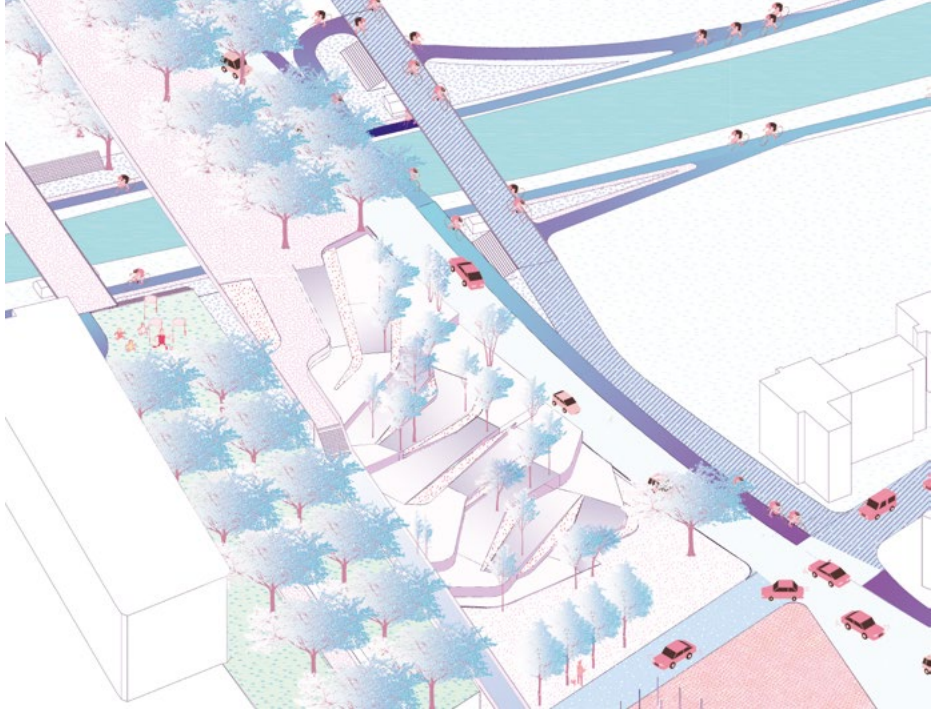


utrecht

HUADONG ZHU

THE HARBOUR

The urban infrastructure is shaped by the changing urban structure. With the development of the city, the old infrastructure, like the motorway, does not function and becomes the barrier. In the future, the infrastructure also need to face the challenge of high-tech, which brings the convenience of life but may also bring a unhealthy lifestyle. Therefore, the old infrastructure should be re-shaped to enhance the link between space and space, human and environment and human and human. The space needs to be re-programmed based on the surrounding situation and the transportation be re-organized more for the pedestrian and cycling.



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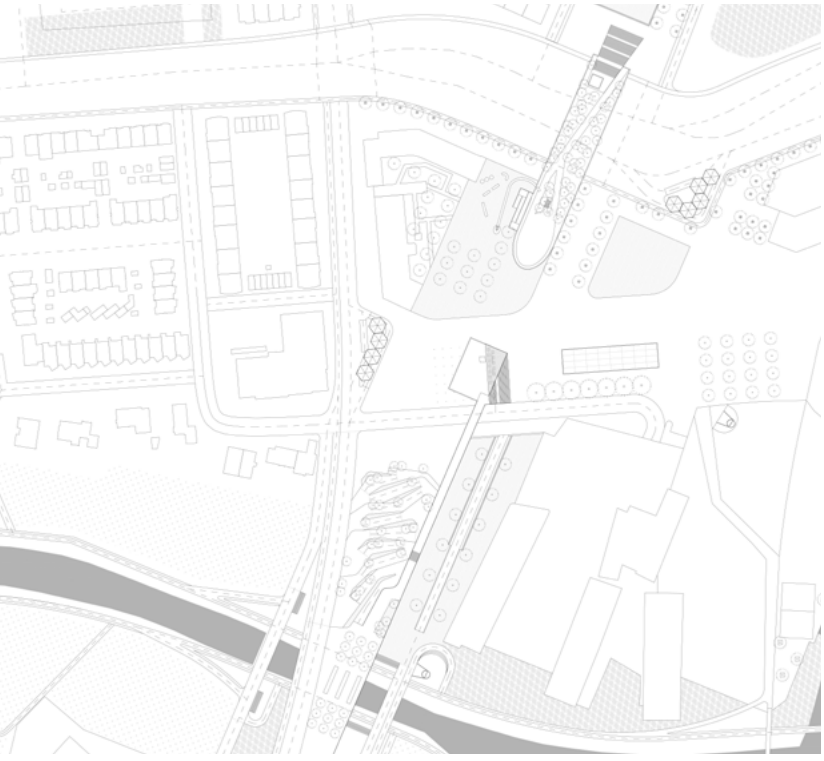


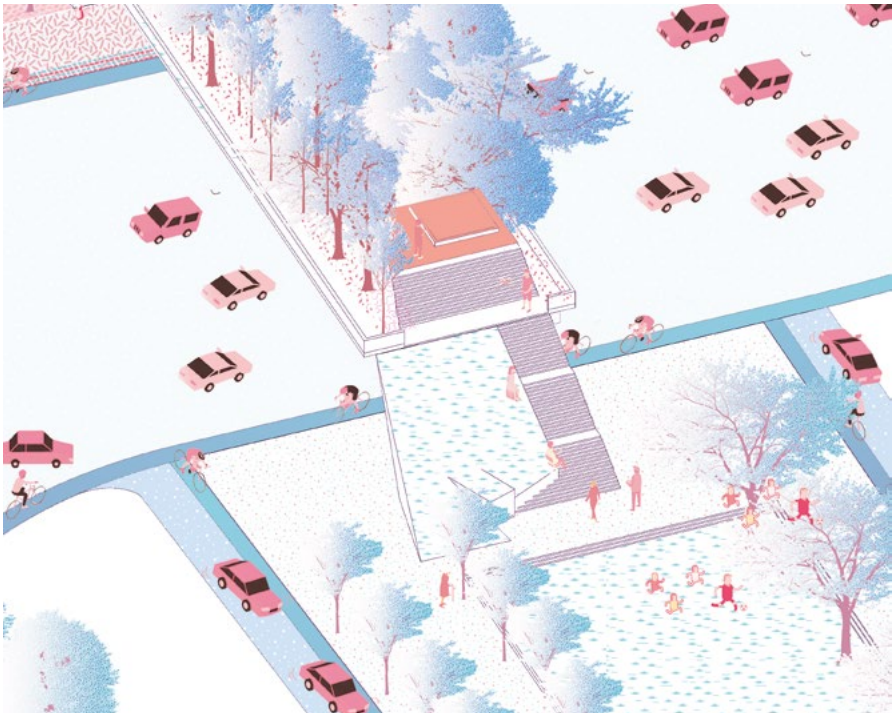
plan

axonometry

impression

axonometry

axonometry



city of the future
stad van de toekomst

STUDY TRIP

visit at the MIT media lab

Boston City Hall

Simmons Hall by Steven Holl, MIT campus

Gund Hall, Harvard Graduate School of Design

Boston's North End

model of Boston in the City Hall

view on Boston's Back Bay

Carpenter Center for the Visual Arts, Harvard

Harvard Campus, Harvard Law School

city of the future
stad van de toekomst

PHOTO IMPRESSION FINAL PRESENTATIONS MSc II DESIGN STUDIO 3 JULY 2018

discussion with visiting critics Pınar Balat (studio PINAR BALAT)
and Bas Horsting (BASTA urbanism)

visiting critic Hans de Boer (DIMI) (left)

CITY OF THE FUTURE
STAD VAN DE TOEKOMST

MSc II Design Studio Mobility & Public Space in the City of the Future

TU Delft | Deltas, Infrastructures & Mobility Initiative

TU Delft BK Bouwkunde Delft University of Technology Faculty of Architecture and the Built Environment

BNA Royal Institute of Dutch Architects