

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

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Studio		
Name / Theme	Urban Fabrics	
Main mentor	Birgit Hausleitner	Urban Design
Second mentor	Lei Qu	Spatial Planning & Strategy
Argumentation of choice of the studio	<p>My initial interest has led me to dig deeper into the body of theory that concerns socio-economic changes and development processes concerning the influx of the population in cities over the last decades. Contemporary cities are not only growing in population, they are also becoming more and more diverse. This twofold process poses major challenges. Besides managing the multi-faceted integration of new residents in the city and into society, there is also the challenge of ensuring the continued social cohesion in neighborhoods (The Worldwatch Institute, 2016). On top of this, there is a common perception that the quality of public and social life is deteriorating worldwide. Economic inequality increased which have resulted in socioeconomic inequalities and spatial segregation. This development is especially visible in urban areas and has major impact on the quality of life and social cohesion between residents. My research therefore aims to contribute to the knowledge of how these developments form the physical environment and aims to combine both design and planning strategies in order to intervene in these processes. Therefore, by using a multi-scalar approach, while catering the social aspects in the processes, this project seeks to define the relation between urban design, social meaning and decision-making.</p>	

Graduation project	
Title of the graduation project	A socially cohesive Overtoomse Veld
Goal	
Location:	Amsterdam – Overtoomse Veld
The posed problem,	<p>Overtoomse Veld is a rapidly growing neighborhood in Amsterdam Nieuw-West with an expected population growth of 66% between 2020 and 2050. This population growth is also visible on the larger scale. In order to foresee in the influx of the population and therefore the demand for more homes, expanding and densifying the city of Amsterdam is important.</p> <p>But not only adding homes, also adding and relocating amenities is necessary when looking at the city and its neighborhoods. It is therefore important to investigate the needs and demands of not only new, but also current residents.</p> <p>However, the proposed densification strategies are mostly aiming towards adding homes, stimulating economic growth by attracting high-incomes, and improving the sustainability of the city. These densification processes, in combination with the socio-economic changes in the city, lead to injustice for local residents in suburban post-war neighborhoods like Overtoomse Veld. The social aspect is therefore not catered enough in these proposals.</p> <p>A change is therefore required which includes planning strategies and design interventions in order to create a multi-scalar approach to expand the city and provide a suitable mix of program which contributes to social cohesion in neighborhoods.</p>
research questions and	<p>Main research question:</p> <p>“How can the monofunctional post-war neighborhood Overtoomse Veld be transformed into a more socially cohesive mixed-use area?”</p> <p>Sub questions:</p> <ol style="list-style-type: none"> 1. What are the spatial aspects of a socially cohesive neighborhood? 2. How is mixed-use development related to social cohesion between residents and how does it create opportunities in Overtoomse Veld? 3. In what way is the spatial configuration challenging the quality of social life in Overtoomse Veld? 4. What are the possibilities for densification in the city and its neighborhoods? 5. What spatial measures can be applied in order to transform Overtoomse Veld into a more socially cohesive neighborhood? 6. What institutional change is required in order to allow and strengthen the positive effects of the interventions?

	<p>7. To what extent are the interventions in Overtoomse Veld transferable to other post-war neighborhoods?</p>
<p>design assignment in which these result.</p>	<p>This project puts forward the importance of design interventions and a change in policies in order to create a multi-scalar approach to expand the city and provide a suitable mix of program which contributes to social cohesion in neighborhoods.</p> <p>Design interventions: Interventions are not only needed in terms of catering the housing need, but mainly to prevent segregation & exclusion and to provide a suitable mix of program which can stimulate social cohesion in post-war neighborhoods. New amenities need a place in the city and current & new residents will need to live together with according functions. The purpose of this research therefore includes interventions on different scales, from city to building level. A crucial aspect in these interventions is the relation to surrounding areas and the relation between the built environment and public spaces.</p> <p>Change in policies: Subsequently, this project aims to discover how planning processes can be conducted in order to create approaches which are more location specific and consider different social groups, places and times instead of implementing standardized programs to different neighborhoods which are mainly geared towards economic growth and sustainability. Overtoomse Veld will function as a precedent in this project and will therefore represent other post-war neighborhoods in the city. In this way, the approach will be repeatable for different post-war neighborhoods in the city.</p> <p>The project is divided in four main phases in order to achieve this research aim: The conceptual background (sq: 1,2), the analysis phase (sq 3,4), the explorative phase (sq: 5,6) and the reflective phase (sq: 7).</p> <p>The conceptual background first focuses on needed literature in order to investigate the spatial aspects of a socially cohesive neighborhood to investigate whether these mentioned spatial aspects can be applied in Overtoomse Veld. Thereafter, the relationship between mixed-use and social cohesion is investigated. Qualitative and empirical indicators can then be determined in order to use these for design interventions in the explorative phase.</p> <p>The analysis phase focuses on the relation between the social and physical environment on multiple scales by investigating how the spatial configuration is challenging the quality of social life in Overtoomse Veld and what the possibilities are for densification in the city and its neighborhoods. The analysis phase is divided in to three main categories: segregation and connectiveness, centralities, and the ambition of the city to densify. A catalogue will be created which shows the social and spatial challenges and potentials in the area, which can function as a base for testing and evaluating design proposals. Research by design in the</p>

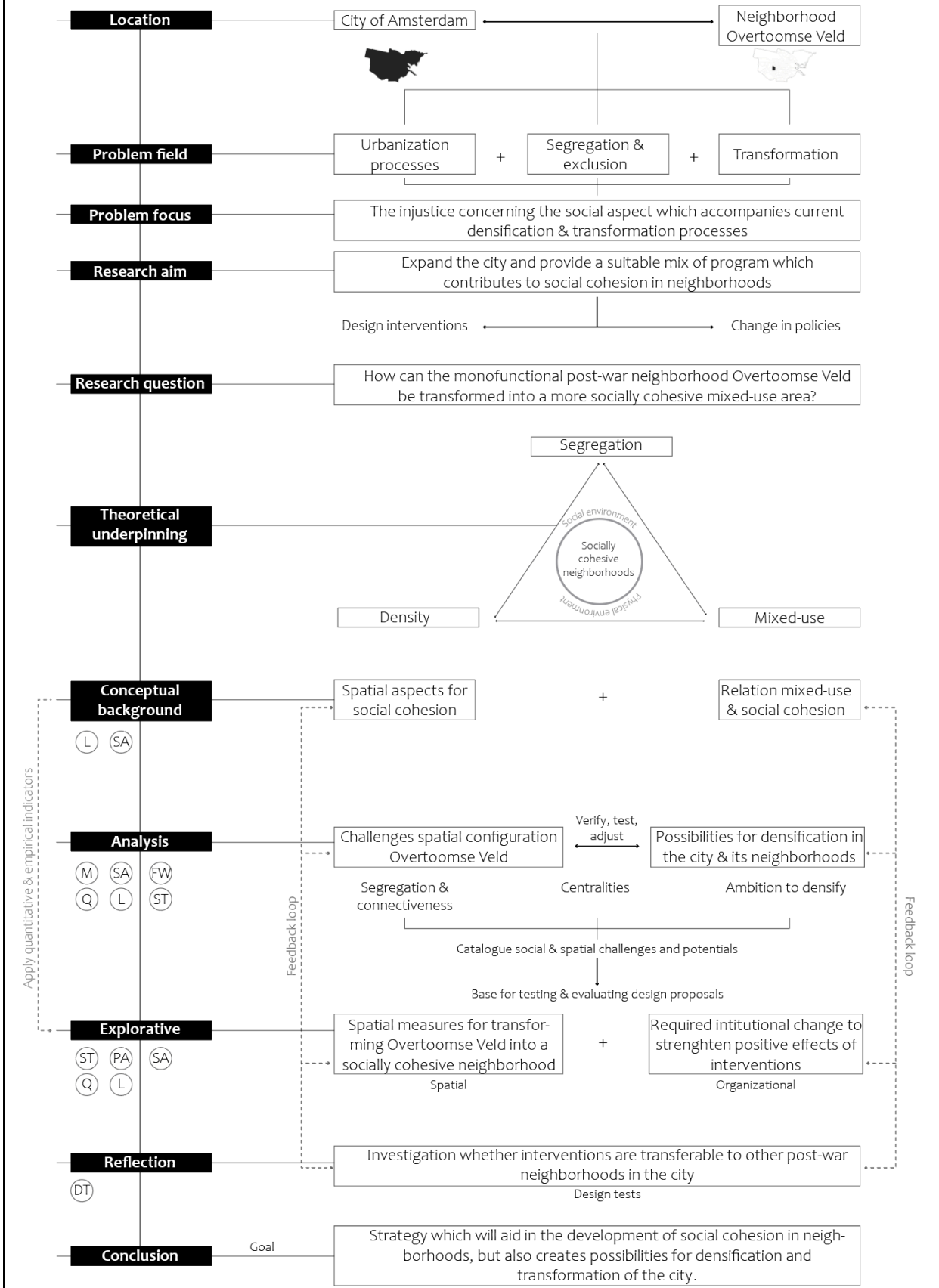
framework of scenario testing plays an important role in order to test the impact of quantifying density on different aspects, especially the relation to social life.

The outcomes of the explorative phase are expected to be both spatial and organizational which will be conveyed through multiple scales. Research by design is again an important method in this phase in order to test alternatives of the urban fabric through design by application of the design principles, which are investigated in the conceptual background and analysis phase, in order to evaluate their necessity and suitability of altering the urban configuration in order to achieve social cohesion. Thereafter, it will be investigated what institutional change is required in order to strengthen the positive effects of the interventions.

Finally, the reflection phase will make a feedback loop from the previous three phases in order to investigate to what extent the interventions in Overtoomse Veld are transferable to other post-war neighborhoods in the city. This will then be the first attempt in promoting a strategy which will aid in the development of social cohesion in neighborhoods, but also creates possibilities for densification and transformation of the city.

*The scheme below summarizes the research structure of this graduation project.

Research structure



Process

Method description

Different methods will be utilized in order to answer the sub questions and gain the most insightful set of conclusions. The different methods are explained below.

Literature review

The literature review aims to explain and identify key theories and their approaches which are related to this research in order to explore what is investigated before and to gather different findings, opinions and information. Books, articles and reports will be used, which can therefore inform the problem, purpose, significance and research questions in this project. Some aspects will not only be investigated in the theoretical analysis, but there will be empirical studies on it as well.

Stakeholder & policy analysis

The stakeholder analysis and policy analysis investigate the current stakeholders, spatial planning instruments and strategies on neighborhood and city scale which are related to urban renewal and densification and which are involved in creating socially cohesive, mixed-use areas. By analyzing the current situation, challenges, conflicts and possibilities will come to light which will aid in determining what institutional change is required in order to allow and strengthen the positive effects of the applied interventions in Overtoomse Veld and in Amsterdam.

Spatial analysis & mapping

Spatial analysis and mapping are applied in order to investigate the current densities, spatial organization and evolution of the neighborhood through time. Mapping plays an important role in the construing and constructing of lived space. The function of mapping is therefore more to reshape the world in which people live, and less to mirror reality (Corner, 1999). Corner (1999) emphasizes, mappings can visualize relations between past and present. An important step is to reformulate what already exists. This needs to be done by not only looking at physical attributes of topography, roads and buildings, but also to include the more natural processes, historical events and local stories, economic and legislative conditions, and regulatory mechanisms. In this way, not only possibilities will become visible in the complexity of what already exists, but potentials can also be realized. This is a crucial step in this research as the investigated neighborhood is built according to certain historic beliefs which are clearly visible in the spatial organization, but are not all functioning well in contemporary society. Therefore, by using spatial analysis and mapping as research methods, greater efficacy in intervening in spatial and social processes can be achieved.

Fieldwork & questionnaire

Fieldwork will be done in the neighborhood of Overtoomse Veld in Amsterdam. These site visits will not only allow to experience the atmosphere, scale and vitality more intuitively, but will also allow to double check whether the gathered information is corresponding to the existing situation of the neighborhood. Photos will be taken, sketches will be drawn, and maps will be

created in order to capture the challenges, possibilities, experiences and characteristics of the area, to move from the gathered statistical data to getting more a feeling of the place.

A questionnaire will be done during site visits. This questionnaire is intended for residents of Overtoomse Veld. Important is that this questionnaire creates a link between the social and spatial characteristics, which need to follow out of the questions from the questionnaire. This is necessary in order to make the step from the social aspects to the urban design of the project. Even though this questionnaire is also sent out online, it has been decided to also include it during fieldwork. After all, there is a limitation to an online questionnaire as often only a certain group of residents can be reached and therefore no solid conclusion can be drawn from the results. By conducting the online questionnaire in combination with doing the interviews during fieldwork, more solid conclusions can be made.

Research by design

Different methods of research by design are included in this project. Research by design in the framework of scenario testing is done in order to test the impact of quantifying densities on different aspects, especially the relationship to social life. Scenario testing is also applied to test alternatives of the urban fabric through design by application of the design principles and evaluating the necessity and suitability of altering the urban configuration in order to achieve social cohesion. Finally, design tests are also done in the reflection part of this project in order to test to what extent the interventions in Overtoomse Veld are transferable to other post-war neighborhoods in the city. Scenario testing is therefore used to explore potential design outcomes. As developments need to be flexible and adapt to changing circumstances, it is therefore part of research by design.

Roggema (2016) emphasizes two arguments, which are highly related to this research, of why research by design is not only a suitable, but mainly a necessary approach to use for complex challenges in order to make plans for future scenarios. Firstly, it is emphasized planning the future can no longer be based on the certainty of programs and conditions. Nowadays, conditions and programs are always changing. It is therefore important that plans reflect on its own conditions and the effects of the planned interventions. The process of planning therefore needs to be transformed into a process of multiple feedback. Secondly, many problems are complex in current times, there is no single, accepted formulation of these problems, and there is no final solution, as is also readable in the theoretical underpinning of this research. Therefore, counterintuitive thinking is necessary. As it is possible to make creative jumps in thinking and solving problems, research by design is a suitable approach for the problems addressed in this research. In this way, plans do not only determine future development, but also integrate large numbers of partial solutions into a spatial strategy for a city and its neighborhoods by linking them with different activities and interventions.

*The scheme on the next page summarizes the relation between the sub questions, used methods and expected outcomes

Sub questions	Methods	Intented outcomes
Conceptual background		
01 What are the spatial aspects of a socially cohesive neighborhood?	Literature review of the quantitative and empirical indicators of social cohesion to determine which factors contribute to social cohesion in a neighborhood.	Quantitative and empirical indicators to determine the factors that contribute to social cohesion in order to use these for design interventions. A set of design principles that facilitate a socially cohesive environment.
02 How is mixed-use development related to social cohesion between residents and how does it create opportunities in Overtoomse Veld?	Literature review on the interrelationship between mixed-use and social cohesion in neighborhoods Spatial analysis of investigating whether the mentioned spatial aspects in the literature review, apply to Overtoomse Veld.	Defining potentials and challenges of how to implement mixed-use in order to enhance social cohesion between residents in Overtoomse Veld.
Analysis		
03 In what way is the spatial configuration challenging the quality of social life in Overtoomse Veld?	Mapping & spatial analysis of the current densities, spatial organization and evolution of the neighborhood through time to link social & spatial processes. Fieldwork & questionnaire with residents in the neighborhood on local needs and perceptions. Literature review on the origin of the neighborhood and the relation between the physical environment and social cohesion.	A catalogue which shows the spatial and social challenges and potentials in the area, which can function as a base for testing and evaluating design proposals.
04 What are the possibilities for densification in the city and its neighborhoods?	Identifying scenarios in order to use these for design testing Research by design in the framework of scenario testing in order to test the impact of quantifying density on different aspects, especially the relation to social life.	Proposals and design strategies of densification including possibilities and challenges on different scales and locations.
Explorative		
05 What spatial measures can be applied in order to transform Overtoomse Veld into a more socially cohesive neighborhood?	Scenario testing of alternatives of the urban fabric through design by application of the design principles & evaluating the necessity and suitability of alternating the urban configuration in order to achieve social cohesion.	Design interventions considering alterations of the urban environment.
06 What institutional change is required in order to allow and strengthen the positive effects of the interventions?	Policy analysis of the current policies & strategies on neighborhood and city scale. Stakeholder analysis & interview about visions, intentions, opinions and requirements. Literature review on the relation between regulations and the urban environment of the city and the neighborhood.	Strategic framework including design guidelines. Critical position towards the current policies and strategies.
Reflection		
07 To what extent are the interventions in Overtoomse Veld transferable to other post-war neighborhoods in the city?	Design tests on different post-war neighborhoods in the city.	A conclusion to what extent each of the interventions done in Overtoomse Veld are transferable to other post-war neighborhoods in Amsterdam.

Literature and general practical preference

The theoretical underpinning aims to include theoretical notions and issues which are considered relevant with the topic and the chapter therefore aims to elaborate on different theories which will aid in the development of this research project. The theoretical underpinning in this research is applied to analyze the problems related to social cohesion in neighborhoods in contemporary society.

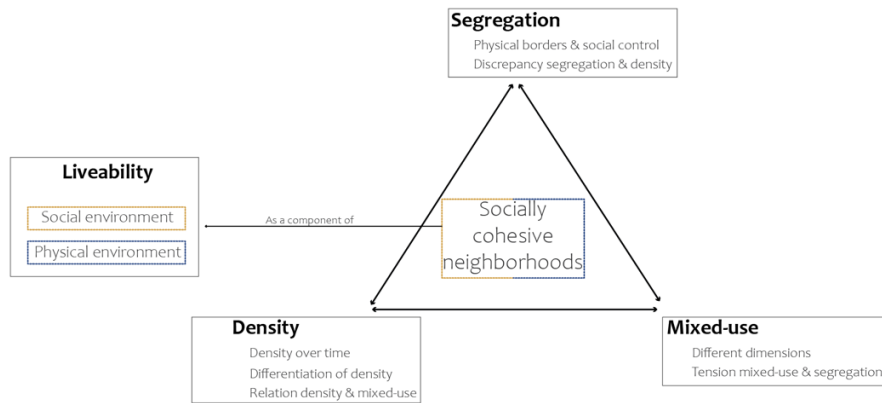
First, the chapter will start by elaborating more on the concept of social cohesion in neighborhoods and will cover the relation to liveability, the physical and social environment, and social diversity.

The segregation paragraph elaborates on this chapter by covering theories of physical borders and social control in neighborhoods, as well as the aspect of segregation as a spatial concept in order to clarify the link to density.

The topic of densification will cover the spatial organization in cities and neighborhoods over time and the often-mentioned link with the application of mixed-use. In order to evaluate the impact of high or low densities on social cohesion in neighborhoods, it is important to acknowledge the different aspects of density. Therefore, a tool will be introduced which can

be utilized to calculate density and find a suitable balance between built and unbuilt space, in order to cater the social aspect in the densification processes.

The topic of mixed-use acts as a supportive and complimentary layer to the chapters of segregation and density and can be seen as a tool to strengthen the different implications. The different theories play a crucial role on city and neighborhood scale.



Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

As this graduation project tries to encompass the relationship between qualities of the urban environment, in combination with social and economic performances of societies and the wellbeing of citizens, it fits well in the master track of Urbanism. This project aims to aid in the urban development of the city of Amsterdam and its neighborhoods, but at the same time tries to be sensitive to local conditions and cultures in order to enhance the social cohesion between residents in neighborhoods. The department of Urbanism, within the MSc Architecture, Urbanism and Building Sciences, is therefore the most suitable department to conduct this research in. But also the relation between this graduation project and the master programme in general is clearly evident as the MSc Architecture, Urbanism and Building Sciences blends knowledge and skills from design practice, including physical and social sciences, which relates to the aim of this graduation project.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework?

Scientific relevance

This project contributes to the work field of the development in the city of Amsterdam due to an influx of population, by focusing on the neighborhood Overtoomse Veld. Research indicated different initiatives and processes over the last years to expand the city and enhance the liveability in its neighborhoods. However, time has shown the injustice accompanying these proposals and the situation in several neighborhoods even worsened over the years. Overtoomse Veld is one of these neighborhoods and functions as a precedent in this project

for other post-war neighborhoods. The project's intended aim of proposing spatial and organizational interventions, could be used as guidelines when transforming and upgrading the neighborhood of Overtoomse Veld. As the analysis is based on socio-spatial and socio-economic structures, it could also provide a useful source of knowledge for other monofunctional post-war neighborhoods in the city of Amsterdam which are dealing with similar challenges and potentials as Overtoomse Veld. Furthermore, this project can function as a valuable contribution to the provision of data from fieldwork, linked with existing practice and theory, which expands the understanding regarding shortcomings of current developments. It offers a perspective on how to deal with the issue of densification by catering the social aspect in the process.

Societal relevance

Currently there is a pressure on cities as well as on citizens due to the demand for densification. Densification is favored because it brings about a high concentration of resources, capital, data, and talent over a small geographic territory (Ellen MacArthur Foundation, 2017). However, it is very easy to fall into the trap of gentrification and segregation and relegating the underserved and underprivileged members of society to the peripheries of urban areas. This would bring about spatial injustice within the densification zones identified for development, and social cohesion is at stake. This is specifically of great importance when looking at the increasing gap between rich and poor (Milikowski, 2018) and the expansion plans of the city centre of Amsterdam. By focusing on the case of Overtoomse Veld, this project seeks to explore potentials for both urban design as for planning strategies in order to provide a framework towards development. This framework is meant as a guide for change that aims to find solutions in order to transform, expand and densify the city and its neighborhoods via design interventions, guidelines and policies in order to create a place that aids in the social cohesion between a diverse group of residents in neighborhoods. The project aims go beyond the fact of solely spatial urbanization, but to guard local cultural and social values as a necessary consideration for any plan of change that aims to be a long-term solution.

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