

# AN ECO SYNERGIST HUB IN ROTTERDAM:

Reuse and Regeneration of neglected urban fragments into ecological hotspots

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# REFLECTION



For my graduation project, I have decided to deepen the theme of abandoned spaces in the urban environment. This theme has always fascinated me. Many times it happened to me to observe structures or untouched lands, without use in my country, Italy, and I wondered what could be the causes of this phenomenon and if there were perhaps some benefits to be derived from them.

Often, due to economic, political or social problems, many of these spaces remain 'suspended', invisible to people who are rarely interested in their recovery, regeneration.

Also in Rotterdam I happened to see some examples of this space, especially near the port. Here, the majority of buildings or lands has been continuously demolished and substituted by other structures with new functions and forms so that the memory of previous urban structures is being lost. Instead, certain fields are used, then discarded, or never used at all and left untouched.

I have focused my research on the area of Waalhaven (and surroundings), regarding which I have formulated the following Research Question:

**"What spatial framework can guide the transition of Wastescapes in Rotterdam into ecological valuable spaces which can foster biodiversity, and improve the quality of people and species' life aspects on small, large scale (district/region)?"**

I have selected this area of interest as it currently represents one of the harbour zones where the concentration of abandoned lands, industrial buildings and spatial, social fragmentations is quite high and critical in the city.

To answer this question, I have carried out a continuous work of parallel research and design, structured in different phases and levels of analysis / detail. In particular, I have divided my work into three different scales of interest: large (Rotterdam), medium (Waalhaven) and small (Oud Charlois).

All three areas are linked by a single project idea, that is the experimental attempt to convert an industrial-port area into an ecological hub where different elements take part. The environmental success of a single part of the city can represent a turning point for even more similar critical areas, especially along the Maas River.

The used working approach worked satisfactorily, especially in the final phase of research where theory and research could best complement each other. This was given above all by the personal ability to select specific topics of interest and on the further assistance of my mentors. Their expertise and knowledge of the research topics represented an essential resource for carrying out the work.

Their feedback has always been very precise and detailed. This helped me to improve my work each time and to give me inputs to integrate it personally. Furthermore, the readings that they have recommended to me for my research have been very meaningful and helpful.

My research work has taught me a lot: to be an independent researcher and architect, sometimes critical of the surrounding space and, at the same time, curious about it. In this graduate work, I have had the opportunity and freedom to personally express my technical skills and ideas.

Developing a vision of a space, accompanied by the choice of personal themes of interest, has undoubtedly led to a good result of the work.

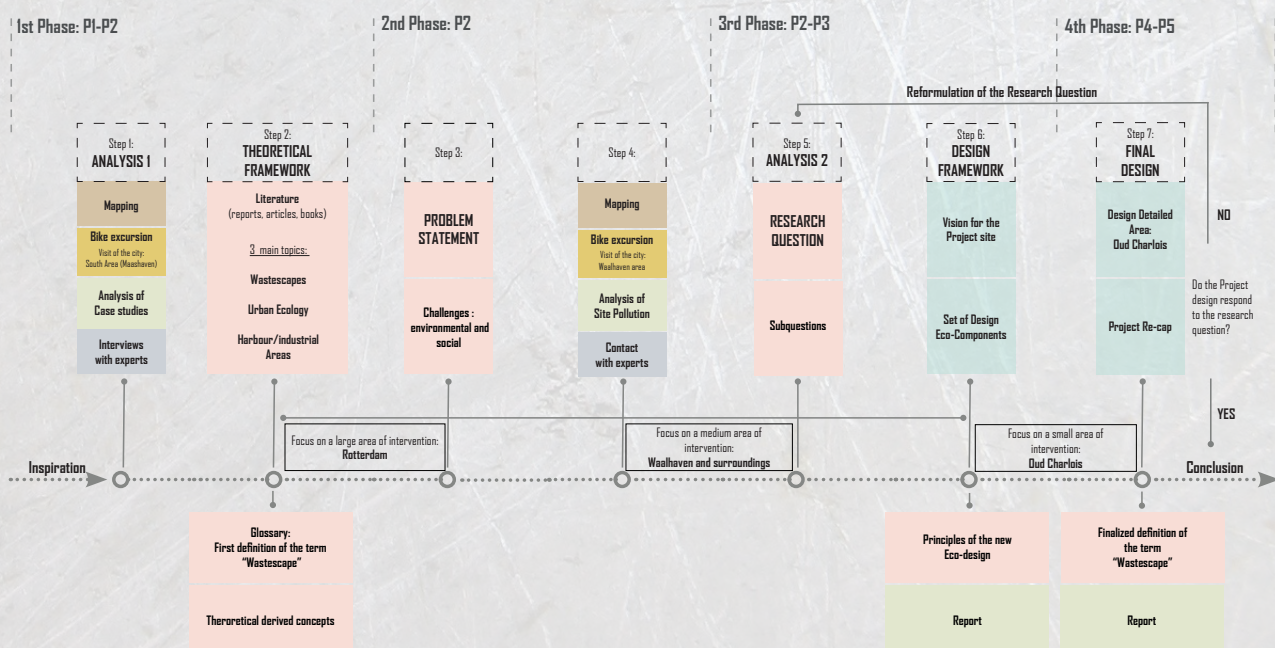


Figure 1. Research Plan.



### **- The relationship between research and design.**

In the graduation project, the relationship between research and design was and always is complementary. The one represents the tool of verification and improvement of the other. There is no (theoretical) research that does not provide the basis for design, and there is no design that does not bring innovation, change and updating to research.

Thanks to the research, I was able to acquire and develop my own bases for the design of urban space. The research contributed to the formation of a design framework on which I regulated my event in a precise and efficient way.

### **- The relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS).**

The graduation project topic is linked to that of the studio as it represents a design example where the cooperation of urban planning and landscape architecture show how the quality of the environment, of the life of people and species can be improved by Urban Ecology.

In the project intervention, the regeneration of wasted spaces in Rotterdam leads to the creation of new Eco-hotspots which can become attractive meeting points for people to interact between each other and reconnect with nature.

The project work shows the application of various principles that belong to the master track of LA, such as the understanding of the spirit of a place (genius loci), the enhancement of its spatial qualities and environmental potential. The regeneration of wasted spaces by innovative, sustainable techniques requalifies the urban place, also influencing the citizens' perceptions towards it.

The intervention acts on the urban landscape together with other important factors: Scale, Time and Process. These, together with the Design, will determine the appearance, duration and physical extension of the urban redevelopment project.

The graduation work allows me to implement the knowledge, skills belonging to the master programme (Msc AUBS): for example, management of a project under different aspects (urban/landscape), capacity of tackling a problem with flexible design solutions, the usage of notions, practice to build up an efficient design proposal.

### **- Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.**

The research method and methodology adopted were theoretical and practical. For the former we mean, textual analyzes of books, essays and articles on the topics of interest, while for the practical aspect some site visits were carried out, mapping of various kinds about Rotterdam and conversations with experts. In detail, the reading of texts on the theme of Wastescares and Urban Ecology represented a valid and important basis for my research, especially for the design choices.

The use of programs such as GIS for the mapping of natural and urban elements in /around Rotterdam has certainly helped to better define the quality of the information and the range of analysis for the research.

Occasional visits to the project site in different months of the year allowed the observation of very interesting seasonal changes, especially regarding the vegetation.

All these research actions allowed me to establish a precise design framework, a fundamental guideline for the development of my project. Without it, my work would have been more disorganized and fragmented.

### **- Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.**

Furthermore, the graduation project represents an invitation to the citizens of Rotterdam to feel encouraged to start appreciating and giving importance to the abandoned spaces in the city.

The reuse and regeneration of wasted places can offer great potential for urban biodiversity and also for the improvement of socialization between people.

The sense of belonging to a place is also fundamental and it can be discovered again via urban landscape design. A space can represent a place of experience and a point of integration and be perceived with its own identity.

Therefore, through my intervention, I would like to introduce in Rotterdam a systematic, efficient, sustainable, circular design proposal that can adequately show the potential of Wastescares in the city. These can be redefined as flexible urban elements capable of promoting biodiversity, addressing climate change, improving citizens' quality of life over time. Moreover, on a large scale, the Eco-design intervention can then help to reduce the existing contrasts between the North-South sides of the city, on small one it can ease the urban fragmentations within the Southern districts.

### **- Discuss the ethical issues and dilemmas you may have encountered in doing the research, (if applicable) elaborating the design and potential applications of the results in practice.**

Ethically, the presence of the port authority on the project site did not allow me to fully access some areas as they are 'private'. To compensate for this, I have tried to obtain the necessary information in another way (online, books).

Also in my design intervention, I took into consideration the presence of this authority and tried to find a mediation, integrating new design elements with pre-existing ones.