

To increase the resilience of Rotterdam-South, Rotterdam is trying to bring the 'making', in a new form, back to the city. An example of this innovative manufacturing industry, where the new economy of port and city comes together, is the Makers District (RDM, M4H). This is seen as a great success as a springboard for young, highly educated and entrepreneurial talent and creates new employment (high tech).

Unfortunately, there is little or no connection of the Rotterdam-South with the Makers District; it does provide little or no employment that matches the current qualifications and talents of the job seekers in disadvantaged neighborhoods such as Tarwewijk.

In order for the craft industry to match with the talents of the unskilled and low-skilled, it is important to bring back 'the pride of making', craftsmanship, to the district level (National Programme Rotterdam-South (NPRZ), 2019). A 'makerspace', as a (physical) place in the neighborhood, enables contacts with and between neighborhood residents and offers not only employment, but also opportunities for meeting, connecting and collaborating, creating networks and increasing social cohesion; factors that are labelled as important conditions for a resilient neighborhood.

Aspect 1: The relationship between research and design

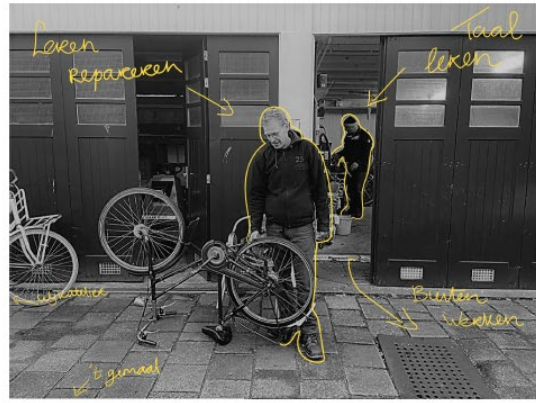
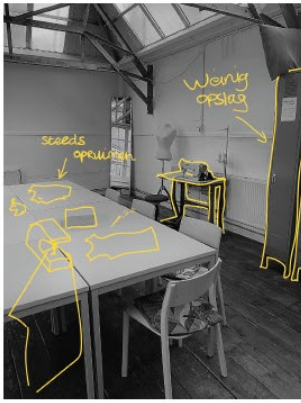
The purpose of this research is to identify promising combinations of requirements for a physical place to stimulate local craftsmanship in Rotterdam-South, specifically in the Tarwewijk.

This goal results in the following main subquestion:

What are promising combinations to stimulate local craftsmanship in Rotterdam-Zuid to offer residents, with limited starting qualifications, more perspectives to participate and emancipate, so that the resilience of the neighborhood is strengthened and backlogs are caught up?

In order to investigate whether bringing back craftsmanship in Rotterdam-South, specifically in the Tarwewijk, can give a positive impulse and contribute to (more) employment and strengthen the local economy and resilience in the neighborhood, an approach has been chosen whereby a literature study is linked to practical examples from field research in Rotterdam.

To gain insight into the needs and possibilities for a place to stimulate local crafts, a combination of qualitative methods (interviews, observations and literature review) seems most appropriate for this research. The first research method, literature review, makes it possible to collect data on the bottom of the labor market, production/making in the city and possibilities for funding. The second and third methods, semi-structured interviewing and open observation, help to test the literature review against the case studies by collecting data on motivations, beliefs, experiences and (spatial) qualities and limitations of different case studies in Rotterdam. The (spatial) qualities and constraints have been annotated in the photographs taken (shown below).



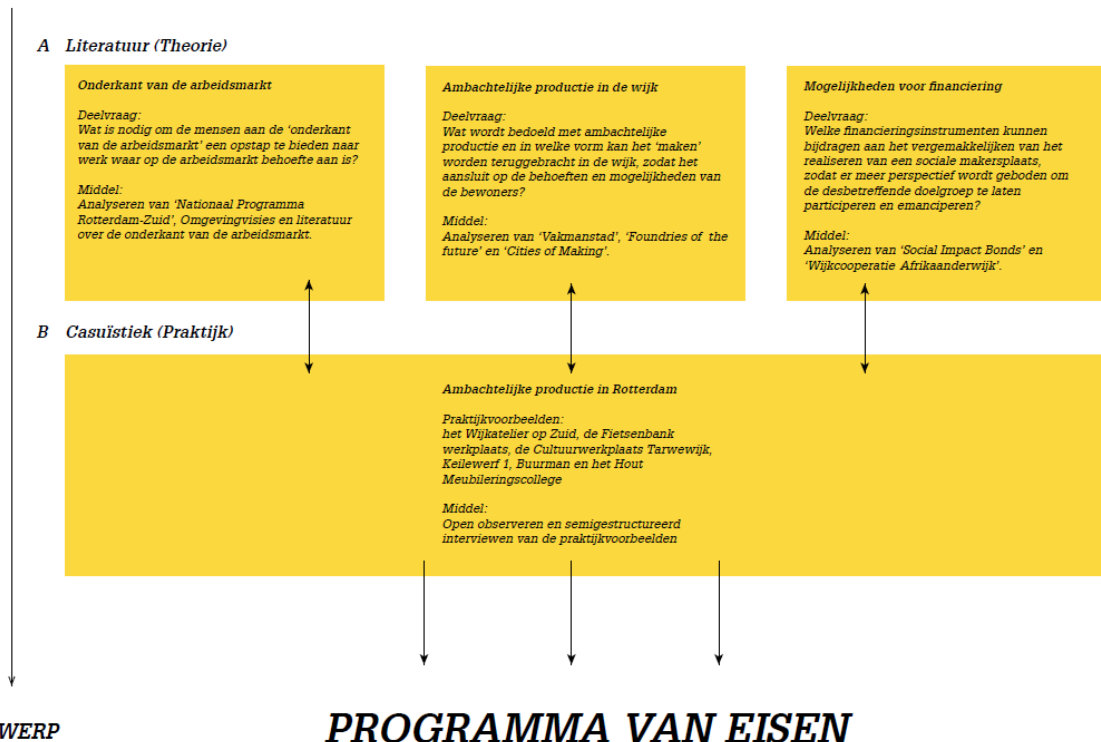
A dual design challenge lies ahead:

- A place for stimulating and developing the talents, qualities and ambitions of the residents, as a stepping stone to work in a craft.
- A place for meeting, connecting and collaborating.

The purpose of this design challenge is to create a physical place for stepping stones to employment and help with start-up and growth of local entrepreneurship in craft. Thus, a place for bringing back and optimizing craftsmanship, creating jobs, addressing unemployment and stimulating local economic growth and interaction. In this way, a network for social cohesion and resilience is created.

The research will provide a stepping stone for a Program of Requirements, as a first step for the design phase. In this project, the research and design are in continuous relationship with each other. This will be an ongoing process in which the research is constantly tested on the design and the other way around.

ONDERZOEK



Aspect 2: The relationship between graduation project topic and the Faculty of Architecture

This graduation studio aims to strengthen the resilience of Rotterdam south (Resilience Delta Program).

This graduation project focusses on creating employment for resident without or with a limited start qualification, who are searching for a job. Therefore it is important to bring back 'the pride of making', craftsmanship, at the district level.

The employment and participation of residents strengthens the economic resilience of a neighborhood. For a stable and positive future, having a job is essential. In addition to income, work also provides a healthy rhythm, self-esteem and a sense of purpose. When the unemployment of Rotterdam-(south) is addressed, the resilience of the city will benefit. This closely relates to the studio topic.

The makerspace, which will be designed, will also deal with, spatial and technical challenges encountered in the built environment. This closely relates to the educational goals of the master programme.

Aspect 3: Research method and approach, reflecting upon the scientific relevance

The research consists of literature study as well as fieldwork. An approach has been chosen whereby the literature is linked to practical examples in Rotterdam. Semi-structured interviewing and open observation, helped to test the literature review against the case studies by collecting data on motivations, beliefs, experiences and (spatial) qualities and limitations of different case studies in Rotterdam.

Especially the research methods semi structured interviewing and open observation, really matches the graduation studio methodical line of inquiry; VeldAcademie is doing a lot of fieldwork in the city to investigate and solve various social problems.

The methodology of this research will ensure that the final design is closely related to the talents of the residents without or with no start qualifications.

The methodology has some limitations because only six case studies in Rotterdam are analysed. In order to match bringing back craftsmanship to the talents of the unskilled and low-skilled, more case studies have to be analysed.

However, the case studies that have already been analysed are very valuable to get information about motivations, beliefs, experiences and (spatial) qualities and limitations.

Aspect 4: Relevance to social, professional, and scientific framework, and the transferability of the project results

Urbanization, as a result of population growth and changes in the pattern of life of the population, poses major problems worldwide. Phenomena that are closely related to urbanization are gentrification and inequality. Worldwide, the differences between rich and poor are greatest in cities, including the Netherlands. Especially in the big cities, such as Rotterdam, the inequalities are large. This graduation project tries to reduce these differences and strives for an inclusive society, in which also residents without or with limited entry qualifications, have opportunities to participate, emancipate and perspective on a sustainable (working) life.

This research will be able to serve as a model to contribute to (more) employment in vital neighborhoods and make them stronger and more resilient by bringing back craftsmanship to the district level to connect to the talents of the unskilled and low-skilled.

Aspect 5: Reflection

Ethical issues and dilemmas

The research has provided a stepping stone for a Program of Requirements, as a first step for the design phase. However, during the design process more research still needed to be done and decisions needed to be made.

A number of ethical issues and dilemmas emerged when searching for the exact location for the makerspace.

A perfect location for 'De handen van Zuid - the makerspace for craftsmanship' is close to the green zone along the Zwartewaalstraat in the Tarwewijk. The place is central, visible and accessible. Because of the public functions present, such as schools (including the craft school), House of Urban Arts (workspace for creative people), the sports hall 'Tarwesterk' and supermarket 'Dirk', this place is already the central heart of the Tarwewijk.



This will be provided by the future new pedestrian and cyclist bridge over the Maashaven with routing through the Tarwewijk. By placing the makerspace along this route, the design assignment to reallocate the public space in the neighborhoods along the route will be fulfilled.

In the first place the middle of the green zone seemed to be the perfect place for the makerspace. However, the monumental value of the green zone in combination with the school building gave limitations; the harmony of the area would have been distorted by placing the building in the middle of the park.

Because of this, the empty green zone next to the sport hall was the only space left to work with.



By placing the building next to the sport hall another ethical issue came across. Due to the unusual placing and the closed façade of the sport hall it was hard to integrate the new pedestrian and cyclist route. By demolishing the sport hall a more pleasant route could have been realized. However, demolishing the sport hall would have been hard to justify. Therefore, the choice has been made to make minor adjustments (an extra opening in the façade of the sport hall), in order to make the sports hall more meaningful in its surroundings. Besides that, the sport hall will now function as a multifunctional building, which compliments the new makerspace next to it.

Instead of demolishing the sport hall, the small low brick wall, that closed off the courtyard of the monumental building, will be demolished to make the new pedestrian and cyclist route less narrow and more pleasant. This solution is more ethically acceptable and takes into account societal purposes and needs.



Personal

Testing the literature review against the case studies definitely helped me gain a better understanding of craftsmanship to a district level.

During the design process I noticed that not only researching and designing are in continuous relationship with each other, but also architecture and building technology. This made me realize that in the next design process I need to start earlier with examining the pros and cons of the suiting building technology.

I found difficulties during this graduation year, for instance being caught up in my 'own bubble'; meaning being able to have just one viewing angle. This learned me that it is important to be flexible during the whole design process to interpreted and implement other perspectives from multiple supervisors.