

Regenerating for the People

A research to the design of a multifunctional urban waterfront with a cultural function

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Abstract:

The ultimate aim of this research is to create a theoretical framework for the design of a multifunctional cultural waterfront on the edge of the Tarwewijk in Rotterdam South. From this follows the main research question: How can the regeneration of a waterfront into a cultural area add social and cultural value to the Tarwewijk and Rotterdam South?

There is a strong cultural division between the North and South of Rotterdam what leads into the fewer access to culture and lower demand for culture in the South of Rotterdam. Knowing this, the redevelopment of an underused unconnected waterfront in the South of Rotterdam into a cultural area can lead to unwanted social effects, like no social and cultural connection to the neighbourhood and by this it could lead to gentrification.

It is important to develop a cultural area that adds social and cultural value to the neighbourhood and that this area is part of the neighbourhood (tangible and intangible). This can narrow the (cultural) gap between the North and South of Rotterdam. This happens because both culture becomes more inclusive and approachable for the local people and the population of Rotterdam South become culturally richer.

In order to investigate this, The research that follows focusses on three hypothetical parts of the solution. The first one is multifunctionality. This subject will be researched through the questions: What does multifunctionality entail? How can multifunctionality benefit the cultural area? How can multifunctionality be beneficial to the neighbourhood? And how do multifunctionality and multiculturalism relate to each other?

The second subject is identity. The sub questions for this are: What creates this identity? How can identity benefit the museum? How can identity be beneficial the neighbourhood?

The last subject is connection. In this part there will be focus on how can tangible and intangible connections can be established between the site and the neighbourhood with as main goal to integrate the museum with the neighbourhood.

For every of the three subjects firstly there will be done a literature research to theorize the subject and get a grip on the main principles of the subject matter. I will research what others have done in the field of multifunctionality, identity and connection and from there I will try to come up with my own hypothesis about these subjects. After that case studies will be conducted where the aspects of multifunctionality, identity and connection will be analysed. After that site specific research will be done to form a conclusion about the information that is gained from the literature and the case studies.

In this research and design I want to redefine the way cultural area's and museums are looked upon to make them more attractive to a wider audience that normally wouldn't visit a cultural area or museum. It aims to create an alternative to the classic typology of the museum. The research and design try to show that a museum or cultural area can also function in a more social and inclusive way. This case can then be an example for future projects.

Keywords: Architecture, Urban Design, Multifunctionality, Connection, Identity

The ultimate aim of this research is to create a theoretical framework for the design of a multifunctional cultural waterfront with a museum function on the edge of the Tarwewijk in Rotterdam South. It deals with several site related problems and tries to come up with a good theoretical framework for a fitting solution in the form an architectural design. The five main problems that define the site are the division of Rotterdam North and South, the poor access to culture for the residents of Rotterdam South, a disconnection to the neighbourhood, underused waterfront and the possible effects of gentrification. These problems will be explained in the following text.

Problem Statement

The emergence of Rotterdam South (Charlois, Feijenoord and IJsselmonde) is inextricably linked to the development of the port of Rotterdam at the end of the 19th century. During the expansion of the port of Rotterdam, residential areas with cheap houses were quickly built to house the dock workers. In the 1960s and 1970s, cheap laborers from southern countries (guest workers) came in large numbers to the port to do the work that the native population no longer wanted. These employees settled en masse in South. This while in the 1980s port activities shifted further westward, causing employment in the ports for South to decline. In Rotterdam South today, these developments can still be felt. This is partially because the cheap housing stock attracts the underprivileged and low-income residents.¹

Because of this there is a big difference between Rotterdam South and its northern counterpart. In the part of Rotterdam above the Maas, there is the city centre with stores, the central station and, in general, a more expensive segment of homes. Almost all cultural institutions and museums, including the Museum park, are therefor located in the North.

In Rotterdam, the development of Rotterdam South has been an important agenda for many years. It is being worked hard on by the National Program Rotterdam South (NPRZ). In the National Program Rotterdam South (NPRZ), the central government, the municipality of Rotterdam, corporations, and other actors are working on a healthy future for the South of Rotterdam. Together, these partners want to ensure that education level, labour participation and housing quality increase to the average of the four large cities in the Netherlands in 20 years.²

Rotterdam South has a cultural infrastructure that lags behind urban areas of comparable scale. Just five of the 86 cultural institutions in the 2018-2020 Culture Plan are located south of Maashaven, in addition to the locations of urban institutions such as the Library, SKVR and Cultuur Concreet.³ Also the neighbourhood profiles show that the involvement in culture of IJsselmonde, Feijenoord and Charlois (Rotterdam Zuid) residents lags behind the rest of the area.⁴

With the expansion of the port of Rotterdam, the port moved to the west. They began to develop beyond the borders of towns to accommodate larger ships. Further away from cities, they abandoned urban water fronts for deeper water harbours, creating 'non-place' areas in the city, and they also made ports and their activities vanish from the sight and minds of people.⁵

This is a worldwide known phenomenon which happened in almost all big port cities. In the heart of these port cities across the globe, the difficult issue of how to cope with the vacant space culminated in waterfront renovation projects within the inner city.⁶ In the case of the south side of the Maashaven, this has not yet been resolved properly. The former industrial waterfront potentially has many qualities, but is underused in its current form.

In addition to the substandard use, the poor connection with the adjacent neighbourhood (the Tarwewijk) is one of the reasons that the location is underused. A dike, a wide designed busy road and a tram track block the route and the view from the Tarwewijk to the water. Partly because of this, the potential qualities of the water and the waterfront are not optimally used for the neighbourhood.

This while the waterfront has many qualities for developments and because of that most waterfront development projects are a success. But that success has a dark side to it, the concept of gentrification.⁷ This happens when a neighbourhood with a lower socioeconomic status shifts to a higher status. When this occurs the original residents of the neighbourhood may be forced to move to another neighbourhood because of the rise of the real estate value.⁸

Often it happens that developers make use of these underused waterfronts and develop expensive real estate here, which increases the value of the land and thus also increases the value of the adjacent neighbourhood, making it unaffordable for current residents.⁹ That is why it is important that the museum and the economic and social prosperity that come with it are aimed at improving the lives of the current residents of South Rotterdam instead of attracting new (wealthier) people from outside.

To conclude, the socioeconomic status of the site and its surroundings in the South of Rotterdam is something to consider when designing the museum. The status is visible in the division between North and South and the lack of cultural access and participation. Knowing this, the redevelopment of an underused unconnected waterfront in the South of Rotterdam into a cultural area can lead to unwanted social effects, like no social and cultural connection to the neighbourhood and by this it could lead to gentrification. That is why it is important to develop a cultural area that adds social and cultural value to the neighbourhood and that this area is part of the neighbourhood (tangible and intangible). This can narrow the (cultural) gap between the North and South of Rotterdam, because both culture becomes more inclusive and approachable for the local people and the population of Rotterdam South become culturally richer.

Research questions

From this follows the main research question: How can the regeneration of a waterfront into a cultural area add social and cultural value to the Tarwewijk and Rotterdam South? In order to investigate this, The research that follows focusses on three hypothetical parts of the solution.

The first one is *multifunctionality*. This concept is based on the idea that spaces filled with people are successful spaces, partly because people attract people.¹⁰ Therefore the concept hosting multiple functions, will add to the vibrance of the area. And this will have a positive effect on attracting the traditionally 'non-museum' people of Rotterdam Zuid. It will introduce the people of Rotterdam Zuid

to the museum without them having to buy a ticket for it. And the combination of different unconventional functions can be the base of interesting unexpected architecture.

So the subject multifunctionality will be researched through several sub questions. What does multifunctionality entail? How can multifunctionality benefit the cultural area? How can multifunctionality be beneficial to the neighbourhood? And how do multifunctionality and multiculturalism relate to each other?

The second subject is *identity*. This is because the Tarwewijk is a place, like other neighbourhoods, with multiple identities. Massey ¹¹ states that such multiple identities can be either, or both, a source of richness or a source of conflict. In order to make this a richness and enhance the social cohesion I think the Tarwewijk needs a shared identity in the form of a public space. This would be a shared identity, but also a space which hosts the individual identities of the people of the Tarwewijk and Rotterdam Zuid. A space which doesn't completely decide its own identity, but it lets the people partly mould theirs into it. This because socially engaged architecture entails the tasks of exposing and giving voice to real public interests. ¹²

Therefor the sub questions for this theme are: What creates this identity? How can identity benefit the museum? How can identity be beneficial the neighbourhood?

The last subject is *connection*. This subject, as the word itself describes, does not stand on its own. Its about the relation between other elements or concepts. Dovey explained it well through the example of the street:

“For instance, a street is not a thing nor is it just a collection of discrete things. The buildings, trees, cars, sidewalks, goods, people, signs, etc. all come together to become the street, but it is the connections between them that makes it an assemblage or a place. It is the relations of buildings–sidewalk–roadway; the flows of traffic, people and goods; the interconnections of public to private space, and of this street to the city, that make it a ‘street’ and distinguish it from other place assemblages such as parks, plazas, freeways, shopping malls and marketplaces.” ¹³

Therefor the concept of *connection* is one that could serve as an incubator for the other two themes multifunctionality and identity. But connection also forms a design task on its own. It's about how to connect people with each other and how to connect people with art. The connection between adjacent neighbourhoods and with the water is also something to deal with. That's why in this part there will be focus on how can tangible and intangible connections can be established with as main goal to integrate the museum with the neighbourhood.

Theoretical Framework and Methodology

For every of the three subjects firstly there will be done a literature research to theorize the subject and get a grip on the main principles of the subject matter. I will research what others have done in the field of multifunctionality, identity and connection and from there I will try to come up with my own hypothesis about these subjects. After that nine case studies will be conducted where the aspects of multifunctionality, identity and connection will be analysed. These case studies vary from museums to market halls, but the common theme they all share is publicness. This theme therefor will be an important element in the analysis. After the case studies site specific research will be done to form a conclusion about the information that is gained from the literature and the case studies.

For each of the themes multifunctionality, identity and connection the most important literature that stands on the base of the research for those subjects will be discussed in the following texts.

The concept of *multifunctionality* initially is a reasonably understandable subject. From the article 'Multifunctional public open spaces for sustainable cities: Concept and application' by Zivkovic, Lalović, Milojevic and Nikezic it becomes clear that there is more to it. In this article they analyse how the concept of multifunctionality is used in different spatial disciplines (urban planning and design, landscape architecture) to better understand and relate the key definitions, applications and expected benefits of sustainable development. They give a comprehensive summary of the important literature on this subject and bring it back to a few different ways of multifunctionality: ¹⁴

- Mixed use of the land – different functions are interconnected in a certain area;
- Multiple use of the land – different functions exist within the site, not necessarily integrated;
- Multifunctional use – includes both horizontal and vertical combining of functions in order to achieve synergies;
- Multifunctional use over time – space can have different functions at different moments. “

From here the dimensions of multifunctionality could be defined through space, time and use. Where multifunctionality in space would be defined to how different functions are distributed in space horizontally and vertically. Multifunctionality in time would be how different functions are distributed in time. And multifunctionality in use refers to the provision of possibilities for people to use the space in different ways. ¹⁵

A multi-use large scale design like my design assignment could also be described as a hybrid typology. In the book 'This is Hybrid' by Aurora Fernández Per, Javier Mozas and Javier Arpa this typology of the hybrid is discussed and analysed through several case studies. A hybrid building is a building or complex that for start consists of multiple functions under one roof. They go without the boundaries of classic typologies to create a new one. They all have a certain largeness in scale or grandeur to them where the boundaries between architecture and urban design disappear. Also the private life's intimacy and public life's sociability reside within the hybrid and produce constant activity. ¹⁶ The case studies described that fit the typology of the hybrid all have an unexpected way of mixing functions within the complex. Several of the further on discussed case studies therefor derive from this book.

The concept of **identity** in both the fields of architecture and urban design is less straightforward and easily determined. In the piece 'On the identity of places' by Edward Relph he discusses what the identity of a place entails and comes to the conclusion that the identity of place is not something that can be summarised and presented in a brief factual description. ¹⁷ But in order to define the concept he stated that:

“Identity is, in short, neither an easily reducible, nor a separable quality of places—it is neither constant and absolute, nor is it constantly changing and variable. The identity of place takes many forms, but it is always the very basis of our experience of this place as opposed to any other.” ¹⁸

In chapter five of the book 'Becoming Places' Kim Dovey, Ian Woodcock and Stephen Wood take an approach that focusses more on the scale of the neighbourhood and try to answer the

question ‘What is neighbourhood character?’ Wherein character is used as a synonym for identity. They state that:

“The quests for urban character outlined above show a cluster of intersecting and often contradictory desires: for a sense of security, comfort and order; for stabilized identities geared to nature and heritage; for encounter with difference in everyday life; for status and property values. In each case character is identified through experiential words such ‘feel’, ‘sense’ or ‘atmosphere’.”¹⁹

In the book ‘Ornament and identity’ by Carl Meeuwsen and Neutelings Riedijk Architects a more visual approach to define identity of a building is taken. In the book 36 designs, all by Neutelings Riedijk Architects are discussed though describing the contemporary ornamentation which partly gives the designs their identities. They state that:

“According to the Polish sociologist Zygmunt Bauman we are currently in a state of “liquid identity” Our identity, more straightforward in the past, has become diluted and fluid. We are obliged to interact with the entire world, from the alienating internet in our living room to the unintelligible foreigner in the street. We ourselves are both local and global.”²⁰

The concept of **connection** is even harder to define because it’s a concept that doesn’t come on its own. As described before on page 5 of this document Dovey explained it well through the example of the street where the connections in between different elements that form the street are actually the things that define the street instead of the elements itself.²¹

With the understanding that the literature gave me the following nine case studies will be analysed on these three subjects. This case study analysis will be done individually for every project. For every project there will be tried to form conclusions about how the projects deals with the themes of multifunctionality, identity and connection. Every design has their own characteristics on the themes and they are not necessarily comparable because of difference in function, scale and use. From the conclusion there will be looked for similarities between the projects, but without comparison.

Bryghusprojektet – OMA

2008-2014

Copenhagen, Denmark

Living, Office, Culture, Shopping, Sport

Although this design by OMA for the Bryghusprojektet (figure 1) in Copenhagen has not been built, it still offers an interesting look on how to combine multiple different (cultural) functions at an urban waterfront. The seemingly randomly stacked functions all interact with each other and are all connected through the waterfront and the public ground floor. The similarities in circumstances with the location at the Maashaven in Rotterdam are clearly visible which makes it an interesting case study.



Figure 1 Bryghusprojektet

Market Hall – MVRDV

2009-2014

Rotterdam, The Netherlands

Living, Shopping

The Market Hall (figure 2) is a classic example of the merging of two apparently different functions into a conceptual clear shape. Nowadays this building serves as one of the better known icons of Rotterdam. Although this building does not host any cultural activities the extreme public character of the building makes it an interesting case study.²²



Figure 2 Market Hall

Horizontal Skyscraper - Vanke Centre – Steven Holl

2006-2009

Dapeng Bay, Shenzhen, China

Living, Office, Shopping, Hotel, Sport

This building by Steven Holl (figure 3) in Shenzhen is at a much larger scale than the other case studies. It hosts a wide range of functions all in a housed in a floating megastructure. By lifting it from the landscape the design transforms the initially private owned lot into a public park. In the interior, there's a play with semi publicness to make the different functions interact.²³



Figure 3 Horizontal Skyscraper

Metacity Rotterdam / Timmerhuis – OMA

2009

Rotterdam, The Netherlands

Living, Office, Shopping, Culture

This complex (figure 4) consists of a modular system that could host housing and office space at the same time. The structure was supposed to be able to grow vertically and horizontally depending on the needs. The voids that don't exist of modules form a public ground floor. Nowadays, Museum Rotterdam is hosted in this space although it was not intentionally designed for this. This shows the interesting flexibility of this building. ²⁴



Figure 4 Metacity Rotterdam

Low2No – REX

2009

Helsinki, Finland

Living, Office, Shopping, Other

This design proposal for a multifunctional hybrid complex in Helsinki (figure 5) is also not completed, but it gives a clear view on how an active plinth can be a generator for urban activity. The flexible nature of this building makes that the plinth spaces can be filled into variable urban functions according to the needs of the neighbourhood. ²⁵



Figure 5 Low2No

Renovation of the Multi-Function Hall in Central Academy of Fine Arts - Architecture School of CAFA

2018

Beijing, China

Culture

This project (figure 6) is of a completely different scale and type than the previous ones. This project contains a former history museum that is transformed into multifunctional space for the Central Academy of Fine Arts. This project is a great example on how to create multifunctional space. ²⁶



Figure 6 Multifunction Hall CAFA

**ZUZEUM Multifunctional Art Center -
Annvil**

2020

Riga, Latvia

Culture

Zuzeum (figure 7) is a multifunctional art centre housed in a former cork factory. The project opens up the before unused outdoor space to the public and uses that to connect the different cultural functions in the complex.²⁷



Figure 7 ZUZEUM

Forum Groningen - NL Architects

2019

Groningen, The Netherlands

Culture, Shopping, Other

This project (figure 8), situated in the city centre of Groningen, forms an extension of the public space where people can meet and debate, while combining a multitude of cultural organisations. It tries to blur the boundaries between the library, the archive, the museum and the cinema.²⁸



Figure 8 Forum Groningen

Dokk1 - Schmidt Hammer Lassen Architects

2015

Aarhus, Denmark

Culture, Office, Other

Dokk1 hosts largest public library of Scandinavia and follows the hybrid typology. The building also houses a citizen service centre, office space and new waterfront public squares. The project is situated at the mouth of the Aarhus River in one of the most prominent sites of the city centre of Aarhus.²⁹



Figure 9 Dokk1

Conclusion

This research is connected to and therefore defined by a design assignment. Therefore this research focusses mainly on the research of case studies and tries to directly learn from that. This approach of research by design is for me the best way for solving the design problems and finding the most suitable solutions to the design assignment.

In the research and design I want to redefine the way cultural area's and museums are looked upon to make them more attractive to a wider audience that normally wouldn't visit a cultural area or museum. It aims to create an alternative to the classic typology of the museum. The research and design try to show that a museum or cultural area can also function in a more social and inclusive way. This case can then be an example for future projects.

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