

Urban Acupuncture in Rotterdam



**As an approach towards
urban identity**

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master thesis at the chair group of Landscape Architecture at
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Master Thesis Landscape Architecture
August, 2012

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'The theory of Urban Acupuncture celebrates the possibility of a light weight touch with a total impact'

Casagrande, 2009

Preface

This report is the result of research done on the topic of Urban Acupuncture as an approach towards urban identity. This research has been conducted as part of my master thesis in Landscape Architecture and Planning at the Wageningen University. In this thesis it is shown that Urban Acupuncture can be helpful to strengthen the identity of Rotterdam, a city in The Netherlands coping with a negative image ever since. It is my wish and hope this thesis will be an inspiration for those working in the field of Urban Planning in a way it contributes to the discussion of how to deal with urban identity nowadays. I also hope this thesis reveals the potential of Urban Acupuncture to solve more than just identity problems in cities.

I would hereby like to express my gratitude to my thesis supervisor Ir. Gabriëlle Bartelse for her enthusiasm, inspiration and motivation throughout the process. Without her help and guidance during my so many meetings with her, I would have never been able to successfully bring this thesis to an end. Also I would like to thank Marlies Brinkhuijsen for her comments during my green light presentation and helping me out on the general structure of this report. Both are thanked for sharing their experience and knowledge.

Furthermore, I would also like to express my gratitude to Ir. Martin Looije of the municipality of Rotterdam for providing helpful information. Also thanks to all the employees of the municipality of Rotterdam as so many has helped me out on so many different questions. Special thanks also to my colleague student for their critical feedback during our thesis meetings, positive feedback and pleasant company. Special thanks are owed to fellow student Darius Robert Reznik, who help me out on SketchUp (and more) so many times. I would like to thank them for all their invested time and energy. Last but not least, I could never have completed this thesis without the support of my family and friends. Thanks!

Sjoerd Radstaak,
Wageningen 2012

Recently, globalisation and related processes have resulted in a loss of urban identity in many contemporary cities worldwide. This has not only resulted in more homogenous and standardized cities, but also affect our daily life in a broader physical, cultural and emotional context. In contrast, it's now cities desperately are in need of a strong identity 'so that their economic value in the world can increase and investment can be made there for their development' (Baris et al., 2009: 733). Therefore, the relevance to sustain and further enhance identities of cities is high and has been the purpose of this MSc-thesis.

But what is this urban identity? Wit literature on this concept being abundance, but with so many related topic, it's a hard questions to answer. However, it seems that most importantly urban identity needs to address both the physical as well as the social world. Urban identity does not only involve places having a distinctive character but also people should have a certain feeling of belonging to that place. Therefore, places with both unique and identifiable characteristics as well opportunities for personal involvement are most successful in creating a strong urban identity.

As a case study Rotterdam has been selected, a city in the south-western part of The Netherlands which have never been very popular amongst its visitors. However, Rotterdam has a unique profile due to its development as an international port, the bombing during World War II and hereafter its post-war reconstruction and its strong focus on high-rise over the past 30 years. However, its these two later identities that have slowly started to dominate the city centre. With both later identities obsessed with huge and tall buildings, I believe Rotterdam's identity is now high up in the sky where there are no people. In these years, public space - where actual public life takes place - have been forgotten and subsequently ignored. They are abandoned, under-utilized and undifferentiated, resulting in simply dead spaces. One could refer to this as a city out of balance, where architecture have received too much attention and public space too little.

Also, I believe, Rotterdam six major problems are a direct result of this unbalanced identity, either being it a direct result or not. The solution to almost all six of these problems can be partly found in the restoration of this former port identity. For example, the canals and former harbours conceal an excellent opportunity to counter the lack of human scale in Rotterdam's city centre and focus on small-scale projects instead. If Rotterdam succeeds in bring back this port identity in its city centre, I believe the city will become more human and as a result instantly become more hospitable, warm, personal and cosy - an atmosphere now missing.

One way to achieve this goal - reinforcing the identity of Rotterdam's city centre - is by using the concept of Acupuncture -solving urban problems all over the world by focusing on accurate interventions on the small scale but generating a positive effect on the scale of the city too. By doing so, one can tackle a whole spectrum of urban problems all over the world, including urban identity. It is important that these acupunctural interventions are accurate, small-scale and aimed at having a catalytic effect for the immediate surroundings. Furthermore, although debatable, they have to be implemented within a short period of time and low in costs. Taking into account the current worldwide economic crisis, this last criteria is interesting although not met by some of the projects claiming to be Urban Acupuncture.

Cities that have used Urban Acupuncture as an approach towards urban identity show that the way to do so differs and also their focus differs. While city decides to work with art projects throughout the city, another decides to use architectural icons as their focus. It is context-dependent what a city should take as their focus. Also the case studies are not always in accordance with the five elements of Urban Acupuncture. For example, the Bilbao Guggenheim Museum, has not been cheap at all and instead has been really expensive. However, one should keep in mind that there does not seem to be consensus about what can be seen as proper Urban Acupuncture and what not - this being the first time these have been tried to distinguish.

Scientific literature on how to properly link both concepts is even more scarce, but based on literature on those separate topics and the case studies there does not seem to be a direct link. An intermediate step is needed to strengthen the identity of the cities, one which identifies where to focus on - the so-called focal point(s). Once identified, Urban Acupuncture can help to locate these projects being part of a city's strategy to reinforce their identity. It helps to find the right nerves to act upon and narrows down the possible options.

Although this approach can be and has been applied in cities all over the world, combined with the wish and need to restore the port identity in Rotterdam's city centre, it will be applied along a series of streets just east of the main shopping areas in the centre. This is one of the few direct routes from the centre to the Maas and also lots of water can be found all along. Despite the potential to be this connection a real attraction where the historical identity of the port can be truly felt, its waterways are now neglected in many ways and also other problems occur all along, resulting in a chain of disconnected streets having no common identity and with many anonymous public spaces along. In my opinion, Urban Acupuncture can again solve many of its problems.

The actual acupunctural intervention involves the making of artificial islands right next to the staircases - the true hidden gems along the water. Here one can 'touch' the water, but now these places are badly maintained, polluted and very much anonymous. By the realisation of islands next to them, in the future thus will be recognizable places along celebrated waterways. These small-scale projects will address the issue of a lack of human scale in downtown Rotterdam and, furthermore, by turning them into three very different City Lounges ('The Living', 'The Swing' and 'The Palm') not only the city's second frustration - a lack of conviviality - will be addressed but also they will be very unique and identifiable places which not only inhabitants will know but also those visiting Rotterdam. Places to come to to relax, enjoy or rest.

On the level of the connection, by celebrating its waterways, also problems can be solved as these island have the power to connect on a horizontal and vertical level. Horizontal, as they can be the recurring elements along the series of streets which will help people perceive and experience this as a whole ('a string of pearls'). Vertical, as the historical attachment with the water in the city will be restored and, on a more direct level, connect the streets with its neighbouring water. Also, I believe these aquapunctural interventions will be able to regenerate the parts of the connection which are now deserted and lifeless and ultimately, by doing so, these islands will add up to not only the identity of these streets, but also the district and the city. It thus proves urban Acupuncture can help to strengthen the identity of cities.

Keywords: *Urban Acupuncture, urban problems, city (life), place-making, public space, City Lounge, identity, small scale, Rotterdam, Urban Design*

Table of content

Preface	VI	5. Case studies	81
Summary	VIII	5.1 Bilbao, Spain	82
1. Introduction	15	5.2 Milan, Italy	86
1.1 General problem	16	5.3 Barcelona, Spain	88
1.2 Purpose and significance	16	5.4 Philadelphia, USA	94
1.3 Motivation and fascination	17	5.5 Conclusion	99
1.4 Role of Landscape Architecture	17	6. Urban Acupuncture as an approach	105
1.5 Research question	18	towards urban identity	
1.6 Methodological framework	18	6.1 The missing link	106
1.7 Outline of the report	20	6.2 The role of Urban Acupuncture	109
Part A-1: Theoretical framework		6.3 Conclusion	110
2. Urban identity	23	Part C: Design	
2.1 Definition	24	7. Site context	113
2.2 Elements	25	7.1 Introduction	114
2.3 Construction	26	7.2 Problem	116
2.4 Physical elements	28	7.3 Identity	120
2.5 Social elements	29	7.3 Zoning	122
2.6 Principles	30	7.4 Urban Acupuncture	124
2.7 Imageability	32	7.5 Staircases	128
2.8 Conclusion	34	7.7 Conclusion	132
Part B: Rotterdam		8. Design	135
3. Urban context	39	8.1 Urban Aquapuncture	136
3.1 Introduction	40	8.2 Haagseveer	140
3.2 History	41	8.3 Hang	154
3.3 Identities	48	8.4 Wijnhaven	168
3.4 Out of balance	56	8.5 Conclusion	182
3.5 Problems	60	9. Epilogue	185
3.6 Solutions	62	9.1 Conclusion	186
3.7 Conclusion	64	9.2 Discussion	188
Part A-2: Theoretical framework		9.3 Recommendations	190
4. Urban Acupuncture	69	References	192
4.1 Acupuncture	70	List of illustrations	202
4.2 Definition	71		
4.3 Elements	72		
4.4 Theory	74		
4.5 Strategies	75		
4.6 Conclusion	78		

Introduction

1



1.1 General problem

Over the past years, many theorists (for example Oktay, 2002, 2006; Baris *et al.*, 2009; Ujang, 2010) have pointed out the loss of urban identity in contemporary cities, mostly due to globalisation and associated processes (Baris, 2009; Mohammed, 1998)*. According to many, this has resulted in 'the existence of relatively homogenous and standardized landscapes which diminish the local specificity and variety of places that characterized pre-industrial societies' (Relph, 1976. In: Antoniou, 2011: 15). In turn, this results in a decline of the quality of life for its inhabitants (Sepe, 2009). Furthermore, this loss of identity weakens the depth of meaning, attachment and diversity of place experience (Ujang, 2010). Thus, the loss of urban identity indirectly affects more than just the city itself.

1.2 Purpose and significance

In line with this last statement, the loss of identity has serious consequences within our broader physical, cultural and emotional context. Significance is high, as Hull (1994) and others also show that the identity of places contributes to self-identity, health, sense of community and sense of place. Furthermore, within an economical context, in this era of globalisation, 'cities should make more use of their own identities and qualities and so create opportunities to utilize the spatial differences as selling points' (Lupi *et al.*, 2010). Oktay even proclaims 'identity is one of the essential goals for the future of a good environment' (Oktay, 2002: 261) and being 'an important factor to enhance the quality of urban life (...)' (Oktay, 2006: 2). Therefore, it is important not only to sustain urban identity, but also to reinforce and strengthen the identity of cities.

In this MSc-thesis that will be done with the help of Urban Acupuncture, an approach that have develop over the years to tackle a whole spectrum of urban problems including urban identity. It can best be described as 'a model of urban transformation in which large scale changes (...) are obtained on the basis of numerous small and individual strategically situated interventions' (Acebillo (2006: 55). Hence, the purpose of this MSc-thesis is to enhance urban identity taking Urban Acupuncture as starting point. As a case-study Rotterdam is selected, a city in the Netherlands in search for its identity ever since its historical identity was lost during the bombing in World War II.

* Although this point of view is debated between scholars, it is beyond the scope of this MSc-thesis to further investigate.

1.3 Motivation and fascination

The topic of this MSc-thesis was born from a fascination for urbanism and a preference for the small-scale. As a combined result, topics of personal interests include urban design, city life and public space. Furthermore, small scale urban designs having an effect not only on the site itself but also beyond, have also my interest. An example of an urban project which inspired me throughout this thesis is Stadtlounge in Sankt Gallen (Switzerland; figure 1.1). Here, an otherwise dead urban space of purely office buildings is turned into a real attraction, giving this financial district a strong identity while also connecting with the public space and life of downtown Sankt Gallen. This artificial project touches both upon the place and the people of the city's centre, a wish I can only hope for.

1.4 Role of Landscape Architecture

Landscape architects, architects and urban planners play an important role in affecting the city's identity, as 'urban design, playing an important role in the processes of formation, change and reproduction of urban identity, is one of the most important factors affecting urban identity both physically and socially.' (Baris *et al.*, 2009: 724). Here, it is concluded 'urban design (...) must be carried out with a consciousness of social responsibility under an urban strategy on which there is a comprise, and with collaboration of all professional disciplines which can contribute to it. This approach would make important contributions to the city, the citizens, city culture and to urban design which could have positive effects on urban identity' (Baris *et al.*, 2009: 734).

Also Oktay frequently refers to the responsibility designers have regarding urban identity, as 'architecture and landscape architecture must respond and aim at strengthening the meaning and sense of place' (Oktay, 2006: 16). Therefore, she claims, 'cities and urban projects should always be seen, considered and devised within the appropriate context, culturally and environmentally' (idem). She believes that it is crucial that 'the urban design scale concerning with the creation, regeneration, enhancement and management of the built environments which are sensitive to their local context and sympathetic to people's needs should not be neglected' (2006: 17). In another article of her hand, she proclaims 'designers should give prominence to the perceptual richness and use of the spatial environment paying specific attention on local characteristics' (Oktay, 2002: 270). Thus, both Baris *et al.* (2009) and Oktay (2002; 2006) point out that we have to be aware of and take responsibility for our role as landscape architects in the process of addressing the identity of contemporary cities worldwide.



Figure 1.1: Stadtlounge, Sankt Gallen (Switzerland)

1.5 Research questions

Following up the general problem and purpose of this MSc-thesis, the main research question to be answered will be:

- How can the concept of Urban Acupuncture strengthen urban identity?

To properly answer this question I will first have to fully understand both the concepts of urban identity as well as Urban Acupuncture. Both these questions, amongst others, will be addressed in one of the several chapters which will be discussed more in detail below.

1.6 Methodological framework

After the general problem, a worldwide loss of urban identity, is identified, it is easily to come up with a purpose to address this loss of identity in contemporary cities: to reinforce urban identity. To do so, Urban Acupuncture is taken as a starting point here - 'a targeted (small-scale) approach to "healing" the (large-scale) malady of urban decay' (Miller, 2011). The corresponding research question (see above) to be raised addresses the interrelatedness between both concepts.

Consequently, the theoretical framework will be split into two parts involving both urban identity and Urban Acupuncture. In the latter case, case-studies will be explored more in depth - not only to get a better understanding of the acupunctural approach but also to help answering the main research question. Hereafter, in the conclusive chapter of the framework, the main research question will finally be answered. This will be done based on extensive literature research.

The theoretical framework is the basis for the analysis of Rotterdam. Although both parts are inextricably linked to both the urban context and the site context, the theory of urban identity directly affects the urban context while Urban Acupuncture affects almost only the site context. This is in line with the outline of the report, but for the sake of clarity not shown in the table 1.1. Next to literature research, field study will be done in Rotterdam to investigate both contexts.

Based upon the analysis of Rotterdam and the theory of both the concepts of urban identity and Urban Acupuncture, the next step will be the design itself. Most importantly, the design has to reinforce the identity of Rotterdam. In the last chapters, including conclusion, discussion and recommendations, I will critically reflect upon my work in this thesis and by doing so the outcomes can be used to help understand the coherence between urban identity and Urban Acupuncture.

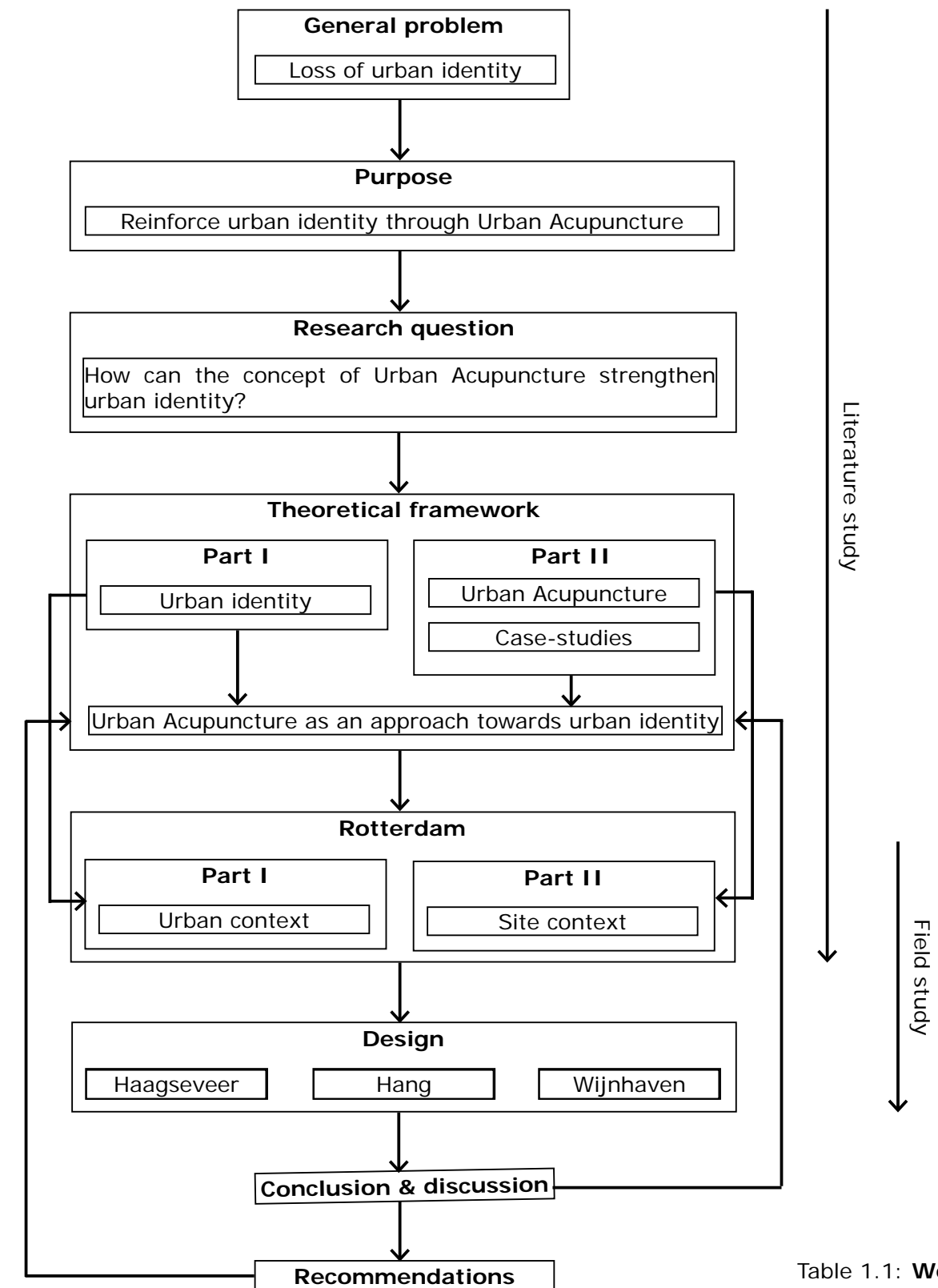


Table 1.1: Work process

1.7 Outline of the report

This thesis report includes nine chapters. In the first chapter, of which this subchapter is part, the general problem, purpose and significance, research question and methodology will be introduced as well as the role of Landscape Architecture in this process and my personal drive working on this topic. The report is further divided into four main parts, which will be discussed below.

The first part, part A-1, comprises the first part of the theoretical framework. In this chapter, the concept of urban identity will be dealt with. Not only a definition is given, but it is also tried to differentiate between the different elements that make up identity. The complexity of this concept and the strong interdependence with the social world (both the self and others) becomes clear in the chapters on its construction and principles. Before come to a conclusion, Lynch's famous concepts of legibility and imageability are linked with identity.

The second part, part B, includes one chapter which after a short introduction, addresses the reciprocal relationships between the history of Rotterdam, its current multiple identity and its developed out of balance situation over time. Then I will show how Rotterdam's most urgent urban problems are a direct result of this imbalance and how solutions are related by balancing this multiple identity of Rotterdam's city centre.

The third part, part A-2, describes the second part of the theoretical framework: Urban Acupuncture. Here also not simply a definition is given, but elements are discussed, the theory behind revealed and strategies unfolded. In a second chapter, four selected examples of Urban Acupuncture, all aiming at reinforcing the identity of the city in question, will be discussed and can be an inspiration for Rotterdam. In the third and final chapter of the theoretical framework, it is explained how the urban acupunctural approach can help to reinforce urban identity.

The fourth part, part C, comprises two chapters, namely site context and design. In this first chapter the design location in Rotterdam will be introduced, problems discussed and a future vision proposed. More importantly, an urban landscape analysis will form the basis of the subsequent chapter in which the design concept will be introduced, followed up by the actual design which consists of three separate designs including accompanying maps, sections and future impressions.

Hereafter, I will come up with a conclusion, a discussion and recommendations for the future. References and the list of illustrations are the closing chapters of this thesis.

Urban identity

2



To be able to reach the goal of reinforcing urban identity using the concept of Urban Acupuncture, one needs to know not only about Urban Acupuncture but also about urban identity. Therefore, in this chapter, focus will be on this concept. However, it is beyond the scope of this thesis to give a comprehensive definition of this concept. Therefore, the concept of identity is too ambiguous and literature too extensive. It is thus tried to give a basic definition of both identity (in general) and urban identity, paying special attention to how the environment affects the shaping of identity. In the conclusion, some final important remarks will be presented.

2.1 Definition

To come up with a relevant definition of identity is not an easy task. Nevertheless, many theorists have tried to define identity over the past decades. A useful definition of this concept within the scope of this MSc-thesis, is given by Menchawy *et al.* (2011: 302) defining identity as 'the distinguishing character (...) of a (...) thing according to place within historically specific discourses'. He further describes this character as '(a) set of unique characteristics (physical features) by which a thing (...) is recognizable or known'. Thus, one can conclude, identity is linked with being distinctive, unique and recognizable and, by being so, identifiable from others.

Since long theorists trying to define place identity refer to these terms also, starting with Lynch defining 'the identity of a place as that which provides its individuality or distinction from other places (...) serving as a basis for its recognition as a separable identity' (1960: 5) and Prince (1961: 22) saying that 'both region and writer, person and place, are unique and it is in their distinctive qualities that we find their essential character'. In line with this, Oktay (2002: 261) and Thompson (2002) state that 'like individuals, cities should have character and distinctions (and) like individuals (that) this (...) is made up of numerous characteristics or identifiable elements.' What these characteristic elements are, I will come to later.

However, there is more than just the outside, physical world. There is also the people. Already in 1965, Nairn (1965: 78) said that 'there are as many identities of place as there are people' '... as for identity is in the experience, eye, mind and intention of the beholder as much as in the physical appearance of the city or landscape' (Relph, 1976: 45). Hague and Jenkins (2003: 5) also talk about 'objective physical realities in a place' plus 'personal and highly individual reactions to any place, (which) are triggered not only by physical features but also less tangible meaning and memories'. With this, both Relph and Hague and Jenkins acknowledge the duplicity of place identity, being existent both in the physical and social world.

2.2 Elements

Before, it was said that character and distinction are created by 'numerous characteristics or identifiable elements'. These characteristic elements are at the heart of the development of urban identity itself. Oktay (2006: 1) refers to this process, when she states that 'urban identity is created through the complex interaction of natural, social and built elements.' Also Baris *et al.* (2009: 734) refers to these elements when he concludes that 'urban identity is a dynamic fact taking its shape from and changing under the effects of the natural and artificial (i.e. built, author) physical elements and the social factors canalizing these elements. Urban identity of a city becomes most legible at urban spaces where the natural and social characteristics of the city are reflected.' Thus, as it seems, urban identity is at the interface of the city, the people and the environment.

Interestingly, from these three elements, Oktay claims that these built elements, that what architects, landscape architects and urban designers are working with, 'are the critical forms in terms of influencing the identity both in negative and positive ways within a short period of time' (Oktay, 1996. In: Oktay, 2006: 1). Raja (2003: 87) calls this the collective built identity: the facets of identity which are represented through the built environment in an urban context (figure 2.1). Hence, architects, landscape architects and urban designers seem to be very influential in affecting (a part of) urban identity.

However, if we consider the four elements of place identity identified by Amundsen (2000), the built (and natural) elements only make up for a small part of this identity. Next to spatial qualities that distinguish the place from others, e.g. location, but also the infrastructure, communication and architecture (thus including natural and built elements), he discerns three more: characteristics or qualities of inhabitants that distinguish them from inhabitants of other places, like values, customs, visual appearance; social conditions and social relations between the inhabitants; culture and/or history, seen as a unifying elements that again connects the inhabitants to traditions and again distinguish them from 'the other'. These take the form of a narrative, 'a coherent story with high and potent argumentative and symbolic value' (2001: 13-14). These narratives will link and explain these components of place identity (Hague & Jenkins, 2003).

Although somewhat outdated, Relph's view on what constitutes identity is also interesting for this thesis as it makes the concept more tangible. According to him, there are also three components that make up the identity of places which are the static physical setting, the activities and the meanings.



Figure 2.1: The collective built identity of Amsterdam Arena Boulevard

Together, these fundamentals are inseparably interwoven in our experiences of places. However, while they are the raw materials of place identity, the dialectal links between them are the elementary structural relations of that identity. For example, activities and meaning combine in many social acts and shared histories that have little reference to physical setting. This makes clear that these basic elements are not equally involved in the different aspect of the identity of places. In the last place, Relph adds spirit of place, sense of place and genius loci, serving to link and embrace both components and dialectics (1976).

Now we have discussed three authors (Okta, 2006; Baris, 2009), Amundsen (2000) and Relph (1976) all reflecting on the components of urban or place identity, it can be concluded that this identity always comprises a more tangible and less tangible component. All three authors identify the tangible physical world, although terms used are different being the natural and built elements, spatial qualities and physical setting. All identify the less tangible (social) aspect too, but some split it while others don't. For example Okta (2006) and Baris (2009) refer to them as social elements, while Relph's activities and meanings are clearly intangible. Amundsen's components are sometimes being both, like his characters or qualities of the inhabitants and culture and/or history (figure 2.2). It seems that all this is in line with what is concluded from the first subchapter, that place identity clearly has two 'faces', being either physical (tangible) or social (intangible).

2.3 Construction

Now we are familiar with some regularly used definitions of urban identity and with its basic elements, we don't know exactly how place identity is formed. It seems already clear that this process is very complex and here it has to be repeated that it is beyond the scope of this thesis to fully explore and explain this construction of place identity. However, to get a better understanding of how one can influence urban identity in order to reinforce it, one needs to know a bit about it.

From what Okta (2006) and Baris (2009) tell us, it seems that the complex interaction between the natural, built or artificial and social elements are at the core of this construction process. From Baris statement that the effect of the natural and artificial elements are canalized by social elements it can already be concluded that a special role is devoted to the people in this process. Also Relph pays attention to the elementary structural relations (dialectical links) and concludes that what links his three components and associated dialectics is spirit of place, sense of place or genius loci - which are all closely bound to people as one will read further on.



Figure 2.2: A medieval festival, an example of Amundsen's cultural/historical component

Hague and Jenkins also stress that identity is, so to say, socially constructed. In else, 'our capacity to identify a place as a place is shaped by what others tell us about the place, and filtered by our own socialization, as shaped by class, age, gender, (...)' (2003: 5). They claim it is exactly 'this process of receiving, selectively reconstructing, and re-communicating a narrative that constitutes identity (...)' (idem). This is why Rose (1995: 89) conclude that 'although senses of place may be very personal, they are not entirely the result of one's individual's feelings and meanings'.

Hague and Jenkins, in their concluding remark, even state that 'place identities are formed through milieus of feelings, meanings, experiences, memories and actions that, while ultimately personal, are substantially filtered through social structures and fostered through socialization. Thus place identities are relational - i.e they are formed in relation to other people, other places and other identities for that place' (2003: 7). According to Hague and Jenkins (2003: 6), it is this shaping between individuals, groups and others, 'as a basis to claim authenticity, originality and singularity (...)' These terms, and also other like distinctiveness or essentials, which are the basis of identity, 'become such through interpretation, communication and action within a context and not in isolation' (2003: 7). Thus, place identity is clearly socially constructed.

This relational aspect can also be linked to the fact that identity is not only a relation based on difference, but also on similarity. This is already acknowledged by Relph when he claims that 'the identity of something refers to a persistent sameness and unity which allows that thing to be differentiated from others' (1976: 45). To my opinion, this can be linked to both Hague and Jenkins' claim that identity is about 'us' and 'the others' (2003: 6) and, at the same time, the concept of insideness ('us') and outsideness ('the others') by Relph which means 'to be inside a place is to belong to it and to identify with it, and the more inside you are the stronger is this identity with the place' (1976, 49). It is 'the experience of an 'inside' that is distinct from an 'outside' (...) and this is what sets places apart in space and defines a particular system of physical features, activities and meaning' (idem). So, a feeling of 'insideness' also influences the components of place identity.

A lesson to be learnt from this, is that the construction of place identity is - in the end - a social process. Place identity thus seems to be something that is socially constructed in the mind of people. Nevertheless this does not mean that for everybody the identity of places is totally different, 'as these identities are (...) combined intersubjectively to form a common identity' (Relph, 1976: 45). Thus, this is what I will look for later on in this thesis in the case of Rotterdam.

2.4 Physical elements

I will now elaborate on the physical aspect of place identity, mostly on how these, which make up the environment around us, affect urban identity. Following Baris *et al.* (2009) these physical elements include the natural and artificial (i.e built) elements, 'excluding' the social elements. Also Oktay (2002) opens by focusing on both these elements, claiming that the physical and natural elements form the local context. She focuses on how this local context can be formed and how to give an area its physical identity and to make it a place with its own character. How this can be done will be discussed below.

According to Oktay (2006), to create places with a own character, this being the main characteristic of urban identity, the perception and interpretation of visual forms is very important as they strongly affects how we make use of the city though they constitute the physical context. Following Oktay, this is due to the following qualities: the style and proportions of the buildings; their colours and materials; the attractiveness of the relationships between buildings and spaces, trees and landscaping and, finally, the design of street furniture (figure 2.3), signs and ground surface. Also Dougherty (2006) emphasises that specific design elements, including plants, materials, art objects etc. 'bring out those qualities that make a (...) city or neighbourhood unique' (Hough, 1990: 178).

However, Oktay (2006) and others also acknowledge that character has more than a purely visual or spatial dimension. In this context, she refers to the concept of genius loci being the character of the site - not only geographical, but also from a historical, social and especially aesthetic character. An area's character is furthermore experienced through its buildings and networks, and, referring to Manley and Guise (1998) should also include a sensory experience of sounds and smells as well as sight.

Also Oktay (2006) refers to the pattern of uses and activities as an determinant of an area's character. Here, she follows Jacobs (1961), when stating that 'activity both produces and mirrors quality in the built environment'. This is referred to by Dougherty (2006: 4) by claiming that 'if the functions of a space meet user needs, the continued use of the space also built attachment to it'. This reinforces the identity of places. Jacobs identified four conditions, or better needs, to stimulate activity and use of public space in cities: the need for mixed primary uses, small blocks, variety of buildings types, ages, sizes and conditions and concentration (of people). This leads to city diversity, which 'itself permits and stimulates more diversity' (1961: 157).

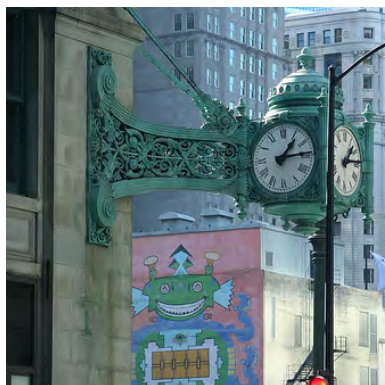


Figure 2.3: **Street furniture reinforcing urban identity**

For this reason, both Oktay and Baris *et al.* propose in their conclusion to include in urban design not only the physical public space itself, but also social phenomena (Baris, 2009), as well as the people, events and relationships between them (Oktay, 2002). She also proposes to include all the buildings, spaces and objects in an urban area. By doing so, this also includes uses and activities - affecting urban identity. In conclusion, it seems that in order to be effective in creating a character or physical identity one must not only focus on the physical features but, as expected, should include the social elements too which will be discussed below.

2.5 Social elements

There is much evidence that 'citizens define the city and its identity not only with physical elements but also with social elements' (Baris *et al.*, 2009: 732). From the research done by Baris *et al.* (2009) it can be concluded that the perception and identity of cities is mostly based on subjective conditions, like cultural background, age, or educational level. This is also in line with Hague and Jenkins argument that place identity is socially constructed. This makes identity not only more hard to grasp, but also more difficult to work with as these independent factors are beyond the influential zone of architects, landscape architects and urban designers.

Another example of such a factor is time. The importance of this is highlighted by Manley and Guise (1998) as they proclaim that 'a place can only gain character over time. When people have been able to adapt and alter it and when they have evolved their own images of that distinctive place in their minds.' (In: Oktay, 2006: 2) In else, new urban developments will need a certain time to evolve in such a way people can built emotional attachment to it and can identify with that place.

Related to this adaptation and alteration of places is the process of belonging, which is frequently mentioned by several authors. Even back in the seventies of the 20th century, Relph (1976: 147) acknowledged that there is 'a deep human need exists for associations with significant places.' Also Baris *et al.* state that 'citizenship (...) is related to apprehending the city and developing a feeling of belonging to it' (2009: 733). And also Oktay agrees upon this, claiming that people 'need to feel a sense of belonging to a collective entity or place' (2006: 1) and 'should feel that some part of the environment belongs to them (...), for which they care and are responsible' (2002: 261). Thus, she continues, 'the environment should be such that it encourages people to express themselves and to become involved'. This latest term, involvement, can be a tool to be worked with when it comes to reinforcing urban identity, as one will see in a later chapter (figure 2.4).



Figure 2.4: **Direct involvement in urban design**

If we come back to this feeling of belonging, concepts closely linked to these are sense of place and place-attachment. Based on literature, it seems that *genius loci* is linked to the more physical aspects, while both these two concepts are related to the more social aspect of urban identity (Shamai, 1991; Jivén & Larkham, 2003). Also, Shamai (1991) thinks of sense of place as an umbrella concept that includes place-attachment, being 'a positive effective bond between an individual and a specific place (...)' (Hidalgo & Hernandez, 2001: 274), and thus defines sense of place as 'feelings, attitudes and behaviour towards a place, (...) consisting of knowledge, belonging, attachment and commitment to a place (...)' (1991: 354). In line with arguments of Relph (1976) and Oktay (2002, 2006), he also states that 'to create a sense of place, there is a need for a long and deep existence of a place, and probably involvement in the place' (1991: 348).

To conclude with, it seems to be difficult to work with the social elements of place identity as there are mostly beyond the influence of those involved in urban design. Besides, the concepts related to these social elements are abstract and not easily translated into tools to work with, reinforcing identity. So far, it seems that only involvement in the place can trigger place identity because it evokes a sense of belonging. This can be traced back to the activities and uses we talked about in the previous subchapter and thus it is important to leave room for this in the city.

2.6 Principles

Now we have discussed the definition, construction and elements of place identity, we will shortly explore this concept also from the perspective of sociology to provide insight into the reasoning of the self behind the processing of information as part of the social constructivism of place identity. We will focus our attention on an article by Twigger-Ross & Uzzell (1996). This is based on Breakwell's identity process model (1986), claiming that 'identity should be conceptualized in terms of a biological organism moving through time which develops through the accommodation, assimilation and evaluation of the social world. The selection of information (...) is governed by four principles' (Twigger-Ross & Uzzell, 1996: 206). The first principle, *self-esteem*, refers to a positive evaluation of oneself or the group which one identifies. It concerns a person's feeling of worth or social value. In this regard, Twigger-Ross & Uzzell (1996) mention also that a person can feel a sense of pride by association through living in a historic town (figure 2.5) (Lalli, 1992; Uzzell, 1995). It suggests that a person gains a boost to his/her self-esteem from the qualities of the place (Twigger-Ross & Uzzell, 1996).



Figure 2.5: The historic city of Saint-Malo (France)

The second principle, *self-efficacy*, is defined as an individual's belief in their capabilities to meet substantial demands. Regarding the environment, feelings of self-efficacy are maintained if the environment facilitates or at least not hinder a person's everyday lifestyle. A manageable environment thus here means that one is able to carry out their chosen activities in the environment, a feeling of being self-efficacious with respect to the daily environment (idem).

The third principle, *distinctiveness*, is the desire to maintain personal distinctiveness or uniqueness. Research on settlement identity (Feldman, 1990) and community identity (Hummon, 1990) stated 'distinctiveness as a lifestyle and establishes that person as having a specific type with his/her home environment, which is clearly distinct from any other type of relationship' (Twigger-Ross & Uzzell, 1996: 207). Thus, 'a resident's association with a specific town or area of town people enables them to differentiate themselves from other parts of town' (idem).

The fourth and last principle is *continuity*, being defined as continuity over time and situation between past and present self-concepts. In literature, two distinct types are identified, namely place-referent continuity and place-congruent continuity. In the first type the physical environment is conceptualized as a reference for the past action and experience and the landscape is used as a memorial to the person's past. It thus refers to the maintenance of continuity via specific places that have emotional significance for a person, while place-congruent continuity – the second type – refers to the maintenance of continuity via characteristics of places which are generic and transferable from one place to another. Unwanted disruptions to emotionally salient places can threaten the self, as can the absence of place-congruent continuity can lead to general dissatisfaction (Twigger-Ross & Uzzell, 1996).

In conclusion, all these aspects of identity will, to a greater or lesser extent, have place-related implications (Uzzell *et al.* 2002), either being social or physical elements of identity. The first two elements even sum up some more social feelings, like a feeling of pride and being self-efficacious, which can add to a feeling of belonging. Also here, distinctiveness, being the third principle, is indicated as one of the four elements of the process of identity. Interestingly, they also speak of differentiation with others and this is line with former conclusions too. Thus, identity is not only influenced by place and the self, but also others. The fourth element leading up to one's identity, continuity, is a strong argument to pay special attention to cultural heritage in cities (figure 2.6) - which can be the physical environment Twigger-Ross & Uzzell talk about regarding place-referent continuity.



Figure 2.6: Medieval street in Sighisoara (Romania), part of cultural heritage

2.7 Imageability

This chapter wouldn't be complete without having mentioned the work of Kevin Lynch, in particular his work 'The Image of the City' (1961). Although over a 50 years old now, many theorists still refer to him and even use his theory behind 'how the form of the city can make it more vivid and memorable' (Dougherty, 2006: 7). In his book, Lynch focuses on one particular visual quality called 'legibility', by which he means 'the ease with which its parts can be recognized and can be organized into a coherent pattern' and, thus, he concludes that 'a legible city would be one whose districts or landmarks or pathways are easily identifiable and are easily grouped into an over-all pattern' (Lynch, 1961: 3). Lynch states that 'the need to recognize and pattern our surroundings is so crucial (...) that this image has wide practical and emotional solution', not only way-finding, but also for example offers a reference framework for individual growth and a sense of emotional security (1961: 4). A distinctive and legible environment also helps to increase the potential depth and intensity of human experience (Lynch, 1961).

People, Lynch claims, play an active role in perceiving the world, as they are the result of a two-way process between the observer and his environment. The environment suggests distinctions and relations, and the observer (...) selects, organizes and endows with meaning what he sees (idem). This image of the city is analysed by Lynch into three components: identity, structure and meaning. Lynch asserts that 'a workable image requires the identification of an object, which implies its distinction from other things, its recognition as a separable identity; (...) include the spatial or pattern relation of the object to the observer and other objects (and) this same object must have some meaning for the observer, either practical or emotional' (1961: 9). In a later book, he explicitly refers to identity as being 'the extent to which a person can recognize or recall a place as being distinct from other places' (1981: unknown). It is identity and structure together that create 'imageability', defined as 'that quality in a physical object which gives it a high probability of evoking a strong image in a given observer'. One can thus conclude, that this helps to come up with a unique and identifiable image and thus reinforcing urban identity.

If we consider form in cities, Lynch identifies five environmental elements which help to create 'imageability', which are: paths, edges, districts, nodes and landmarks. Out of these five elements, each of them has their own function in public urban space and, in one way or another, is related to urban identity. I will now shortly discuss them and special attention is paid to their role in reinforcing urban identity.

The first element, paths, are the lines along which the observer moves. People observe the city while moving through, while other environmental elements are arranged and related. The second element, edges, are lines one can't walk, mostly being boundaries or connectors (figure 2.7). They are important organizing features. The third element, districts, are those sections of the city which one enters mentally 'inside off' and are recognizable as having some common, identifying character. The fourth element, nodes, are the strategic points in a city which are the intensive foci of traffic, mostly being junctions. However, they can also be concentrations of people due to some use or physical character and are then called cores. Landmarks, being the fifth and last element, can be either radial or local. Both being types of external point-references, the first are distant ones seen from many angles and distances (figure 2.8) while the second are only visible in restricted areas and from certain approaches. Both can be effective identity-makers.

Regarding districts, Oktay (2002; 2006) frequently refers to the significance of this element in affecting urban identity. She, after Moughtin (1996. In: Oktay, 2002: 262), states that 'a creative design response to the context of the districts, by reinforcing them, can heighten local distinctiveness and create memorable places'. She also refers to paths as much attention is paid to streets. She proclaims 'streets with identical qualities play an important role in the image of the city (...) ' (2002: 264). Oktay also refers to the importance of nodes, by paying attention to squares in particular. They serve as centre and provide the necessary perspective 'in which to admire main buildings (...), whose functions as (...) landmarks (Lynch's fifth element) are thereby accentuated' (idem). However, also Jacobs (1961) uses these terms, for example differentiating between distant landmarks (size) and intimate landmarks (contrast in use and different from its surroundings) and stating that also outdoor spaces (nodes) can thus be landmarks.

The story of Lynch illustrates how identity and structure are related, how they can create a distinctive and unique image of the city and helps to understand which elements in the environment support urban identity. This also helps to make this concept less abstract. And, to come to an end, Lynch links a distinctive or - as he refers to it - legible environment with the urban experience - defined by Oktay (2002: 263) as 'the collective experience of places and spaces (...) conceived to link people and to create a vital social life.' Thus, the structure and identity of cities are here linked to both the physical elements (the image of the city) and the social aspects (the urban experience).



Figure 2.7: A fence, a typical example of a boundary

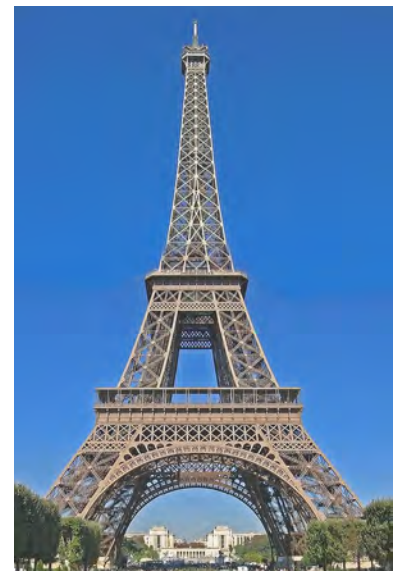


Figure 2.8: A famous landmark of Paris (France): the Eiffel Tower

2.8 Conclusion

In conclusion, urban identity can be defined as the distinguishing character of a city, consisting of a set of unique and identifiable physical elements. However, it clearly also involves more social aspects, like meanings, memories and experiences, which create a feeling of belonging to a certain place (table 2.1). Together these physical and social elements form the basis for the construction of urban identity - 'it is what a place has when it somehow belongs to its locations and nowhere else' (Hough, 1980. In: Dougherty, 2006: 5). Lynch (1980) demonstrates these are strongly connected as he describes the first requirement of a feeling of affection for a city is that 'it has memorable, vivid parts to which you can attach your meanings, so that you can say: this is my city, this is something to be proud of' (1980: 12). Later on, Lynch indeed conclude that 'identity is not a quality residing in the place, but a quality in the minds of people. It is the relationship between person and place that makes identity' (1980: 13).

This division between the visible, outside world and the invisible, inside world is clearly legible in several subchapters and, I believe, being aware of this duality in the concept of urban identity is the main conclusion to be drawn here. It is recognized by many authors too, for example Relph claiming that 'identities of places cannot be understood simply in terms of patterns of physical and observable features, nor just as products of attitudes, but as an indissociable combination of these' (1976: 59). Both Lynch and Relph in their definition stress the interdependence between both these worlds. Interesting in this regard is the definition of Kong & Yeoh (1995). Discussing place and identity, they identify two interconnections. First that place has its own identity, a character and personality that distinguishes it from other places. Second, that people identify with a place, feel a sense of belonging and attachment to it. However, they conclude that they can exist independently of the other. So, to feel a sense of belonging or attachment to place can also be related to the everyday environment we live in and thus not need to be always special places.

In the subchapter on the construction of place identity however the social aspect does even to seem become more important than the physical world as all we perceive and experience around us is 'filtered through social structures and fostered through socialization' (Hague & Jenkins, 2003: 7). So, 'place identity is largely a product of social relationships with others' (Dougherty, 2009: 4). However, Stedman (2003: 671) states we focus too much on 'place meanings and attachment as products of shared behaviour and cultural processes'. He continues by saying it's the local environment that sets bounds and give form to these constructions.

Hereafter, the physical and social elements are explored and explained more in depth, which illustrate not only their interdependence but also show that both are complex processes affected by many independent factors beyond the reach of those involved in urban design. And it shows that, also regarding the physical elements, there is more than just what we see around us, as urban identity is also related to, for example, sensory experience and uses and activities in a place. In the two last subchapters the principles of the aspect of the self behind the reasoning in the social construction of place identity are discussed and Lynch's theory shows how certain environmental elements can create a distinctive and unique image and, by doing so, supporting urban identity.

Although the importance of this social aspect is stressed throughout this chapter, focus within this thesis will be on the physical aspect. As we have read, Oktay (2006) claims that of these three elements the built elements are the most critical forms in terms of influencing the identity of cities. How this is done is not only illustrated by Oktay, but already by Jacobs and Lynch back in the sixties. This focus on these physical elements is also why Baris *et al.* (2009) put so much attention to urban design, i.e the built elements, especially under present day conditions where urban identities are rapidly deteriorating and vanishing. This importance of urban design is also recognized by Lynch (1960. In: Baris *et al.*, 2009: 724) saying: 'urban spaces created through urban design come along as determining and guiding para-meters with respect to urban identity' (figure 2.9).

Also Dougherty (2009) underlines the importance to come up with memorable and meaningful places, reflecting the city and its inhabitants, as 'these spaces make residents proud of their city (add up to its livability) and make it an enjoyable place to be. They also foster a sense of community among inhabitants by rejecting social differences' (2009: 2). Oktay, regarding urban design, denotes that since public urban spaces are major functional and visual factors in determining the urban quality, they have a significant role in making the identity of the city (2002: 264, 270). Baris *et al.* (2009) touch upon a different perspective, related to the social perspective of urban identity. They state that 'urban identity becomes meaningful only when the citizens have the feeling of faith, protection and of belonging to the city' (2009: 734). They link this meaning of places also with socio-cultural properties, political processes and the economic structure of the city and the society - which all have their effect on physical structure of urban spaces. Besides, they point out that these meanings are also the result of the people involved in urban design. And so, urban spaces communicate certain messages which are accepted by some but criticized by others.



Figure 2.9: Part of New York's identity (USA): the High Line park

Whether these messages are accepted or refused is closely related to people's consideration about the image or identity of a place. Thus, the designs of architects, landscape architects and urban designers have a considerable impact on urban identity too - not only by their physical appearance, but also their invisible message.

A final mark that can be made here involves the proper use of the term of urban identity. Some authors, like Uzzell (2002: 29), refer to the term place identification instead of place identity. Uzzell's argument to do so, although not mentioned as such, can be that 'whereas the weight of emphasis in place identification is on the place (identification refers to attributes of the place that give it a distinguish identity in the minds of residents (Schneider, 1986. In: Uzzell, 2002: 29)), the weight of emphasis in place identity is on the psychological construct of identity and its relationship with social identity' (Uzzell, 2002: 29). With reference to those professions involved in city planning and urban design, it might be better sometimes to speak about urban identification instead of urban identity.

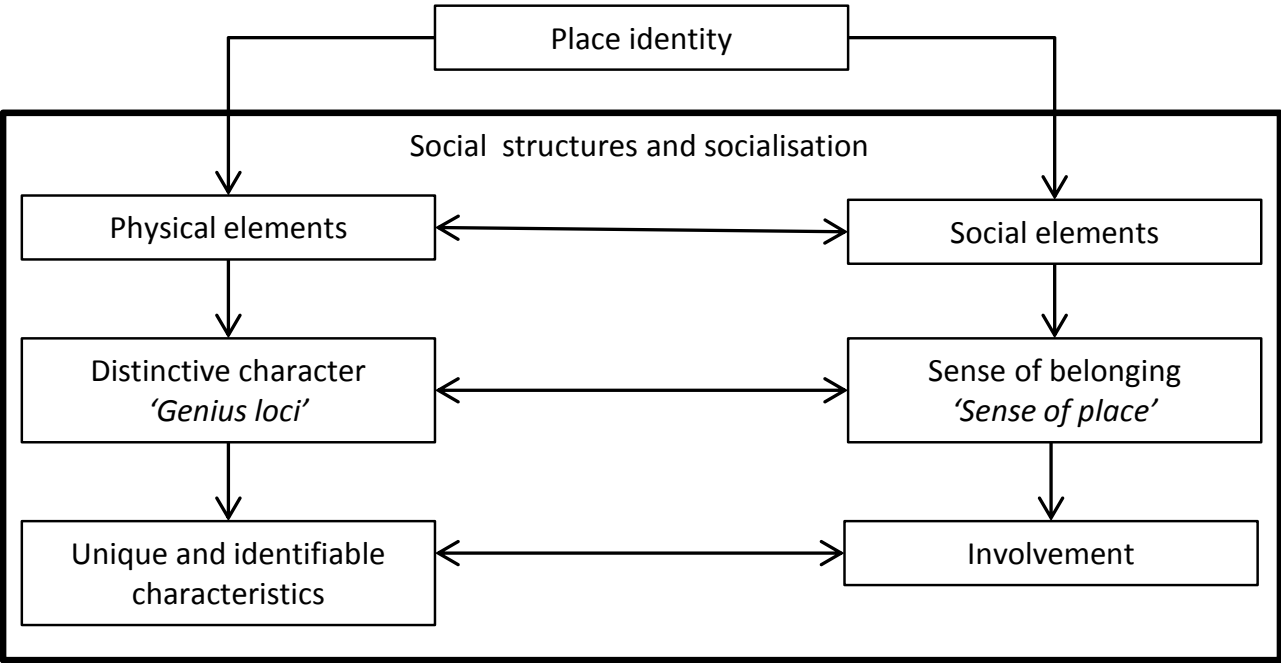
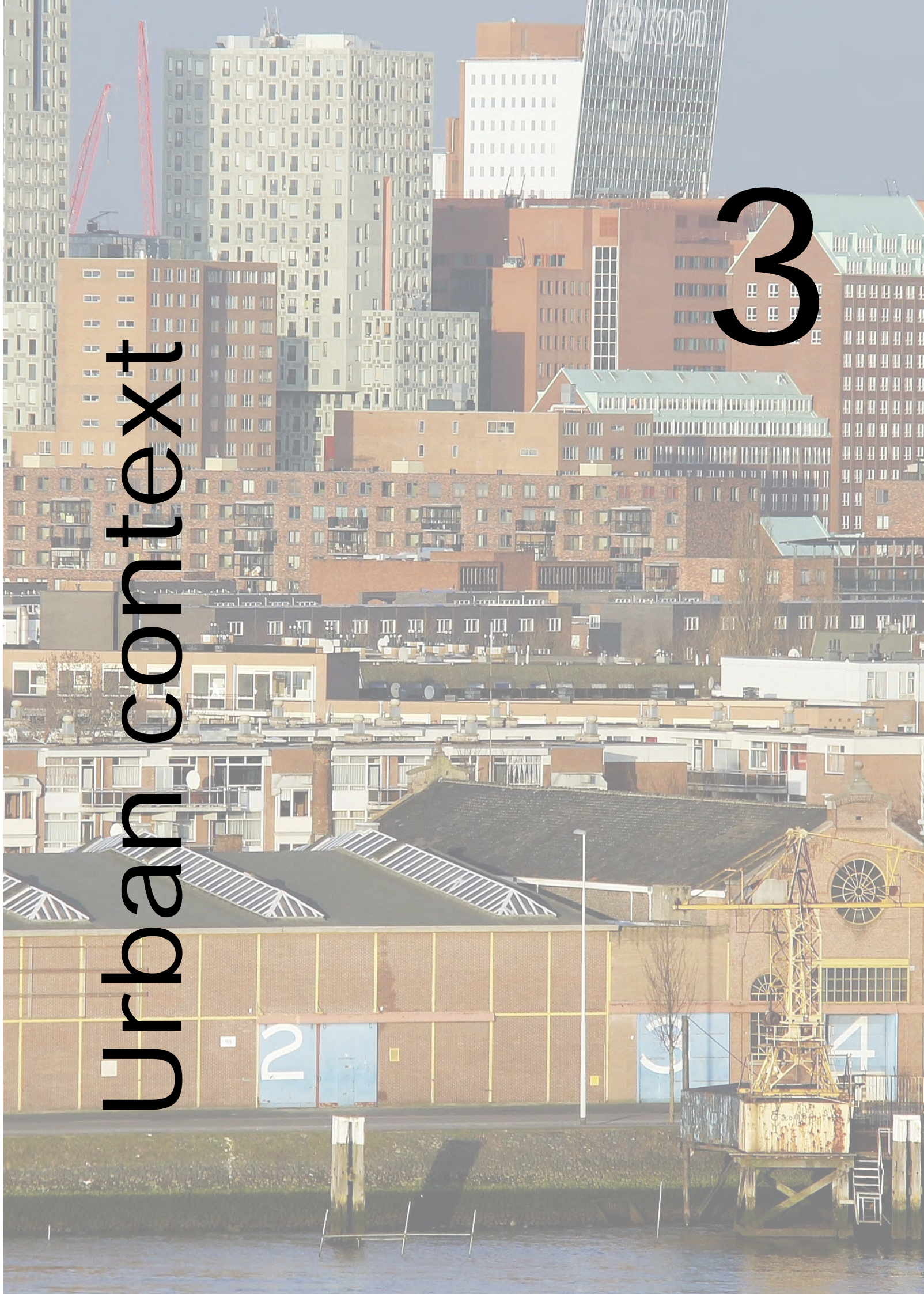


Table 2.1: The construction of place identity



Urban context

In this chapter I will start with an introduction of the city of Rotterdam, explaining why Rotterdam has been chosen in the first place. Hereafter, I will shortly describe Rotterdam's history followed by a chapter on its three distinguished identities. That these identities not only affect Rotterdam's city centre in a positive way but also are at the basis of Rotterdam's problems is described in the chapters following up. How these urban problems can be solved is proposed in the visionary chapter. In the conclusion, relations between problems, identities en vision will be drawn.

3.1 Introduction

Rotterdam is located in the southwest of the Netherlands, in the province of Zuid-Holland (figure 3.1). With 617,347 inhabitants, it the second biggest city after Amsterdam. However, with over 1.2 million people living nearby, Rotterdam Metropolitan Area is the most urbanized area in the Netherlands. Furthermore, with around 15.84 % of its municipality is devoted to (heavy) industry (van der Gugten, 2012), it's also the most industrialized area of the Netherlands. Also, with as much as 16 high-rise over a 100 meter and 3 more under construction, it's also the only Dutch city with a prominent skyline. Adding up to this the post-war reconstruction architecture after the bombing during World War II and one already has an almost complete picture of Rotterdam's city centre. Almost, as right at the centre of all this is the Nieuwe Maas - still playing a significant role in Rotterdam's port, now being the biggest and most important one in Europe. However, as one is about to discover it's just that what's so typical of Rotterdam is at the basis of Rotterdam's search for identity. I will now shortly describe why Rotterdam has been selected as a case-study to strengthen urban identity.

One of the main reasons is the unpopularity of the city amongst the most (Dutch) people. As noticed by Gehl (2007: 6), 'people don't come to visit (...) Rotterdam as an end in itself (as) the city has not been developed as a destination in itself'. Without prejudging the issues and unlike the other cases coming up where cities seem to lack a strong identity to promote oneself to the world, this is not the case in the city of Rotterdam. As one visits the city's centre, the hallmark of Rotterdam, one will easily notice its very different from other (Dutch) cities. Why will be explained in the upcoming chapters. But then still, why is it that although it seems to have a strong urban identity, the city is not popular amongst the general public. This indicates a disconnection between a negative image and Rotterdam's identity, but then what is 'wrong' with the current identity? Why is it that so many people love Amsterdam, Utrecht and the Hague but seem to ignore Rotterdam? It are these kind of questions that needs to be properly addressed in this chapter.

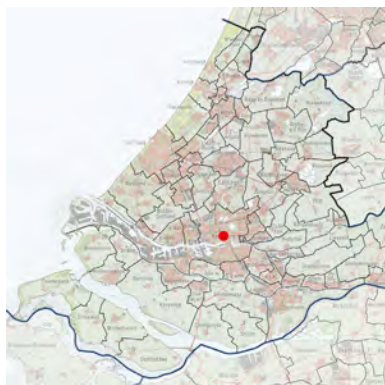


Figure 3.1: Rotterdam in the province of Zuid-Holland

3.2 History of Rotterdam

Without the need to come up with a comprehensive, full overview of the history of Rotterdam, some knowledge of its history is of importance due to the fact that it has clearly defined what Rotterdam nowadays is. In this historical overview I will focus on the tale of Rotterdam's city centre, as this will ultimately will be the design location. Text below is mostly taken from the 'Historical atlas of Rotterdam' (van de Laar & van Jaarsveld, 2004) unless stated differently. The latest part, about high-rise, is taken from the theme page of www.rotterdam.nl on this topic.

Rotterdam's existence dates back to the 13th century. Around that time, people start to settle permanently right along the mouth of a small river called Rotte. This stream runs all the way from the interior peat areas of Holland to the Merwe - now called Nieuwe Maas. The settlement was soon called Rotta, after the stream. It was in the course of this same century that several dikes, sluices, dams were built resulting in an elongated front of dikes and a recovery of previously frequently flooded land between the dikes. Later on, in 1270, a sluice in the Rotte was built to prevent Rotta from flooding in times of high water or storms. This dam, located at the current crossing of the Hoogstraat and Binnenrotte, is what set of urban development in the elongated polder right behind this dam (see Figure 3.2).

It's also here, along the Hoogstraat, where the first houses are being built. Parallel along the Hoogstraat runs water called Steiger, where ships can moor for trading. Three more important waters (Delfsevaart, Slikvaart/Slijkvaart, Botersloot) parallel the Rotte. Later on, the city's area is expanded and a new water south of Steiger is dug, called Blaak and Nieuwehaven. They are part of a ring of canals surrounding the city, in the west called Coolvest and in the east called Goudsevest or Oostvest (figure 3.3 - 3.5). After the so-called Hood and Cod wars at the end of the 15th century the growth of the population stagnated and the economic viability decreased rapidly and so the city decides to relocate the water of Oostvest towards the current location of the Goudsesingel.

It is around 1550 that a division between a land city and a water city becomes apparent. The part of Rotterdam north of the Hoogstraat, where urban development started, is called land city; the part south of the Hoogstraat is called water city. It is here where, due to the flourishing of fishing on and trade of herring, other economic activities start to develop. All this is at the basis of a period of prosperity of the city in the third and fourth quarter of the 16th century as an international trade centre.



Figure 3.2: Rotterdam (1340). Note the urban development along the Rotte

It is also in this period (1575) that because of the revolt against Spain Rotterdam, located at a strategic position, is expanded and fortified. This has major consequences for the development of the water city, starting off with the development of new fortifications south of Blaak and Nieuwe Haven - now both protected inlands (figure 3.6 - 3.7). Although for military purpose, they set off an expansion towards the Nieuwe Maas by the end of the 16th century. Already in 1613, the latest additions of the water city are completed (figure 3.8).



Figure 3.3: **Rotterdam at the start of the 14th century**



Figure 3.4: **Rotterdam (1334). Note the new canals close to the centre**



Figure 3.5: **Rotterdam (1358). Note the ring of canals around the centre**



Figure 3.6: **Rotterdam (1575-1593). Note the newly built Blaak and Nieuwehaven**



Figure 3.7: **Rotterdam (1593-1595). Note the further urban expansion of Haringvliet**



Figure 3.8: **Rotterdam (1613). The completion of urban expansions.**

The excessive expansion at the transition from the 16th to the 17th century makes Rotterdam no longer the smallest of the four cities of Delft, Dordrecht, Gouda and Rotterdam, but the biggest. Even, by the end of the century, due to trading Rotterdam has become the second mercantile city of the Netherlands, after Amsterdam. At the start of the 18th century this results in a renewed expansion of the city - outside the former canals of Coolvest and Goudsesingel. Herring trade becomes less important, but shipbuilding activities become more and more. However, unfortunately Rotterdam isn't able to catch up with the industrial revolution that takes place elsewhere in Europe in the 18th century and the economic development lags behind the development of the previous century. In this century focus is on the beautification and gentility of Rotterdam, instead of city expansion, and it is for example in this period that the famous 18th merchant's houses are being built along the Nieuwe Maas.

It isn't up until around 1850 that the city continues to grow further towards the west, in the form of harbour expansions like Veerhaven. The centre of trading and shipbuilding thus slowly starts to move towards the west, up until the Park (1852-1857). It's the start of a slow displacement of the port out of Rotterdam's city centre. Furthermore, as living conditions in the city centre are bad, Rose's famous remediation project (Wester-, Noord- and Boezemsingel) is executed which not only led to an improvement of living conditions, but also of the water management and a beautification of the city (figure 3.9). Also, the basis of the traffic system is set up by Rose. Another important event taking place in this century is the introduction of the railway system in Rotterdam. The construction of a railway viaduct straight through the city centre to connect Rotterdam with the south results in a closing of the water of the Binnenrotte. Moreover, by 1872 the Nieuwe Waterweg is ready which - after a slow start - results in a further industrial expansion towards the west.

It isn't up until the second half of the 19th century that Rotterdam's city centre follows and starts to develop towards the west again. Slowly the city takes up the agricultural area between Rotterdam-West and Delfshaven. In this parts, the allotment pattern is taken as a base and this is still evident in some of these districts like Oude Westen. Soon after, the municipality start to interfere in the urban development of the city. The (infrastructural) integration of the city's parts appears not to be easy, due to the existing complicating traffic system, the network of waterways and typical allotment patterns of the new urban districts. Furthermore, the connection between both riverbanks complicates this and also did the introduction of the tram at the start of the 20th century.

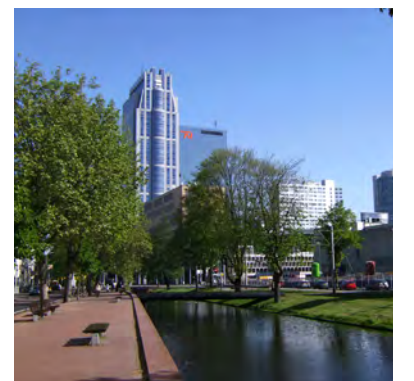


Figure 3.9: **Westersingel**

The infrastructural problems are solved around this same period, by turning the water of Coolvest and Goudsevest into representative city boulevards. Furthermore, two more 'highways' are created (Blaak, Meent) to connect the city centre horizontally. A separation between main routes for fast and slow traffic is introduced. Interestingly, the connection I will focus on later on in this MSc-thesis, is almost turned into another city boulevard which would have meant the closing of the Delftsevaart. After World War I Rotterdam does focus no longer on city expansion and breakthroughs, but on sound city-planning. An important role plays Land of Hoboken. Here, a civilized culture park is realized to magnify the grandeur of Rotterdam. It soon becomes an attractive location for the construction of distinctive, aesthetically designed (now monumental) white villas.

One of the most important events at that time, but also for the future of Rotterdam's city centre, is the bombardment of most of Rotterdam's city centre by the Germans at the start of World War II on May 14, 1940. In less than 10 minutes around 850 people got killed, 25.000 homes and another 11.000 other buildings destroyed. If not by the bombs themselves, than in the huge fire that breaks out after that lasted for two days. 258 hectares were lost - either during the bombardment or the fire. Soon, several waters in the city - Schiekade, Blaak and Schiedamse Vest - are filled up with debris as reconstruction starts quickly after. Also damaged historical buildings (although in some cases still recoverable) are being destroyed, while others like the city's town hall, post office and Schielandse huis remain intact. However, after the clearance of the debris an emptied city centre is left (figure 3.10) - prepared for the post-war reconstruction.



Figure 3.10: Rotterdam's emptied city centre

The first post-war reconstruction plan (1940) by Witteveen shows a modern city but still based on the conservation of the typical 17th century triangular shape of Rotterdam city centre. However, during World War II this plan meets a lot of criticism and, also due to sick-leave, his former assistant van Traa takes over. His plan (1944) is inspired by modernist ideas and focus is to help Rotterdam become a functional and flexible city. His plan is characterized by a separation of living, working, recreation; a separation of traffic types and a clustering of facilities and services (www.rotterdam.nl - wederopbouw). Also the former infrastructural problems are solved (again) and several main roads crossing north-south or west-east form the new traffic axes of Rotterdam's city centre. Coolsingel becomes the central axis in this plan. Furthermore, room was left for future development. This second post-war reconstruction plan is at the heart of contemporary, modern Rotterdam (figure 3.11).



Figure 3.11: Post-war reconstruction plan by van Traa (1944)

Furthermore, the typical architecture of this time is characterized by its functional and modern appearance. Albeit their business-like image, they were often combined with decorative elements. A famous example is the Bijenkorf building. Besides, it is in this period that several business centres are being built, like the Groothandelsgebouw. Probably the most famous example of this post-war reconstruction period is the Lijnbaan (figure 3.12): a car-free shopping street where housing is realised in tall residential buildings behind the shops around typical inner courts. The shops are supplied via the even typical expedition streets (<http://www.rotterdam.nl> - ontstaan en ontwikkeling). Also typical of the architecture of this period are the newly built residential areas, mostly in Laurenskwartier - characterised by their spaciousness, community gardens and shared district facilities (www.rotterdam.nl - wederopbouw).

In the seventies, after the post-war reconstruction period between 1940-1965, the city centre of Rotterdam is experienced as cold and business-like. The city needs to be more cosy. Focus is on more and playful, small scale housing; the construction of terraces and pavilions; the realization of more greenery and a freeze of office buildings (<http://www.rotterdam.nl> - ontstaan en ontwikkeling). From the eighties onwards, also a cultural impulse takes place with for example the Maritime Museum, the Museumpark with the Kunsthal, Natuurmuseum and the NAI (idem). Other important events taking place are the construction of the railway tunnel below the Binnenrotte, the revitalization of the Land of Hoboken and the redevelopment of the Water City into a living, cultural and recreational area.



Figure 3.12: The start of the Lijnbaan (1963)



Figure 3.13: **Kop van Zuid - under construction**



Figure 3.14: **The green mirrored glass WTC-tower**

Due to the slow movement of the harbour out of Rotterdam's city centre towards the west and also due to development of Botlek, Europoort and Maasvlakte between 1945 and the end of the sixties, many original harbours - also the harbours of the water city - lost their function. In the early eighties the municipality starts redevelopment of these old harbours with retention of the form and structure of these harbours. In this way, it is tried to re-establish the relation between city and river as well as the connection with the port of Rotterdam. Also part of this is the redevelopment of Kop van Zuid, former Wilheminaakade, now being part of the city centre. The Erasmusbrug (Erasmus Bridge) which connects this area with the rest of Rotterdam's city centre, since its opening has worked as a catalyst for companies to settle at Kop van Zuid. With its many skyscrapers it now dominates Rotterdam's skyline (figure 3.13).

With this, the most recent important period for Rotterdam's city centre has begun - a period of high-rise. Most of the input for the following text is taken from the section high-rise on www.rotterdam.nl, unless stated differently. Interestingly, although in no way of importance for this period to develop, is the fact that the first skyscraper of Europe (the White House, 42m) has been built in Rotterdam - already in 1897! Also already before World War II, in the thirties, some high-rise residential buildings were realized by architects inspired by a style called Nieuwe Bouwen. However, these buildings don't even reach up to a 50 meters and thus are nowadays no longer part of Rotterdam's skyline. Hereafter, in the sixties, a first wave of high-rise buildings starts. In just a few years Bouwcentrum, Coolse Poort and the second Shell-building (95m) are realized. However, as the municipality isn't pleased with this latest addition, a building stop is proclaimed and small scale becomes the new focus.

At the start of the eighties, oddly enough the same alderman that at first strongly opposed against high-rise buildings in the centre of Rotterdam, is at the heart of the second and more powerful wave of high-rise - stimulated by the establishment of the high-rise foundation (1982) and Rem Koolhaas' praise of high-rise in delirious New York. The 93-meter high green mirrored glass WTC-tower on top of the exchange building becomes the symbol for this new Rotterdam élan (figure 3.14). From 1986 onwards a large amount of high-rise office buildings are realized along Weena, Coolensingel and Boompjes. Also, residential high rise becomes more accepted, mainly due to the famous 'punch card' (106m) and later on Weenacenter (100m), Schielandtoren (106m) and Hoge Heren (95m). From 1998, high-rise is concentrated in a zone that runs from Central station to Kop van Zuid.

Although internationally Rotterdam's skyscrapers are relatively small ones - the tallest buildings worldwide being 828 meters (Burj Khalifa, UAE) - they become taller ever since the early thirties of the 20th century. For long the record of tallest building was held by the iconic office buildings of the Nationale Nederlanden (151m) along Weena. These were built between 1986-1991 and only in 2005 this record was taken over by Montevideo (153m) at the Wilhelminapier. Currently, the tallest building is the Maastoren with its 165 meters height (figure 3.15). Also this tower is at the Kop van Zuid, where also the second tallest building (New Orleans, 158m) is located and the future first (Baltimore, 173m) is realised. The tallest building probably to be realised in the future is already over 200 meter: Schiekadeblok (212m). Rotterdam also holds the record for the top-3 tallest buildings in the Netherlands. Still however, Rotterdam's tallest buildings is not even in the top-200 tallest buildings worldwide and Rotterdam is ranked a 77th position in the Skyscraper Cities Ranking List.

To come to a conclusion, it is clear that Rotterdam is in many ways different from other cities. In the first place, no other city in the Netherlands is as strongly interconnected with its port as is the case in Rotterdam. Many of the physical layout of Rotterdam's city centre is linked to former harbour activities in the city. The most striking example being the development of the water city. In the second place, a major event which drastically has changed the layout of Rotterdam's city centre is of course the bombardment during World War II. It vanished the historical identity and during the post-war reconstruction period (1940-1965) Rotterdam was turned into a modern city. In the third and last place, also the focus on high-rise contributed to this new image and resulted in being Netherlands only high-rise city. Not surprisingly, these three periods have shaped the identity of Rotterdam as one will read in the next subchapter.

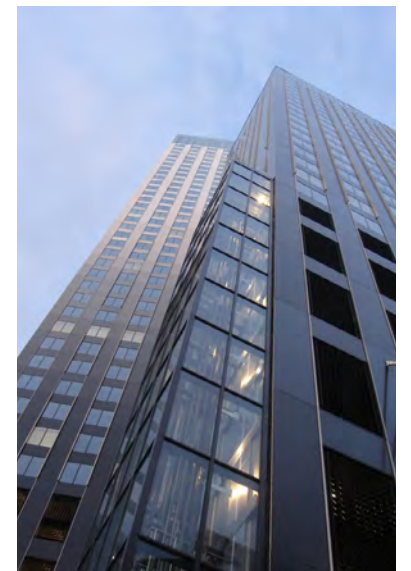


Figure 3.15: **Maastoren, currently Rotterdam's tallest building**

3.3 Identity of Rotterdam

Now one has a basis idea of how Rotterdam('s city centre) evolved over time, one can easily distinguish between three important periods during its development as is also concluded in the previous chapter. Once more, these are the period of the development of Rotterdam as a port city, the post-war reconstruction period after the bombing during World War II and an era of high-rise from the eighties onwards. While the latest two periods only took place after 1945, the first period is on-going since Rotterdam's genesis in the 13th century. Since then, over the centuries, Rotterdam has slowly developed from a relatively small and trivial city along the Rotte to the international port it is now. However, one has also read about the slow shift of the port westwards along the Nieuwe Maas - thus out of Rotterdam's city centre. The consequences of this displacement for the identity of Rotterdam's city centre are high, as will be shown in this and next chapter.

The two more recently periods to be distinguished show some similarities, as both periods are much more controlled and planned top-down than the organic growth of the city as a port, evolved in just decades instead of centuries and from the start (also) aimed at an improvement of the image of Rotterdam in general. However there are also differences, as for example the period of post-war reconstruction period is inextricably linked to the sudden bombing during World War II. It is this unique incident and its direct result, the disappearance of complete city centre, that has contributed to Rotterdam's identity in both positive and negative ways. In the later era, a period of high-rise, such a particular event has not been the cause of the period of high-rise in the early eighties. Though, again, its result - a prominent skyline - is still unique within the context of the Netherlands and therefore also this period has had both positive and negative consequences for the identity of the city centre of Rotterdam.

Interestingly, it's both these latest periods that have severely defined contemporary Rotterdam. With both a focus on architecture, Rotterdam is now the city of architecture in the Netherlands. Besides, together with the buildings of the post-war reconstruction, both periods have also turn the city's centre into the business city of the Netherlands. And with a complete new city centre being built since 1945 and with more architectural pearls to be built in the future, it's also a very dynamic city. Furthermore, since its explicit wish to be a modern city after the bombing in World War II it has been ever since and still associated drive to be experimental and innovative can be felt in downtown Rotterdam. Together this has resulted in Rotterdam now can be seen as our international capital, unlike all other bigger cities in the Netherlands.

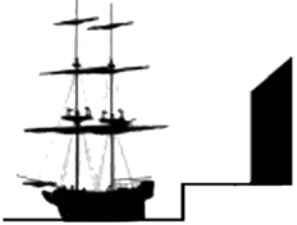


Figure 3.16: The three identities of Rotterdam

These periods have, as one can expect, seriously affected the identity of Rotterdam. The interaction between these three different periods have resulted in Rotterdam's city centre now having multiple layers which together make Rotterdam a contrasting, surprising and diverse city (figure 3.16). It is my personal conviction that just one of these three periods wouldn't have been enough to come up with such a strong identity the city of Rotterdam currently has. However, I also do believe that something seem to be just not right with Rotterdam's identity as so many people don't think of Rotterdam in a very positive way. To figure out what exactly seems to be at the basis of this unpopularity I will now point out in the upcoming subchapter which will describe how these three identities relate to one another. Ultimately, the conclusions will be presented in the upcoming subchapter called 'out of balance'.



Figure 3.17: A wordcloud of Rotterdam's identity



01

Port of Rotterdam

Since its existence, Rotterdam is known as a port. It is the strategic position of the city along the Maas and the Rotte, serving both the city and the hinterland. Throughout history it is precisely this what did result in an excessive growth of Rotterdam over the centuries. No wonder Rotterdam soon becomes an international trading centre. It may thus not also come as a surprise that, ever since its beginning, decisions involving urban expansion and alike almost always were made in favour of the port to improve trading. This can be illustrated easily by just pointing out the division of the city's centre into a so-called land and water city, but also some of the very first canals are still present nowadays. So basically, in general, waters (canals, harbours etc.) has played a very important in the physical lay-out of Rotterdam's city centre.

However, from 1850 onwards the port slowly starts to move westwards and thus out of the city centre. This being a necessity due to larger vessels, the introduction of warehouses and, later on, container shipment and made possible by an expansion of the municipality of Rotterdam, the Nieuwe Waterweg and an extensive railway system (Palmboom, 1987). Where in the past the city's centre and the port were working together, trading taking place on the quay, already by the second half of the 20th century the last port activities were relocated outside of downtown Rotterdam. The port and the city centre become separate parts, lying next to each other.

But also the bombing during World War II significantly contributed to this slow displacement, as right after some canals were filled up with the debris left. Previously, in 1877, the Binnenrotte already was lost due to the railway connection with Antwerp and further south (figure 3.18). Coming back to this bombing during World War II, according to Gehl, it is 'in the chase for a new identity in which a number of important pre-war features has been downgraded. The city's canals and the contact with the river is amongst the casualties' (2007: 6). So while the port slowly moved towards the sea, the remnants of the former harbours in the city's centre were also lost.



Figure 3.18: **The railway connection replacing the Binnenrotte**

Although port and city centre are now no longer operating as a whole, the port of Rotterdam left its mark on the city centre. Most prominent, the port can be experienced in the Leuvehaven, where on the quay still several former harbour elements remain (figure 3.19). These elements are not only part of Rotterdam's industrial heritage, but also unique and identifiable and contribute significantly to the distinctive character of this area. Or, referring to Lynch (1961), this area is more like a district: an area where one mentally enters 'inside off' and recognizable as being different from other places. A true 'genius loci' has developed over time and it becomes one of those memorable, vivid parts of the city where people can attach meaning too (Lynch, 1981). From a more social perspective, this area has played an important role in the history of Rotterdam too and so lots of memories and narratives are bound to this place. For those who know about these, the Leuvehaven has an even more important meaning and they probably feel even more attached to this place than others. This helps to create a feeling of belonging to this place and makes people feel proud of their city. Also Veerhaven (figure 3.20) and Oudehaven are distinct places where the feeling of the port can still be felt.

However, there are many places in Rotterdam city centre where unfortunately the water is neglected. To which specific problems this have led I will come to later, for now it is important to know that over the years the water in Rotterdam has been lost, neglected and forgotten. It seems that only at some places attention has been paid to re-connect the port with Rotterdam city's centre. At Oudehaven for example one can enjoy a view of the old harbour while drinking a glass of wine or having lunch at one of the many outdoor serving areas. Unfortunately, this seem to be an exception and still the water is neglected in many places. The location where this can best be seen is the Delfsevaart. While it once was part of Rotterdam's artery, for ages its water has been neglected now. Even, plans were made to make this another main road (van de Laar & van Jaarsveld, 2004). Hardly any activities are taken place on or along the water, the water can't be reached and is itself polluted. It wasn't until recently the municipality started to realized this major potential and now tries to celebrate the water instead of neglect it.

In conclusion, technological development, city expansion and the bombing during World War II have - over time - resulted in a displacement of the port away from the city's centre and towards the west. The historical combination of Rotterdam's city centre and the port no longer exist and now only remnants are left spread out over the city. While some of these are restored in a proper way, still today many of the waterways are neglected resulting in many problems.

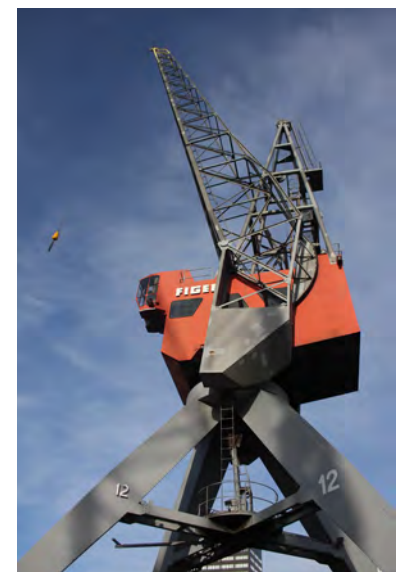


Figure 3.19: **A crane at the dockside of Leuvehaven**



02

Post-war reconstruction

The second identity of Rotterdam I have distinguished is related to the bombing of the Germans during World War II on May 14, 1940 or better, the 25 years of construction after (1940-1965). As one could read, the city centre was soon almost completely emptied in preparation for the post-war reconstruction. The total vanishing of what used to be the old city harmed many pre-war citizens of the city - they no longer recognized themselves in this non-place and felt unease. They missed the strolling for fun, the human crowds, the liveliness and the intimate experience of Rotterdam's old city centre (Wentholt, 1986; figure 3.20). The memories, meanings and narratives were still there, but they instantly became groundless. Having said this, it is reminiscent of the fourth principle of continuity in the process of information selection in identity (Twigger-Ross and Uzzell, 1996). Being more specifically: place-referent continuity in which the physical environment is conceptualized as a reference for the past action and experience and the landscape is used as a memorial to the person's past. They conclude that unwanted disruptions (the bombing) to emotionally salient places can threaten the self.



Figure 3.20: **Pre-war Rotterdam - Coolveste (1895)**

With the old identity being now almost completely lost, the new identity was based on the Nieuwe Zakelijkheid ('functional modernism'. Within this architecture-based style, the liberation of historical references in the design process was one of the greatest aspirations. This is very much in line with the time spirit then, in which modernity and progressiveness were associated with business functionality, un-sentimentality, no nonsense, straightforwardness, regularity and being anti-traditional. Everything what seems to be superfluous from a business point of view could better be deleted and so decorations were of no need (if without a business function) as well as soft lines, greenery and natural forms. They were clearly not associated with a business city. Furthermore, only industrial materials should be used (conform the era) and all that was old to be demolished as it either obstructed the new or did no longer meet the contemporary requirements (Wentholt, 1968).

However, ever since its finishing in the sixties people started to complain. A questionnaire amongst 100 citizens of Rotterdam's city centre (Wentholt, 1968) about what they thought of its (new) centre showed 42% having a negative opinion. Reasons included a lack of conviviality and intimacy; the impersonal, cold, rigid and functional appearance; the ugliness, heaviness and solidity of the buildings (figure 3.21) and the empty and dead spaces. Amongst other reasons mentioned in Wentholt, the scaling up of Rotterdam's city centre has resulted in a surplus of space, too little variation in scale, the predominance of bulky volumes and a too great monotony in the urban image. This all at the expense of privacy, warmth and intimacy.

Although outdated, the survey of Wentholt (1986) of the perception and experience of Rotterdam's city centre (of which the aforementioned survey was part) is still very interesting as many of it is still valid in today's context. That he was not alone in his stance against some aspects of Rotterdam's city centre becomes clear when he refers to an article in The Time of October 28th 1976 where the mistake made in Rotterdam is defined as the lack of a proper distribution of space, the same preference for large housing blocks and the neglect of unity and proportions. It is concluded that downtown Rotterdam does not meet the requirements of a city's centre which are stressed over and over again throughout his book: urbanity, lifelines, intimacy and visual attractiveness.

In my opinion, what is missing is the human scale. This is also in line with Wentholt, stating that 'in so far the efforts to preserve the human scale has formed the basis, one has failed completely' (1986: 96). Also, if it comes down to the topic of urban identity, for several years focus was only on the physical aspect instead of the evenly importance of the social aspects. It is clear that the collectively built identity (Raja, 2003) of Rotterdam's city centre is just not enough to come up with a strong identity. As one has read in the previous subchapter on Rotterdam's history, soon after - from the seventies onwards - things start to change and focus is on more on the social aspects of urban identity like uses and activities. It's only when the needs of the user meet the space that through the continued use of space people can built attachment to it (Dougherty, 2006).

Thus however unique the design of modern Rotterdam may be, still a city's centre needs more than this as agreed upon by many scholars discussed before. In conclusion, the period of post-war reconstruction has ever since its beginning paid hardly any attention to the people living there, driving by a wish to become a modern city. In this process, unknowingly, this unilateral view on urban identity has contributed to why so many people seem to elude Rotterdam's city centre today.



Figure 3.21: **An example of post-war reconstruction architecture**



03

Skyscraper city

The third identity is the newest identity, starting to develop only in the early eighties. However, in not even three decades this can now be seen as one of the strongest identities of Rotterdam's city centre. Even it has resulted in a new profiling of Rotterdam with an associated slogan: Manhattan on the Maas. This can best be experienced at the Wilhelminapier, part of Kop van Zuid, where several skyscrapers right along the Maas dominate Rotterdam's skyline. Although this is a pretty new identity, it is this skyline identity that makes Rotterdam so different from other cities like Amsterdam, The Hague or Utrecht. This focus on high-rise is what makes Rotterdam unique and adds up to its distinctive character. This is in particular true in a Dutch context, as there are no other cities in the Netherlands with a skyline like Rotterdam.

The skyscrapers in Rotterdam's city centre contribute in a significant way to the identity of Rotterdam as many of them are distinctive amongst others each having their own unique and identifiable characteristics, for example the colour as is the case in the Red Apple (figure 3.22). However, they have another function as they significantly contribute to the legibility of the city: 'the ease with which its individual parts can be recognized and can be organized into a coherent pattern' (Lynch, 1961: 3). Fortunately, Rotterdam seems to be aware of this strength as in the policy document on high-rise it is stated '(the) power of architecture is to be reinforced by giving more attention on the cohesion in the urban tissue' (Brouwers & Maandag, 2010). An example of this policy can be found in Waterstad where skyscrapers have to be more slender the higher they are (www.rotterdam.nl - hoogbouw). By doing so, this district becomes recognizable from others.

Furthermore, also within the context of Lynch, the skyscrapers will ultimately contribute to what he calls imageability, where - in short - identity and structure result in a high probability of evoking a strong image. Five environmental elements leading up to this have already been discussed in the chapter on urban identity, but in this respect landmarks are worth discussing.

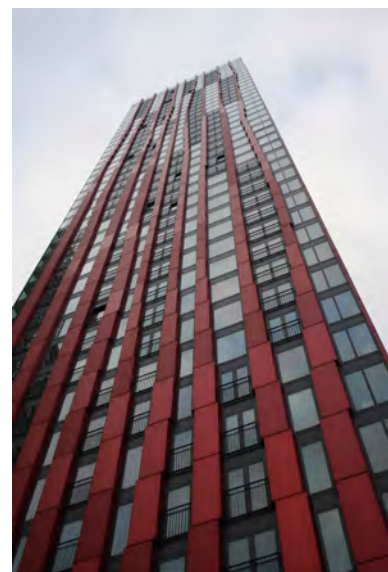


Figure 3.22: **The Red Apple**

Both Lynch and Jacobs (1961) make a distinction between radial / distant landmarks - seen from many angles and distances because of their size - and local / intimate landmarks - only visible in restricted areas and from certain approaches (contrast in use and different from its surroundings). Obviously, skyscrapers are amongst the most effective radial / distant landmarks and so significantly contribute to the image and identity of - here - Rotterdam's city centre. Because most of the historical buildings are so different from today's architecture surrounding it, they are an example of local landmarks.

Apart from them being attractive in their physical appearance, the real gain can be achieved on the street-level. By not just putting them down as loners in the urban tissue, but properly paying attention to the street-life at the base of these skyscrapers, I believe also the social aspect can be addressed. So, with new skyscrapers being built ever since, it is important to think of a proper function of the building on the street-level. Uses and activities have to fit within the context of the district (figure 3.23). Also in the policy document on high-rise in Rotterdam (Brouwers & Maandag, 2010) this is recognized and special attention is paid to the topics of expressiveness emphasizing that it is no more about buildings just being ugly or beautiful, but about the meaning and functioning of the buildings. It is the expressive totality of these buildings together that give a street, neighbourhood or district its identity. Together they relate to the identity of the city.

Already shortly referred to in the introduction of this chapter, Rotterdam has always been associated with being innovative and experimental - ever since it's wish to become a contemporary and modern city. The focus on architecture in both periods of post-war reconstruction and high-rise have contributed significantly to this and, interestingly, architecture thus not only helped to come up with a strong identity on a physical level but also on a more psychological level. It has been 'the quick changes and unprecedented questions and wilful answers to them that has resulted in Rotterdam's specific architectural climate, a 'own' sentiment, a touch of diversity, modernity and international focus' (Brouwers & Maandag, 2010).

To conclude with, since the destruction of the historical city centre after the bombing in World War II, focus has been on architecture almost ever since. All these buildings have substantially contributed to Rotterdam's identity as many of them are individually recognizable, in particular the skyscrapers over the last years. However, with this new identity on top of the newly established identity as a modern city, nothing has changed with respect to the lack of the social aspect regarding urban identity as I will also show in the next subchapter.



Figure 3.23: **Lunchroom Aert van Nesstraat**

3.4 Out of balance

As easily can be concluded from the previous chapters, the three identities one can distinguish in Rotterdam's city centre are not well balanced. From World War II onwards, the two latest identities have slowly eliminated the original identity of Rotterdam, that of being a port. Due to the focus on architecture in those two most recent identities, buildings have mostly contributed to Rotterdam's identity in the last half a century. Thinking of Rotterdam, most come up with famous buildings like Delfse Poort (Nationale Nederlanden), Manhattan or Montevideo. Probably even more famous, but not buildings, are the Erasmusbrug and the Euromast. Buildings significantly add up to what Rotterdam is for most people and still new architectural are being built today. But apart from Schouwburgplein, the Park (figure 3.24) and maybe Museumplein, this appears not to be true for public spaces in Rotterdam. There do not seem to be any more examples of famous public spaces in the city centre, unlike for example a city like Amsterdam. Famous squares and parks in the city centre here include, amongst others, Rembrandtplein, Leidseplein, Museumplein, The Dam and Vondelpark.

This being not the case in Rotterdam, I believe, is a direct result of the dominance of both the period of post-war reconstruction (1940-1965) and high-rise (after 1982). Due to these two identities for long attention has been paid to the architectural skyline and now most of Rotterdam's identity is confined in these mostly huge and tall over-sized buildings. As a result, the identity of Rotterdam's city centre is - one can say - hovering dozens of meters above the street-level. This is a problem, as it's here where the people are and actual public life takes place. Ever since the post-war reconstruction the people have been forgotten in Rotterdam and as a result, due to this focus on buildings, public space has been forgotten, neglected and ignored (figure 3.25).

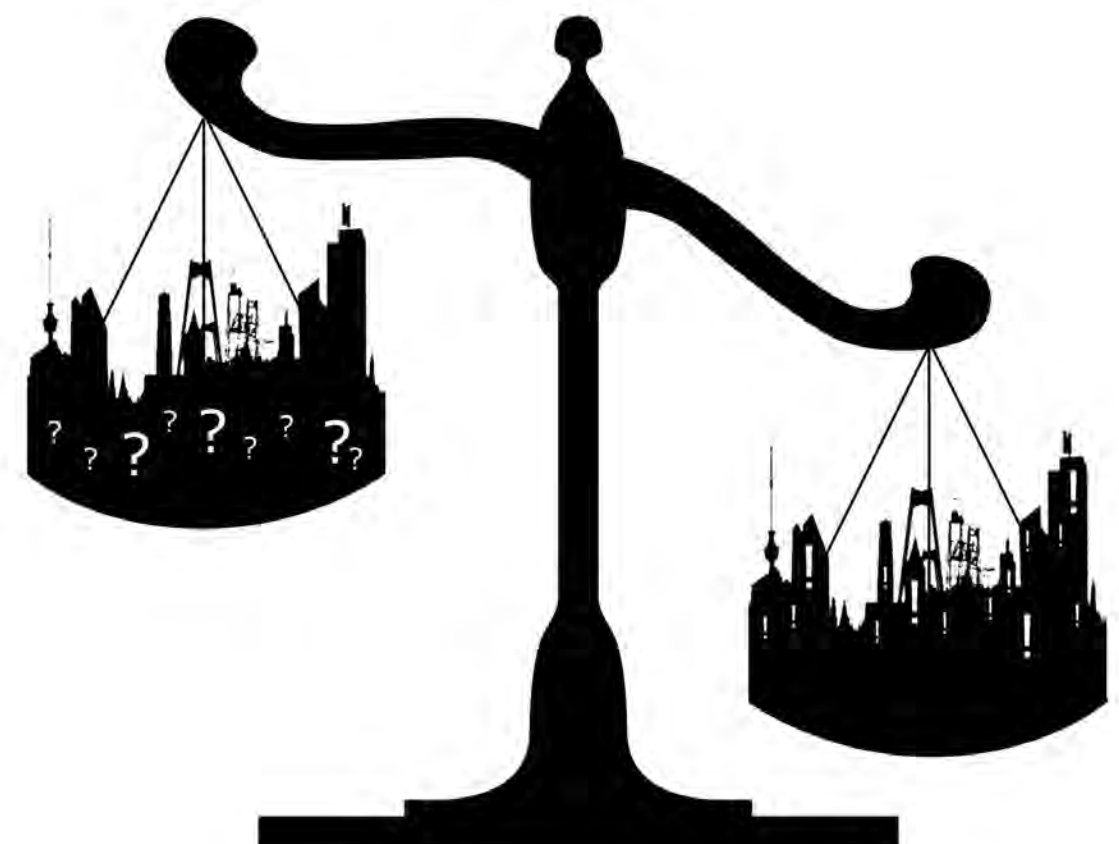
In my opinion, this is a missed opportunity as the uniqueness and recognisability of a city, i.e. its identity, is largely determined by the design, the use and management of all the public spaces. Next to the actual design, public spaces offer the opportunity to express an own, individual identity (van Aalst & Ennen, 2002). And as 'citizens define the city and its identity (...) also with the social elements' (Baris et al., 2009: 732) and people 'need to feel a sense of belonging to it, (...) the environment should be such that it encourages people to express themselves and become involved', the need to address this neglect becomes even more urgent. Currently, public spaces in Rotterdam's city centre now fall short in both the physical aspect and the social aspect and thus most are non-places where there are - still - no people.



Figure 3.24: 'The Park', bordering Rotterdam's city centre

In conclusion, regarding the distinguished identities, what's happening in the city centre is precisely this: the two most recent identities overshadow the oldest identity. So, this dominance of the post-war reconstruction period and later on of high-rise has - in just over 50 years - effectively suppressed the identity of the port. Rotterdam is still a port, but no longer this can be felt in downtown Rotterdam. Over time this has resulted in specific problems to which I will come later on in this chapter, although there is some overlap in what's already being discussed. Most importantly and not in the least place, also taking into account the topic of this MSc-thesis, the identity of Rotterdam's city centre is now only visible from a distance or when you look up. Right below, at eye-level, public spaces clearly look boring, stony, chaotic and badly managed as shown on the next page (figure 3.26).

Figure 3.25 : Rotterdam 's 'out of balance'-situation





Λ

Example 1: **Erasmus Bridge**
Willemsplein

∇



Λ

Example 2: **Lijnbaanhoven**
Joost-Evertsenplaats

∇



Λ

Example 3: **Calypso**
Diergaardeplein

∇



Λ

Example 4: **Binnenwegplein**
Karel Doormanhof

∇



Figure 3.26: 'Out of balance' examples in Rotterdam's city centre

3.5 Problems

Like every other city in the Netherlands, Rotterdam has some problems to be dealt with. However, as one will see these seem to be very different from for example Amsterdam, The Hague or Utrecht. These problems can be related to the very different history of Rotterdam, in which the focus was on architecture - but also on infrastructure - and in which a wish to be a modern city always prevailed.



Figure 3.27: **Unattractive routes**



Figure 3.28: **Lacking a human dimension**



Figure 3.29: **A cold and cheerless city**

Unattractive routes

The first problem out of six I have distinguished for Rotterdam is that routes between the scattered foci in the city's centre are unattractive. They are not inviting to walk along, as there seems to be hardly any interaction between the street and the ground floor frontages of the building (figure 3.27). Mostly they are passive/closed, monotonous and over-sized instead of being active and diverse (Gehl *et al.*, 2007). Furthermore, some routes are right along one of the many main roads through this car-dominant city centre.

Lacking a human dimension

The second problem for Rotterdam's city centre is that many of what is there is oversized (figure 3.28). This is also acknowledged by Gehl *et al.* stating 'the city is characterised by large scale units, large scale infrastructure and a general lack of coherence between the various areas that compose the city' (2007: 147). These urban elements all tend to ignore the human scale resulting in anonymity, incomprehensibility and artificiality (Elgin & Mitchell, 1977). Together, this will add up to the unwelcome feeling people have visiting Rotterdam.

A cold and cheerless city

The third problem here is that the city's centre feels cold and cheerless. This cold feeling can not only be understood literally due to fast downwind, turbulence and shadows created by high-rise effectively lowering temperature (Gehl *et al.*, 2007), but also figuratively due to many grey, dull and squared building blocks. I believe it's precisely this that gives many visitors of downtown Rotterdam it's unwelcome feeling. Add up to this, the lack of public life outside shopping hours and one gets a lifeless and deserted city centre (figure 3.29).

Weak historical links

The fourth problem are the weak historical links, referring here to both the bombed part of the centre and the older parts bordering this area as well as between the remnants of the glorious past and modern Rotterdam. In the first case it's about how to properly intermingle old and new Rotterdam (figure 3.30), in the second case it's about the discussed identities. In some cases the juxtaposition of the main items of these two tales of Rotterdam's city centre is all what's needed, but in others some control is needed but unfortunately is not carried out.

Anonymous spaces

The fifth problem are the many anonymous public spaces all over Rotterdam's city centre Rotterdam is blessed with lots of public spaces, but unfortunately many of them are either being undefined or undifferentiated. Furthermore they clearly lack a distinct profile and mostly suffer low quality (figure 3.31). As a result they are unwelcoming, unused and anonymous spaces (Gehl *et al.*, 2007). Public space lacks quality in its functioning as a place to meet. It needs no explanation public space in Rotterdam's city centre is badly valued (municipality Rotterdam, 2007).

Neglected waterways

The sixth problem is a result of the ignorance of Rotterdam's forgotten identity, leading up to a neglect of the Maas, harbours and Rotte. Not only were some of them filled up with debris right after the bombing - nowadays they are still hidden/invisible, inaccessible due to parking, polluted (figure 3.32) or full of algae and it's clear they seem to be of no use at all. Also building's backs now face the water, stressing the indifference towards the water. Furthermore, many ambiguous spaces can be identified along the water.

The six problems here are all interrelated to one another, but most importantly are all the result of the dominance of the two latest identities of Rotterdam: post-war reconstruction and skyscraper city. Interestingly, also all six but one of the major problems defined by Gehl *et al.* (2007) are either a direct result of the post-war reconstruction period (for example a segregated traffic environment) or high-rise (for example problems with scale and climate) or both. This affirms my assumption these two are both strength and weakness.



Figure 3.30: **Weak historical links**



Figure 3.31: **Anonymous spaces**



Figure 3.32: **Neglected waterways**

3.6 Solutions

Now I have discussed six of the major problems in Rotterdam's city centre, I will now turn my attention to what I believe Rotterdam should do to solve these problems. Not surprisingly, the proposed solutions here are the direct opposites of the problems. It will not be a surprise, after what's said before, that in many cases what's needed is taking into account the people (note people are depicted here!).



Figure 3.33: **Attractive ground floor frontages**



Figure 3.34: **Small-scale projects**



Figure 3.35: **The 'City Lounge'-feeling**

Attractive ground floor frontages

To counter the now many blank facades in Rotterdam city centre, new buildings should include significant ground floor frontages. They should be active/open, heterogeneous and proportionally right (figure 3.33). This is also acknowledged in Rotterdam's current policy on high-rise, stating that 'street-life goes above skyline' (Brouwers & Maandag, 2012). By doing so, street life gets new impulses and unattractive routes will become more liveable. They will be obvious routes, connecting the now too many individual spots in the urban tissue.

Small-scale projects

Instead of focusing on mostly large-scale buildings Rotterdam should pay more attention to the human scale by initializing small-scale projects. These can be either temporary (figure 3.34) or permanently interventions in the public space. It's only in this way the city of Rotterdam can properly address the issues of privacy, intimacy and hospitality (after Wentholt, 1968). Also Gehl *et al.* (2007) points out that all human being have a universal preference for diverse, visually stimulating and human-scaled environments. Importance is thus high.

The 'City Lounge'-feeling

Rotterdam's city centre lack conviviality, recognized by its citizens as its main annoyance after pollution (pers. comm. Marijnissen, 2012). This dating back to the seventies, Rotterdam now wants to turn the city centre into a city lounge (Bureau Binnenstad, 2012) - a metaphor for the atmosphere the city is aiming at, which is hospitable, 'warm', personal and cosy (figure 3.35). A city centre with character and a place where there is always something to do. In this way, the city centre can become the bustling city it needs to be.

Embracing past and present

To restore the weak historical links in the city's centre, Rotterdam should embrace past and present by seeking for creative, innovative and surprising solutions to combine for example an historical building with a modern restaurant (figure 3.36). Also Gehl *et al.* stress the need to celebrate history and 'expose and make use of historic elements as e.g. the canals, harbours, Laurenskerk and Coolsingel' (2007: 24) According to this report, this can also be done by visualise history in paving, artwork etc.



Figure 3.36: **Embracing past and present**

Recognizable places

To tackle the latest problem, involving also previous issues, Rotterdam should turn anonymous spaces into recognizable, welcoming and attractive places. Specific design (e.g. lightning; figure 3.37) can significantly contribute to this, so public spaces are no longer undefined and undifferentiated but multifunctional. Furthermore, the quality of the public space in Rotterdam needs to be improved. By doing so, public space interventions can contribute to the character of the city as a whole, enhancing its modernity (municipality Rotterdam & OKRA landschapsarchitecten bv, 2009).

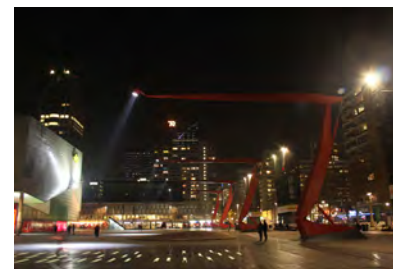


Figure 3.37: **Recognizable places**

Celebrated waterways

To solve the issues around the multi-layered problem of the neglected waterways, solutions are divergent. In general, the canals and harbours need be upgraded and the connection with its city's centre need to be restored (Gehl *et al.*, 2007). They have be made visible, cleaned and accessible. Furthermore, as they have lost their original function, they need to have a certain recreational function. These issues are only recently addressed by the municipality and now this unique and valuable element slowly gets the attention it deserves.



Figure 3.38: **Celebrated waterways**

Here, once again, these solutions are very much interrelated and focusing on one might also solve other urgent problems. The most potential to do so has to be to regenerate what's left of the waterways - being one of the few remnants of Rotterdam's forgotten port identity. Now these waterways are completely neglected and as one has read only are associated with many problems, for example pollution. I will further elaborate on this line of thought in the concluding chapter by relating identities, problems and solutions.

3.7 Conclusion

Already pointed out throughout this chapter several times, the identities of Rotterdam's city centre are out of balance. To be more specific: the two latest identities, post-war reconstruction (1940-1965) and skyscraper city (>1982), are overpresented and have, in the past, slowly evaded the oldest identity: port of Rotterdam (figure 3.40). Besides, also other reasons discussed in the historical part of this chapter, have had their role in this slow displacement out of the city's centre towards the west. Now the port of Rotterdam is no longer associated with Rotterdam's city centre as they are no longer one, but operating as separate parts. Although this is not a problem in itself, with this also the liveliness taking place at the quay - where city-life and harbour activities meet (figure 3.39) - slowly faded. Although remnants of Rotterdam's glorious past remained, they are now only fragments in the city's centre where hardly any attention has been paid to over the years as the two recent identities dominated the city ever since 1940.

Both the periods of post-war reconstruction and high-rise are up to today clearly manifested in the city's centre and contribute in a significant way to why Rotterdam is experienced as a modern and contemporary city. This is also what makes Rotterdam so different from other cities in the Netherlands, furthermore as no other Dutch city has such a remarkable skyline (although in an international context it's less unique) and almost no historical buildings in the city's center as a result of the bombing during World War II and subsequent 'spring cleaning'. It is their interaction that have blessed Rotterdam's city centre with a strong identity, as neither the post-war reconstruction identity or skyscraper city alone would have been enough to come up with such a strong image. However, still, it isn't just enough to be as popular as the historically grown identities of cities like Amsterdam or Utrecht.

So, despite of its distinctive profile, something is 'wrong' with its identity. Throughout this chapter several problems are mentioned which directly relate to these most recent identities. Interestingly, as they also define Rotterdam. In general, I believe what's wrong is that both only have addressed the physical aspect of urban identity and forgot about the social aspect (i.e. people). Focus has been to much on architecture, infrastructure and alike but not so much on public spaces. Precisely this has resulted in the experience of its city centre as cold, unattractive, cheerless, out-of-scale and so on. Nowadays, the identity of Rotterdam's city centre is 'captured' in buildings, somewhere sky-high where there are no people at all. As hardly any attention is paid to its public spaces, where there are people, there is no room left for involvement of the people in the city.

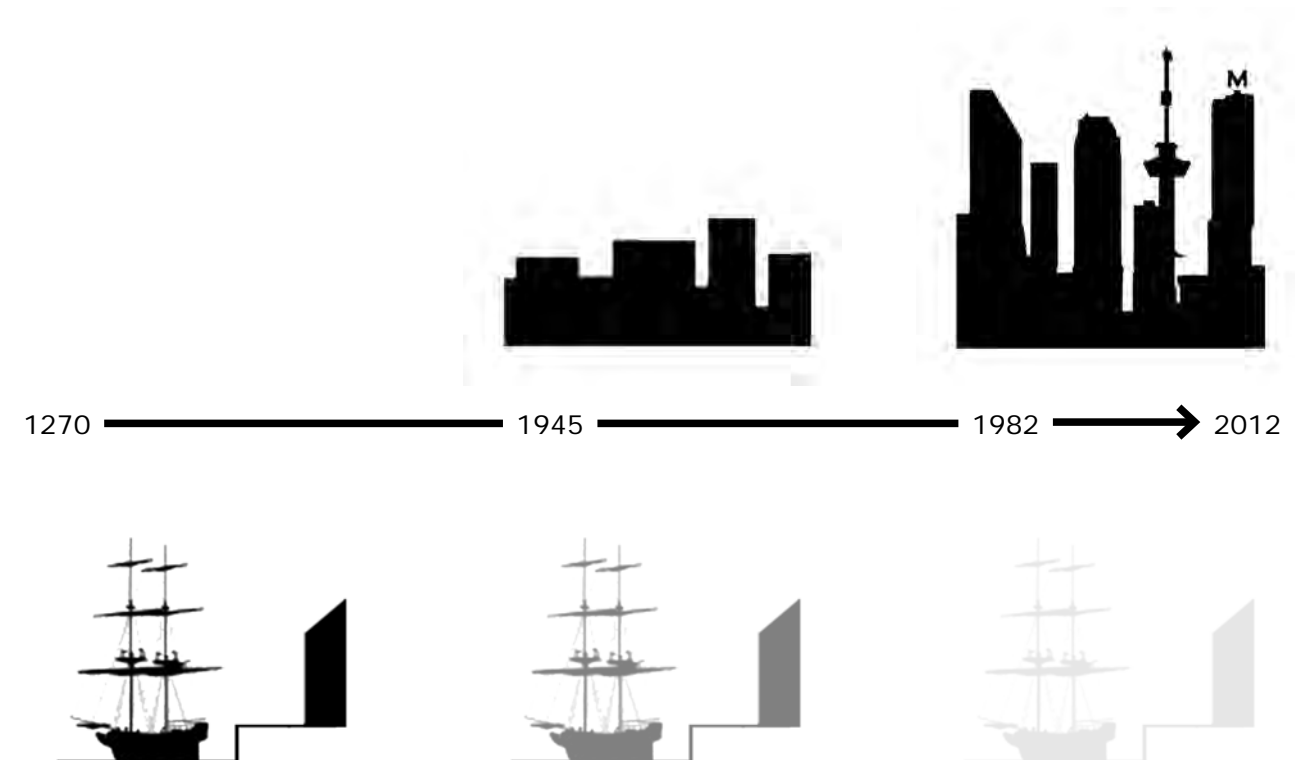


Figure 3.39: Trading at the Boompjes (1910)

The time has now come to turn the tide and solve the problems Rotterdam's city centre is coping with. Stop focusing on almost only the architectural skyline and start thinking about the people and thus invest in public space. To balance the three identities, it's time to restore the oldest identity in downtown Rotterdam: the port of Rotterdam. By doing so, this is an opportunity to restore the former connection between the city's centre and its port and, furthermore I believe, other problems can also be solved by celebrate the waterways in the city. In my opinion, this water will help 'softening' its raw character and bring back the cosyness and vitality it so desperately is in need of. Ultimately, it will turn Rotterdam into not only a different city, but also an attractive and pleasant city people will come to visit for more than just shopping.

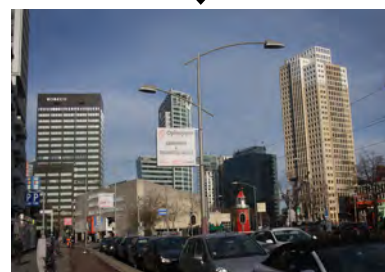
On the next page (table 3.1) it is shown how identity, problems and solutions are related to one another. On the top the post-war reconstruction and skyscraper city identities are shown and related to the six major problems to be dealt with. At the bottom the port of Rotterdam identity is shown and the solutions to solve these problems are shown. Most importantly, by restoring this identity (focus on celebrating its waterways) in Rotterdam's city centre I believe some (if not most) of the urban problems can be solved.

Fig 3.40: Three identities of Rotterdam's city centre over time

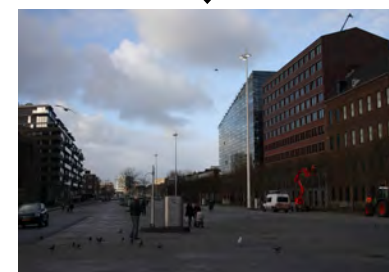




Unattractive and blank facades



Lack of human dimension



A 'cold' and cheerless city



Weak historical links



Neglected waterways



Anonymous spaces



Attractive ground floor frontages



Small-scale projects



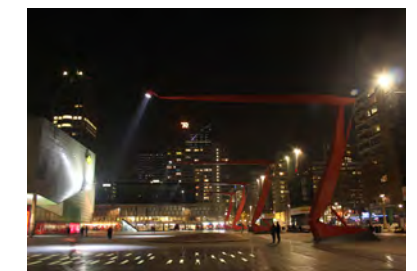
The City-Lounge feeling



Embracing past and present



Celebrated waterways



Recognizable places

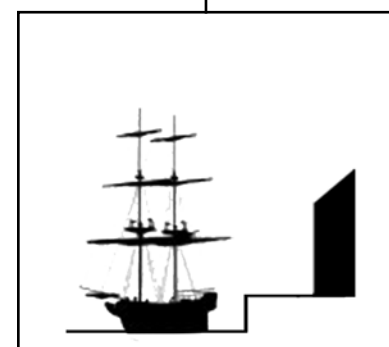


Table 3.1: Relationship between identities, problems and solutions

Urban Acupuncture

4



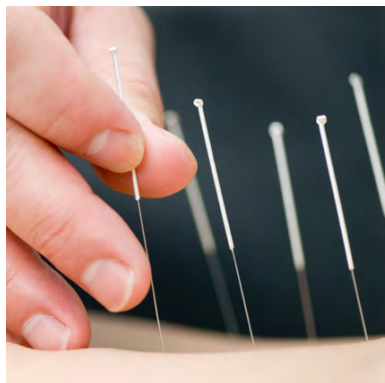


Figure 4.1: An acupunctural treatment

Now one has a basic idea of what urban identity is and the role of the environment in the development as such, we will now discuss the main topic of this thesis: Urban Acupuncture. Although not much has been written on this particular topic, there also does not seem to be total agreement upon the definition of this concept. Besides, it is not always referred to as being Urban Acupuncture. In this chapter, we will start with a short introduction upon acupuncture. Hereafter it is tried to come up with a definition of the concept of Urban Acupuncture, identify its main elements, discuss the theory behind and illustrate how it has been used before. In the conclusion, these subchapters will be summed up.

4.1 Acupuncture

Before I can give a comprehensive definition of the concept of Urban Acupuncture, we will shortly focus on acupuncture here first. In a special issue of *Scape* on Urban Acupuncture (2011: 14), acupuncture is defined as 'a (alternative) treatment in traditional Chinese medicine involving the insertion of needles at points along the meridians of the body' (figure 4.1). Originally, developed in the first few centuries before Christ, acupuncture is embedded in and relies upon naturalistic theories that are compatible with Confucianism and Taoism. Its fundamental assertion is that contemplation and reflection on human sensory awareness, related to ideas like yin-yang, qi and dampness that emphasizes the reliability upon this system, and ordinary appearances are sufficient to understand the human condition, including health and illness. They represent human conditions and are the fundamental patterns for detecting and synthesizing clinical information (Kaptchuk, 2002).

By using yin-yang and qi a patient's treatment is determined. In short, this can be summarized as follows: yin and yang are reflected in images related to weather. Where yin is for example associated with cold, darkness and passiveness, yang is associated with heat, light and assertiveness. Yin and yang and their climatic subcategories are used to interpret specific subregions of a person's health. These subregions can be different from a person's general meteorological pattern. A Chinese diagnosis can be compared to a practical 'weather report' to guide the practitioner's response to the overall configuration of a patient's life. Qi is defined as 'the rationale for explaining change and linking phenomena and, by doing so, locates disorders in the broadest context of a person's life' (Williams, 1986. In: Kaptchuk, 2002: 375). The target of treatment in acupuncture is to locate any imbalances in yin-yang and its connecting qi. Imbalances in yin-yang and qi need to be dynamically harmonized. Acupuncture is used to shift a person's unique 'climate' (Kaptchuk, 2002).

This shifting of a person's unique 'climate' towards a state of balanced 'disharmony' is done with the help of fine needles. These needles are inserted into precisely defined, specific points on the body to correct disruptions in harmony. Classic acupuncture theory recognizes about 365 points, which are to be located on 14 main channels (or meridians) connecting the body in a weblike interconnecting matrix. Additional acupuncture points (both on and off the channel) have been added over time and the total universe of points has increased to at least 2000 now (Huai, 1976. In: Kaptchuk, 2002). Traditionally, each acupuncture point has defined therapeutic actions. Between 5 and 15 needles are used in a typical treatment, with the point combinations varying during a course of sessions (Kaptchuk, 2002: 375).

4.2 Definition

Now one knows about acupuncture as a medicine, we can focus on Urban Acupuncture - being an approach that can tackle some of the urban problems going-on. Like real acupuncture, the Asian medicine, it's about opening up blocked energy (Talviste, 2010). A clear reference to this medicine is given by the office ZUS (Zones Urbaines Sensibles), saying that 'if the needles are inserted in the right spots, the effect upon the entire body is considerable and beneficial' (Scape, 2011: 4). A definition of this concept which include the energy-element is given by Frampton (2003: 76), as he refers to it as follows: '(Urban Acupuncture is where) the critical designer brings to the spontaneous aggregation of contemporary urban form the possibility of intervening at a single meridian point in such a way as to release tensions and to engender new energy flows within the situation, not only in terms of the specific site but also with the regard to future developments emanating from that site in ways which were not foreseen.'

The term Urban Acupuncture was invented in the eighties during Barcelona's revitalisation. In this period, 'there was a great deal of confidence in the positive effects of new public space. More than one hundred and forty urban spaces where designed over the seven-year period (1981-1988), which clearly contributed to an intense renovation of Barcelona's urban landscape (...)' (Acebillo, 2006: 55). At the head of this major project was architect and urban planner Manuel de Solà-Morales (figure 4.2). He, later, described it as a 'small catalytic intervention strategy' (Talviste, 2010: 26), which was about doing '(...) interventions at crucial points provoking comprehensive reactions that improve the whole organism' (Solà-Morales, n.d. In: Shieh, 2006). Frampton (2000. In: Talviste, 2010: 26) states that Solà-Morales main idea was that 'these projects had to be realized within a short period of time and give a maximum impact to the surroundings.'



Figure 4.2: Manuel de Solà-Morales

Another person involved is Jaime Lerner (figure 4.3), architect and former mayor of Curitiba, Brazil. '(Lerner) thinks that tackling urban problems at appropriate pressure points can cause ripple effects throughout entire communities' (Tortosa *et al.*, 2006: 31) and '(...) a positive effect to the whole surroundings' (Hinchberger, 2005. In: Talviste, 2010: 27). Lerner sees the city as 'a living organism composed of a network of energetic centres, each of which serve as potential leverage points (...)' (Tortosa *et al.*, 2010: 35). These interventions, Lerner asserts, must 'be simple, produce an immediate effect, at reasonable costs and applicable to any situation to facilitate the daily life of citizens as well as to cope with urgent needs' (Marzi & Ancona, 2004: 2). To these conditions we will come in the next subchapter.

For now, it can be concluded that Urban Acupuncture is (in short) an approach using small scale interventions in the urban fabric to cause a large scale transformation involving the city as a whole. In short, it's just about 'improving things by means of small, directed interventions' (Scape 2011: 14).

2.3 Elements

Now one knows what Urban Acupuncture means, I will now explore the most important elements of this theoretical concept (figure 4.4). Although relatively little literature on the topic of Urban Acupuncture is available, a few things become clear. In the first place there is the *accuracy* of the urban interventions. Several authors refer to this precision, like Acebillo (2006: 55) when he talks about 'strategically situated interventions' or Lerner (In: Tortosa *et al.*, 2010: 31) speaking about 'appropriate pressure points'. Also in the Scape issue, precision is mentioned as being one of most important elements (2011). The importance of this first element, to be accurate in location, is addressed more in depth by Shieh (2006). He claims that 'in order to be catalytic of urban renovation, the intervention needs to be precisely located'. This is said based upon Nuria Benach's words summarizing Barcelona's revitalisation: 'They (public spaces, author) are strategic, since in order that metastasis can be effective, the initial 'infection' has to be applied to the nerve centre of the neighbourhood, of the city, of the metropolis' (Benach, 2004: 155). Later on, Shieh (2006) quotes Solà-Morales (1999: 82), by saying that the insertion of these precise interventions is 'not a too difficult task, but one that nevertheless requires ample reflection on the whole of the territory.' The importance is thus high.

In the second place, they have to *small-scale* projects. This can be linked to what is claimed by Marzi & Ancona (2004: 2), that in urban centres pointed operations, or networks of points, are the only possible interventions to create a system.

They refer to small seams and interventions of substitution. That these interventions are small-scale can also be concluded as many speak about points (Tortosa *et al.*, 2004; Marzi & Ancona, 2004) or small interventions (Talviste, 2010), instead of large scale urban transformations – the goal of these urban projects. According to Solà-Morales it is about understanding the system and the actual effects of each intervention, without having to resort to major surgery or constant treatment. This is in line with what Tortosa *et al.* (2010: 35) write: 'Urban Acupuncture wishes to maintain this energy of the city, and use potentials and renewals instead of moving things heavily.' The small scale of these urban projects is linked by Shieh (2006: 65) to time as he states: '(they are) therefore economic and able to be implemented in a short period of time.' I will come to this aspect of time, as being a fourth element of Urban Acupuncture, later on in this chapter.

In the third place and together with the previous element they are at the heart of the theory behind Urban Acupuncture, is that they have to be *catalytic for the whole surroundings*. This comes back in the many definitions we have discussed before in the previous chapter, as this is the core of the theoretical concept itself. Besides those already mentioned, many authors talk about '(a) catalytic effect, meaning that is has a high level of pertinence to the surrounding urban fabric and the evolving historical fabric' (Čeferin, 2008. In: Talviste, 2010: 26) or 'provoking comprehensive reactions that improve the whole organism' (Solà-Morales, 1999. In: Shieh, 2006: 60). Being catalytic has been and will be the main goal of Urban Acupuncture. This is done with the help of various small scale urban projects which, in order to have the hoped-for effect, needs to be strategically and precisely located within the city. They are thus strongly interlinked. However, there are two more elements which are interesting to discuss here as they add up to the popularity of this concept, also regarding the worldwide financial crisis.

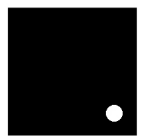
In the fourth place, according to many like Lerner (In: Marzi & Ancona, 2004: 2) and de Solà-Morales (In: Talviste, 2010: 26), the proposed interventions need to be *implementable within a short period of time*. Again, this is also in special issue of Scape (2011). In de Solà-Morales' five points to define small-scale urban projects this element is acknowledged: '(they have to be of an) intermediate scale, to be completed within a limited time scale of a few years' (de Solà-Morales, 1999. In: Shieh, 2006: 55). This element is related to another aspect of Urban Acupuncture, which is that they have to produce an immediate effect, as asserted by Lerner (In: Marzi & Ancona, 2004: 2). On this articles same page, they also state that 'Urban Acupuncture is (created) by the necessity to achieve sensitive affects in shorter time periods with respect to planning.'



Figure 4.3: Jaime Lerner, illustrating his acupuncture approach



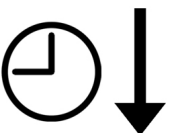
Accuracy



Small-scale



Catalytic for the whole surroundings



Implementable within a short period of time



Low in costs

Figure 4.4: Five elements of Urban Acupuncture

Also Talviste (2010: 27) describes Urban Acupuncture as a 'helping device (...) to achieve sensitive effects in a quicker way.' In this respect, the work of the Spanish architect's office Ecosistema Urbana is worth mentioning. That is, in two of their key projects (Ecoboulevard (figure 4.5) and 'Urban Voids') they used the concept of - what they call - city acupuncture as a method for 'emergency' actions that could operate while the other urban dynamics are catching up. 'The quick solutions are (...) pinpoint projects (...) that activate the place and are the main focus points at the beginning of the longer process. The goal is to support the surroundings while it is growing stronger in its character' (Talviste, 2010: 28). They even proclaim that these initial projects could be 'moved or merged into a process and develop into something new in the future' (idem).



Figure 4.5: **Project Ecoboulevard by Ecosistema Urbana**

In the fifth place, these interventions have not only to be accurate, small-scale, catalytic for the whole surroundings and implementable within a short period of time, but also *low in costs*. Not only according to Lerner (Marzi & Ancona, 2004: 2), but also the special issues of Scape (2011) claims that '(...) in these times of recession it's natural that small, relatively cheap solutions with a big impact are sought' (2011: 15) and, later on, in an article on the regeneration on public life, it states: 'as the financial crisis deepens in many European countries, the economic recession in the construction sector continues (and) cities are cutting their spending on large public works, the time is ripe for low-cost strategies that have a positive impact on the urban habitat' (2011: 19). There seem to be an '(...) increased urgency for finding alternative low cost, (...) strategies that are capable of having a positive impact on the urban habitat' (idem). This and the previous element can be seen as an extra validity to use the concept of Urban Acupuncture, but are not essential elements of this concept.

2.4 Theory

The theory behind the concept of Urban Acupuncture stems from a more simple principle: little things can make big differences. This is in accordance with Casagrande (2009): 'the theory of Urban Acupuncture celebrates the possibility of a light weight touch with a total impact.' Some inspiring examples will be discussed to illustrate the validity of Urban Acupuncture. The first example is a great example of a successful intervention in the book 'The Tipping Point: How Little Things Can Make a Difference' (Gladwell, 2000). Here it is shown how New York subway's problems, related to vandalism, crime and violence (figure 4.6), in the mid-1980s were solved by focusing on cleaning graffiti and public embarrassment of arrested fare-beaters. By being creative and innovative, and looking at the problem from a different perspective, this urban problem was solved by using the same this very same principle.



Figure 4.6: **Graffiti in New York's subway**

Another, second, interesting example is closely related to Urban Acupuncture, but is called "incentive planning" (Duchhart, 2007). It is introduced as an approach to develop landscape development concepts for some cities in Kenya 'to steer urban areas into areas suitable for urban growth in such a way that sustainable land use can be achieved' (2007: 125). Here this approach is used to overcome the constraints after introducing the initial landscape development plan based on land-suitability for urban development. The incentives are divided into: low costs-solutions and low-maintenance; private urban and rural initiatives. Here, the private urban initiatives show the core of this approach: providing environmental stimuli to attract people to certain areas and thus steer urban development (2007). These small scale initiatives have thus the same effect, to work as a catalyst for the whole environment, the small scale urban projects within Urban Acupuncture have on the scale of the city.

Even long before the concept of Urban Acupuncture was known, Jane Jacobs in her famous 'The Death and Life of Great American Cities – The Failure of Town Planning' (1961) already recognised the importance of little things making big differences, especially when she describes how lower Manhattan could easily be turned into a lively district of New York, as a third example, using – in chronological order, stimulated by its predecessor – a marine museum, embarkation points, a sea-food restaurant, aquarium, public library branch, special events, a one-ring circus and some residences. Later on, referring to the development of 'areas where diverse city uses and users give each other close-grained and lively support' (1961: 390), she uses a metaphor using fires burning in a dark field. They differ in size, intensity and closeness, thus carving out a different space in the darkness. Where there is intense darkness, the only way to give it a form or structure is by creating a new fire or by enlarging the one nearest existing fire. This is an almost perfect metaphor describing how Urban Acupuncture works in practice.

2.5 Strategies

Before I will come to a conclusion, I will now discuss two strategies in which Urban Acupuncture plays an important role. Both strategies are described in the recently published special issue of Scape (2011) on the topic of Urban Acupuncture. While both are used to regenerate urban space and life, they each use Urban Acupuncture differently. Some examples are given to illustrate the approach. They differ from upcoming examples (Bilbao, Milan, Barcelona) as they are not just sole individual cases, but are part of strategies that have integrated the concept of Urban Acupuncture as being their way to support the revitalisation of urban space and public life.

The first strategy to be introduced is described in an article called 'The regeneration of public life'. In this article, a low-cost strategy is introduced that has a positive impact on the urban fabric and thus also contests the European financial crisis, economic recession in the construction industry and the cutting expenditures of cities on large public works. In this strategy, independent - but coordinated - small interventions help regenerate urban public space and life. This coordinateness is reflected as they are often part of larger strategies to renovate infrastructure or larger elements of a city, such as a waterfront. Although examples differ in terms of contexts, scale and programme, all are based on small interventions that create direct improvement in the immediate surroundings, but at the same time, because they are part of a broader strategy, they produce a large scale benefit for the city (Scape, 2011).



Figure 4.7: One of the several projects of 'Estonoesunsolar' in Zaragoza (Spain)

Many of these projects are coordinated by municipalities or other local authorities working with a clear top-down structure, but many of them also require substantial public or private investment (idem). Although not identified as such, this collaboration between the public and the private sector supposes the existence of so-called public-private partnerships: 'the close collaboration of a public sector and a private sector, (...) to structure, negotiate and implement the finance, design, development, construction and operation of a facility' (Aller, 2010). An example can be found in Zaragoza (Spain) where the municipality develops the project 'Estonoesunsolar' - in collaboration with neighbourhood associations and technical offices. It is a coordinated strategy of interventions in vacant lots in the centre. These numerous vacant lots are transformed into public landscape interventions and integrated into the public space network (figure 4.7). Empty space (...) have been re-activated and transformed into places that are a new focus of activity in the neighbourhood (Scape, 2011).



Figure 4.8: 'Lausanne Jardins' (Switzerland)

Special attention is also paid in this strategy to temporal interventions - designed specifically to exist for a short period of time. They can offer emergency solutions to temporary public space problems, provide an open field for experimentation and (thus) also be a valuable way of trying out an initiative, which can lead to a successful permanent solution. Landscape festivals, for example the 'Lausanne Jardins' in Switzerland (figure 4.8), are an interesting example of such a strategy, based on coordinated temporary interventions in the urban public space. They partially transform the public space of a city for a few months, establishing new relations between citizens and their urban living environment. A festival based on a particular theme, where interventions are strategically concentrated on specific areas of a city, can thus be considered a temporary Public Space Acupuncture (Scape, 2011).

The second strategy, called 'Open Source Urbanism', is described in an article called 'Activation and transience.' Here, Open Source Urbanism is defined as 'an approach, or a fluid form or urban planning, that focuses much more on creating new possibilities rather than formulating rules. It is based on dynamic planning that in the first places concentrates on developing activities and programme' (Scape, 2011: 27). When an Open City (a temporary configuration of the built environment - a set of conditions for human and spontaneous development, in which the manifestation of the city is based on day-to-day experiences) is regarded as fragmentary and transient and wished developments can only be made possible by catalytic measures and tailored interventions. Unlike Public Space Acupuncture, 'it is not so much a top-down strategy of small interventions that have effect on the city as a total system and its appearance. Rather it is a strategy directed towards activating and creating the right conditions for stimulating the vision of spontaneous urban development' (idem).

An example intended to catalyse the process of bringing spatial change and revitalisation in marginal urban areas with the help of small scale-experiments is the Tempelhofer Field, one of the former airports of Berlin. Here, the construction of a ring where people can exercise, also links up activities and provides orientation (figure 4.9). The old buildings are used as a stage for the fashion tradeshow 'Bread & Butter', the 'Arche Metropolis art project' and a school for learning to ride unicycles. This temporary use is easily seen as a 'quick gain' in the current complex and relatively stagnant field of urban development. Besides relatively little investment is required, they work as catalyst for a city's quality and (thus) can give urban development an identity. Catalyst like these contribute to a city's quality (Scape, 2011).

To sum up the information given in this subchapter, it can be concluded that the concept of Urban Acupuncture is used in two different strategies while both attempting to regenerate urban space and life. The strategies and their associated examples not only help to reach this goal, but also illustrate the wide applicability of this concept in urban design. Interestingly both strategies connect Urban Acupuncture with temporal interventions in the city and thus it seems that this concept can be an effective strategy in, for example, the case of an experiment or to generate a 'quick gain'. Also interesting is the connection with public-private partnerships in the first strategy discussed. Here, the public and private sector collaborate to re-activate and transform vacant lots in Zaragoza. I believe that public-private partnerships, although complex processes, can play an important role in the development of a feeling of belonging, by direct involvement and the ability to express themselves, as part of urban identity.

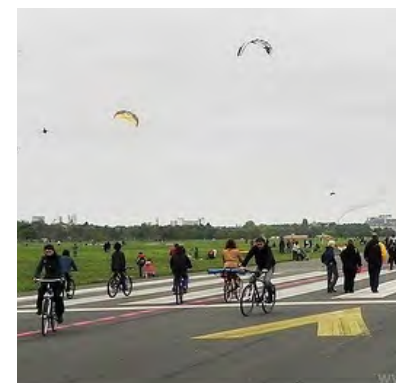


Figure 4.9: Old air strip, part of Tempelhof Park

2.6 Conclusion

Now we have explored different aspects of the concept of Urban Acupuncture in depth, we can sum up and draw conclusions from previous subchapters (definition, elements, theory, strategies). In the first place it should be noted that there are still an aspect of acupuncture which is not well integrated in Urban Acupuncture although it would be of an added value for the concept. Here, I refer to the interconnectedness of the inserted needles. That is, in an acupunctural treatment, these are to be located on so-called main channels (or meridians) connecting the body in a weblike interconnecting matrix. Although mentioned by some authors (for example Marzi & Ancona, 2002), not much attention is paid to it in the examples discussed and it is not identified as being one of the five elements of Urban Acupuncture. As a result of this knowledge gap, it also becomes not clear if and how these separate, individual interventions can be connected within the urban tissue in such a way they contribute to the final goal of Urban Acupuncture being to solve urban problems and/or support a large scale urban transformation.

In the second place, it is important to realize that although there seems to be general consensus on the definition of Urban Acupuncture, this seems not to be the case for the five distinguished elements here. From the five elements mentioned, only the first three elements are agreed upon by all authors. Thus, Urban Acupuncture can be labelled as a strategy in which accurate, small-scale interventions are created that work as a catalyst for the whole surroundings. However, according to some authors, these interventions, referred to as urban projects mostly, have to be relative low in cost and to be implemented within a short period of time. Nevertheless, regarding this last element (to be implemented within a short period of time), no conflicting facts can be found in literature or practice. The element to be low in costs however is in sharp contrast with the example of the Guggenheim Museum in Bilbao, which will be discussed in the next chapter. Though in the special Scape issue it is referred to frequently, also taking into account the current financial crisis going on worldwide. Thus, as said before, in times of recession this might be a legitimate reason to use Urban Acupuncture as a strategy to solve urban problems.

In the third place, the subchapter on the strategies and the examples discussed here not only demonstrate the broad scope of this concept, but also can be seen in the light of a change in the planning of cities. Urban Acupuncture is used in planning processes differently to break with traditional urban planning. Both strategies introduce new systems to cope with the problems related to urban space and public life.

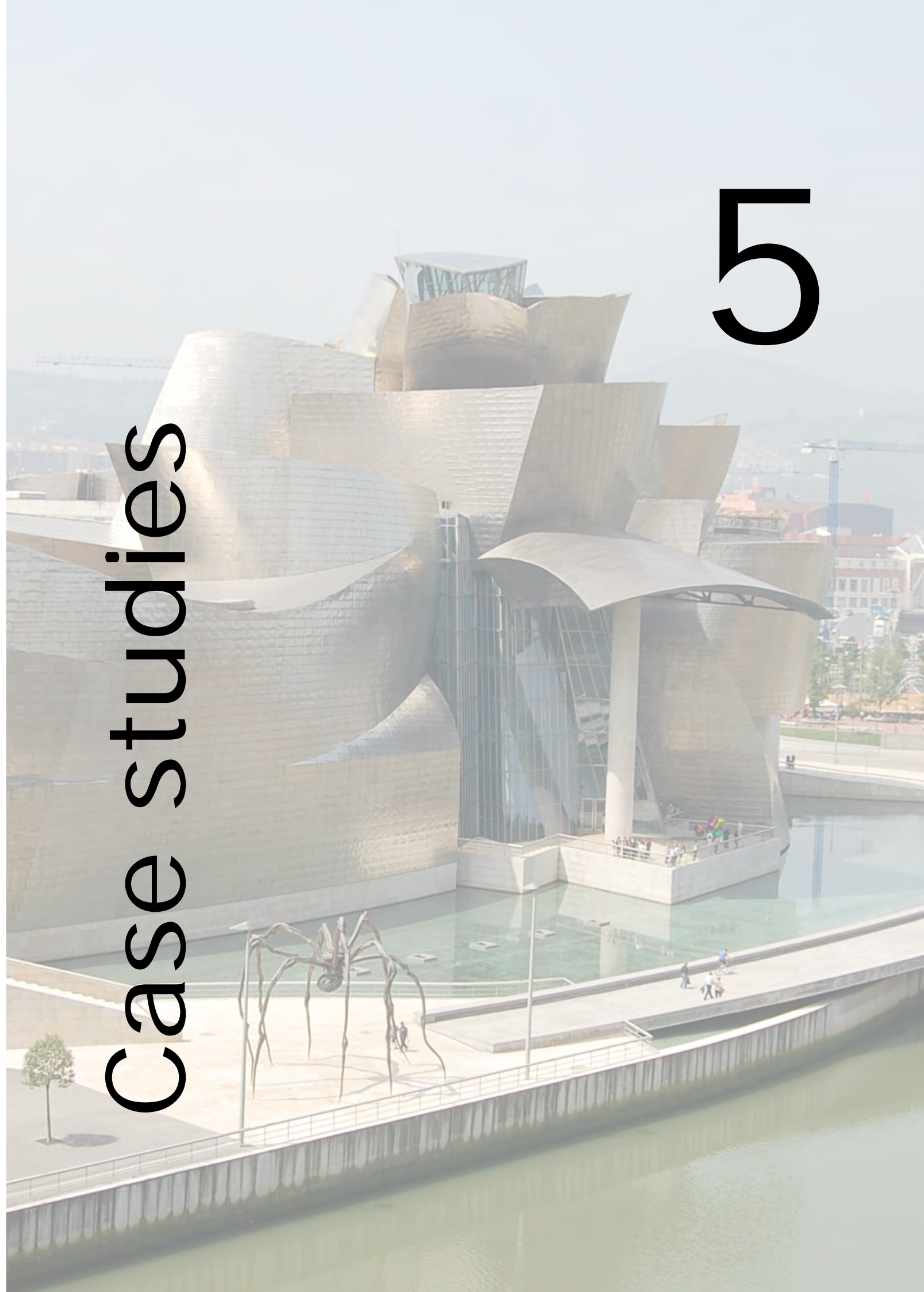
This is also acknowledged in the Scape issue, where it is said that 'Urban Acupuncture is not merely the 'small intervention', (but) also bound up with a broader stream of thinking on urban and landscape planning – that is it impossible in this day and age to create a city in the old modernist planning tradition of the static, hierarchically organized top-down approach, where the focus is on achieving a final image. The new city is about fragments and change, about creating conditions and planning from the bottom-up' (Scape, 2011: 15). Thus a new way of urban planning is proposed and Urban Acupuncture can play a key role in this process of change.

In the fourth place, it is illustrated that Urban Acupuncture can be used as an approach to solve urban problems in contemporary cities. From the strategies and the given examples it becomes clear that Urban Acupuncture has been successfully used in several cases, revitalizing urban space and public life. From this, it might now be wrongly concluded that Urban Acupuncture is the one-and-only solution for the ever-growing complexity of urban issues. Urban Acupuncture is however not the only solution to deal with urban problems. In some cases, another approach needs to be addressed in order to solve the urban problem(s) in question. Maybe a more large scale urban transformation is needed. It is thus important to keep in mind the concept itself is not the solution to all the urban problems worldwide.

Furthermore, as every situation has a different context, the outcome is place-specific. A solution found for a certain problem in one city, is mostly not directly implementable in other cities. The problem can be the same, the solution can be different. What works in a certain situation, can't work in another. It is thus not a one-size-fits-all concept. It is the theory behind what unifies the projects dealing with Urban Acupuncture. It can be therefore maybe better regarded as an umbrella term for several incentives 'to bring revitalisation and sustainability to the world metropolitan areas' (Tortosa *et al.*, 2010: 31).

Case studies

5



Although by now one should have a general impression about the concept of Urban Acupuncture - its meaning, basics and principle - we have only discussed a few examples so far. An important question to be answered still is if Urban Acupuncture is a successful approach or tool in dealing with urban problems. In this chapter, this question will be addressed. Three examples will be explored more in depth. They all have urban identity as being one of important goals of the urban development. Their individual importance and their link with the previous chapter will be discussed in the conclusion.

5.1 Bilbao, Spain

Bilbao, capital of the province of Biscay, is located in northern Spain, in the autonomous community of Basque. It is Spain's 10th largest city, with a population of about 353.187 people (National Statistics Institute, 2010). The metropolitan area even reaches up to 905.866 people, which makes it Spain's fourth-largest city and includes its largest port. For long, due to its strategic position, it has been the economic and financial capital of Basque too. It was during the industrial revolution, that Bilbao reached peak prosperity and the city remained Spain's northern capital of steel and shipping up until 1975, when the recession struck and turned it into a decaying backwater (Plaza, 2000)

After 1975, economic crisis struck and industry was no longer profitable. As all economic activity was dependent on this heavy engineering industry, the whole economic structure within the province of Biscay collapsed. This resulted in a 24% loss of jobs in this branch only between 1979 and 1985 (Gomez, 1998) and by 2005 manufacturing jobs made up for only 22% (instead of 46%) of the total (Eustat, 2006. In: Plöger, 2007). This abuse of industry resulted not only the physical decay of the historic neighbourhoods but also in declining living conditions of the working-class population (J. Urriolabeitia. In: Plöger, 2007).

However, not only had 340 hectare traditional industries become obsolete leaving derelict industrial buildings (figure 5.1) and a contaminated soil (M. Valdevielso and J. Alayo. In: Plöger, 2007), also there was severe traffic congestion in the city centre (Siemiatycki, 2005), violence from extreme Basque separatists (Abadie & Gardeazabal, 2003; Plaza, 2002) and furthermore urban deterioration, pollution and poor public transport (Plaza, 2008). Combined with the few renowned cultural assets to attract leisure tourism and the unpleasant weather (annual rainfall: 150L per m²), the city of Bilbao clearly lacked a positive image (Plaza, 2000). All this resulted also in a 14% loss of the population of Bilbao between 1980 and 2005 (Eustat, 2006. In: Plöger, 2007).



Figure 5.1: An example of a derelict industrial building in Bilbao (Spain)

Soon after, a few years after the re-establishment of Spanish democracy when the crisis was nearing its peak, political leaders at all levels of government realised the significance of the structural changes underway during the early 1980s (Rodríguez *et al.*, 2001). In order to deal with the acute urban decline, flexible, integrated interventions were sought. Based on success in other Spanish cities, like Madrid and Barcelona, a project-based regeneration approach was chosen. The framework for this approach was based on the 'Territorial Plan' for Bilbao presented in 1989. The main objective of this 'Territorial Plan' was to bring the urban decline to a halt and re-establish Bilbao as a key node on the European Atlantic axis. Four so-called 'opportunity areas' for regeneration were identified in Bilbao by this plan. In addition, the plan provided in major infrastructure investments, particularly in transport and sanitation (Plöger, 2007).

In 1992, a not-for-profit publicly sponsored partnership (involving all the governmental levels) called Bilbao Ría 2000 was created with the authority to deliver the regeneration of the 'opportunity areas' in Bilbao. Its main aim being to manage the large-scale revitalisation of abandoned land formerly occupied by harbours and industries or by obsolete transport infrastructure. Due to its financial autonomy, responsibility in carrying out the main redevelopment schemes in Bilbao and the access to land, Bilbao Ría 2000 became and nowadays still is the major planning and regeneration body in Bilbao (Plöger, 2007).

In this same year, 1992, a plan was made to regenerate and promote the city of Bilbao. This plan, called 'A Strategic Plan for the Revitalization of the Metropolitan Bilbao', was set out by the association Bilbao Metropoli 30 and the Basque administration. The role of Bilbao Metropoli, founded in 1991, being a facilitator for the regeneration process and to promote the objectives set by the strategic plan (González, 2006), was based on a partnership model with public and private sector shareholders. This being not a coincidence, as one of its objectives was also to strengthen the interaction between those sectors. Other tasks include the local and international promotion of Bilbao's new image as a post-industrial city and the funding of research into the metropolitan area.

In its founding documents Bilbao Metr poli-30 identified four fields of action: formation of a knowledge-based high-tech sector; inner-city urban renewal; environmental intervention and strengthening of cultural identity through culture-led regeneration. Key items which played an important role in this future process were innovation, professionalism, identity, community and openness (Pl ger, 2007).

In line with the objectives of this association, the objective of the 'Strategic Plan for the Revitalisation of the Metropolitan Area' was thus to develop the city from the industrial sector to the service sector and revitalize the deteriorated zones, with the help of both the public and private sectors. The plan has also been established in order to improve inhabitants' quality of life and adapt the city to the new global market. It tries to convert Bilbao in an open, plural, integrated, modern, creative, social and cultural city by addressing no more than eight issues for the future (Lopez, 2006). From here, I will focus on one of this issues, linked to what probably can be regarded as its main catalyst in this transformation process: the Guggenheim Museum Bilbao.

A part of this plan, proposed under issue 5 (urban regeneration), was to build some emblematic buildings in the city 'to foment social and cultural centrality and improve external image' (Lopez, 2006: 5). Amongst these buildings are the Euskalduna Palace, the Bilbao Exhibition Centre and, of course, the Guggenheim Museum Bilbao (hereafter: GMB; figure 5.2). This last project, which costs the city nearly a € 114 million, was intended to be the core attraction for tourism in a city not known for its tourist attractions in order to revitalize its economy (Plaza, 2000). It is designed by architect Frank O. Gehry and opened its doors in October 1997 in the degraded area of Abandoibarra, so as to decentralize city activity and stimulate the economy of that area (Lopez, 2006). The museum is not only a museum, but furthermore comprises an auditorium, a library, a restaurant serving regional specialties and a bookshop containing the latest books on contemporary painting (Iglesias, 1998).

The GMB is now considered the most representative of the new Bilbao – a modern architectural landmark recognizable worldwide. It also contributed to the development of tourism and the democratization of culture in the city of Bilbao (Lopez, 2006). That this is not only theory is illustrated by the fact that since its opening, it has, according to the Financial Times, attracted almost 5 million visitors in just 3 year time resulting in \$ 500 million in economic activity (Rybczynski, 2002). This is also approved by Plaza (2008), stating that the museum attracts on average 800.000 non-Basque visitors a year compared to less than 100.000 before the GMB opened. Up to 2006, 9.2 million visitors has spent a total of 2.16 billion dollars – a contribution of over 2 billion to the GDP and a tax revenue for the Basque government of 342 billion (Ponzini, 2010). Furthermore, Plaza (2008) also demonstrated that Bilbao attracted more visitors (54% of the growth), from Spain and abroad, and also had more overnight stays (50% of the growth) due to the GMB.



Figure 5.2: **Guggenheim Museum Bilbao at night**

The economic impact of this tourism development also affected other sectors in a positive way and, by doing so, employment sustained and new jobs were even generated. With more tourists coming in every day, the transformation of relevant infrastructure in order to be able to receive all its visitors and satisfy their needs was a necessity to do. Although the GMB worked as a main catalyst in this process, also other emblematic buildings in the city played a key role. A striking example is the metro Bilbao, designed by Norman Foster (figure 5.3), which not only has been important for the connectivity of the city and minimizing traffic in the city, it also helped Bilbao to reinforce its identity and attracts visitors due to its beautiful architecture (Lopez, 2006: 6).

However, there also some critics (Battaglia, 1998; Gomez, 1998) who do not think that the strategy implemented in Bilbao will adequately restore the city's economy, nor will it give justice to the large investment – taking up most of Bilbao's public budget for cultural activities (Zallo, 1995. In: Gomez & Gonzáles, 2001) – in the GMB (Plaza, 2000). Also Rybczynski comments on the GMB as being show-dog architecture not paying much attention to its surroundings, claiming that 'after the third example of swirling titanium and colliding prisms, the effects begins to wear in' (2002: 4). He continues saying that 'the 'wow factor' may excite the visitor and the journalist, but it is a shaky foundation on which to build lasting value. Great architecture should have more to say to us than 'Look at me' (2002: 5). This is accordance with Gomez & González saying that 'the extent to which the GMB is unique remains at best uncertain, (being) the risk of failure even higher once places are forces to copy each other, as the barrel of new ideas becomes depleted' (Gomez & Gonzáles, 2001: 898-899). Griffiths (1998) even states that this re-imaging strategies of this type have tended to overwhelmingly homogenize place.

In line with these critics, Bilbao's city report by Plöger (2007) is careful in its conclusions about the effectiveness of this project-based regeneration approach. This is also because 'the indirect (...) effects in the city are extremely wide if immeasurable' (J. Alayo, interview. In: Plöger, 2007: 30). But critics are also there, for example regarding the metropolitan public transport system. Although efficient, inexpensive and widely used, critics point out the lack of coordination between some of the existing systems. Also newly designed public spaces have been criticized by some as they do appeal more to affluent groups than to create amenities for urban society as a whole. In general, nevertheless, it seems that the approach used by the city of Bilbao has helped to boost its economy and urban regeneration and the city is now internationally recognised as a successful example of urban recovery.



Figure 5.3: **Famous metro stop by Norman Foster**

5.2 Milan, Italy

Milan, Northern Italy, is the capital of the region Lombardy and the province of Milan. With its 1.350.000 inhabitants it is the second largest city in Italy, after Rome. As in the case of Bilbao, its influence goes beyond the boundaries of the city and makes the Greater Milan population approximately 3,5 million and the metropolitan area of Milan even reaches up to a 7.4 million (Marzi & Ancona, 2002). Due to its strategic position, it has a very rich industrial and commercial history. However from the seventies on the city encountered a demographic shrinkage in its population of about half a million people. According to Marzi & Ancona, 'reasons for this phenomenon are numerous and complex, (but) one partial explanation is that a large part of the population leaving Milan has been attracted by the opportunity of a life outside the city but near to it, thus enjoying both the best environmental quality offered by country life and the cultural and economic of the city areas'. This has caused an excessive territorial consumption by building and a large amount of traffic movement. According to Pucci (n.d.: 5), 900.000 vehicles from the Province (80%) enter the city every day, in addition to the already existent 600.000 cars in the city itself (Marzi & Ancona, 2002). This development, in turn, had resulted in an on-going deterioration of the urban environmental quality of Milan (idem).

Like Bilbao, starting from the beginning of the eighties, the change from the industrial sector to the tertiary sector led to the closure of large factories, job losses and the neglect of important industrial buildings (Trono & Zerbi, 2002). This, over the years, has resulted in abandonment and the consequent availability of large urban sites, both in the proximity of the city centre and periphery. With the help of the Urban Re-enhancement Project, promoted from the nineties by the national government, an era of city fabric renewal took place, being the key elements the recovery of derelict areas, green areas, and better transport links within the urban area and with the outside world in the reorganization of 'Greater Milan' (idem). The plan for 'Greater Milan' involved ten urban environments for a total surface of 1.7 million square metres of abandoned sites.

However, according to Marzi & Ancona (2002), these urban interventions are isolated, lacking the force of a system and are not part of an useful network. It shows that 'the city is considered in different parts, that the interventions respond to a separate logics and to an episodic procedure in which it is difficult to find a uniting thread (...). Above all, it denotes the absence of an orientation for urban development in the coming years (idem: 4).

This consideration is at the heart of the project proposed for the city of Milan. Here, the external ring road – between the city centre and the periphery – is presented as being a forgotten, but great, opportunity to come up with a public spaces adequate for the dimension of the city. This external ring road, a concentric ring around the city planned at the end of the 19th century by Cesare Beruto, is intersected by radial axes starting at the city centre leading up into Milan's hinterland. Being 20 kilometres long and a constant section of 40 metres (with a 15m wide double tree lined central parterre), it now is a barrier limiting and excluding contact between the centre and the periphery. It now serves the vehicular mobility on the two lateral tracks, with the central parterre being for fifty percentage of its length dedicated to the parking of cars or – another fifty – the service of public transport (buses/ tramways). Only 15% is dedicated to light traffic, moving on the two lateral paths (Marzi & Ancona, 2002).

In the project, it is proposed that new conditions of mobility should be created which help to see the external ring road as a connecting public space, a continuous link between the city centre and the peripheral districts. At the same time, the external ring road does also link together the urban interventions of the Urban Re-enhancement Project and the places of recent interest to new projects. They form the resources of the system. The external ring road has thus the potential to create a system able to linking distant points and urban districts together (figure 5.4). Furthermore, because of its shape, the ring road is a baricentric place for the city, placed in the middle of the city centre and the urban periphery.

An eventual renewal should be able to bring the same benefits to the central district as to the cities' periphery. Marzi & Ancona (2002) distinguish four of them: urban and architectonic (new urban gate; substitution of old buildings), environmental and transportation (better acoustic and visual comfort; safer circulation; improvement of the use of public transport), social (participation of people) and economic (possibility of building new underground parking areas; commercial exploitation). It also addresses two out of three of the risk factors of the Milanese economy, identified by Comune di Milano (1997. In: Trono & Zerbi, 2002), namely the insufficiency of infrastructure and the poor environmental and urban quality in some zones.

To make this project in Milan a success, with a solution easily adaptable to all different contexts, the project proposes a new distribution of the street section taking into account all the different and existing characteristics as well as conserving the historical image of the ring road by protecting and enriching it according to the principles of sustainable development.



Figure 5.4: The external ring road linking distant points and urban districts

Therefore, the lines of trees, the position of the roads and the sidewalks are maintained. In addition, the central parterre is proposed to be left open for the disposal of pedestrian mobility. Cars will be parked under the central parterre. Two protected lanes, besides the parterre, are ensuring the free circulation of vehicles for public transport and taxis (figure 5.5) Furthermore, rhythmic occurring project elements (like artworks etc.), designed with respect to the specific section, add up to the functional mix (Marzi & Ancona, 2002).



Figure 5.5: **Old division (left) and as proposed in the project (right)**



Figure 5.6: **A future impression of the new external ring road**

To sum up, by redesigning the external ring road of Milan it will be made possible to give room to the various traditional functions of the street. The proposed project sees the street not just as only attending mobility, but also communication, information and culture, to emphasize the strong existing relationship between the opportunity to grow and the possibility of movement through the territory. The project will thus not only improve environmental quality, but also increase traffic safety, help to create a sense of place and being a public place where people can meet (figure 5.6). Besides, the simplicity, the modularity and the typological characterization of the road network, reinforced by the repetition of recurrent elements, unifying characteristics are guaranteed making the urban space even more recognizable (Marzi & Ancona, 2002). This all helps to stimulate the urban identity of Milan.

5.3 Barcelona, Spain

Barcelona, being the second largest city of Spain with 1.615.908 million inhabitants (4.856.579 in metropolitan Barcelona), is the capital of both the autonomous region of Catalonia as well as the province of Barcelona. Since long, it tries to cope with the negative image of the city - already in 1908 the 'Society for the Attraction of Foreigners' spread a new image of a cosmopolitan Barcelona, instead of its representation as an industrial and revolutionary city (Smith, 2005). It has been associated not only with industry, but also political unrest, deprivation and deprecation (idem). It wasn't however during the period of Generalissimo Francisco Franco's tyranny when a 'lack of demographic control, with nonrepresentative local authorities operating within a dictatorship, encouraged urban speculation and resulted in a disorganized urbanism and an architecture suffering from even greater sadness' (Maragall, 1994: 25). According to Blanco (2009) this has resulted in explicit socio-spatial segregation, which - due to this lack of democracy and scarce autonomy - resulted in a very strong social mobilisation demanding 'better social housing and the remodelling of the existing housing stock; improvement in public education, sanitary and health services; improvement in public transport services and road safety; more public spaces; more cultural activities; and political freedom' (2009: 375).

After the fall of dictator Franco in 1975, the city of Barcelona was thus left with an even more negative image than before. Moreover, the start of democracy in Barcelona coincides with a situation of, on the one hand, a worldwide economic recession caused by the double oil crisis in the seventies which strongly affected the city's industrial base and resulted in increasing unemployment; and, on the other hand, the 'developmentist' period conducted during Franco's regime had left a very unbalanced urban system, with extensive urban areas that suffered from severe urban deficiencies. All of which had to be dealt with by still very immature democratic political institutions and by a public administration with very limited capacities (Blanco, 2009).

Although not an ideal period to deal with these issues, Barcelona came up with a regeneration plan for the city already one year later, in 1976 - still three years before the advent of a democratically elected city council in 1979. The plan called 'Plan General Metropolitano de Barcelona' (PGM) was formulated. However, this plan was soon rejected by the city council after (Monclus, 2003). Due to reasons I will come to later, Barcelona decided to change their planning from the traditional long-term planning of function and area (...) to an active city policy, in which the public sector initiated renewal by designing dozens of new public spaces, squares and parks' (Gehl & Gemzøe, 2001: 28).

This approach is often associated to what I call 'qualitative urban design'. Following Blanco 'the basic characteristic features are the use of specific regeneration projects instead of global urban development plans for the city; the recuperation of the historical city's own public areas, such as squares and streets; the 'monumentalisation' of the suburbs through small-scale projects of innovative public equipment, public art (figure 5.7) and specific ground plans and surface operations. All in all, it is a model of "qualitative urban development"' (2009: 359).

Oriol Bohigas, leading architect-planner at the time, supervised this strategic restructuring of Barcelona. This was based upon four basic principles, which will be discussed below. The first principle being to pursue projects, not plans. This was based upon the belief that cities are 'a patchwork aggregation of differing fragments (and) are better understood by piecemeal inspection and analysis of their separate districts. Only then can the city be moulded into a whole by the continuity of streets and paths and by skilful forming of public spaces and architecture' (Maragall, 2004: 24). A series of projects were to be developed, arising from a detailed study of each area. 'This enabled the city to undertake the repair and reconnection of local places and neighbourhoods with strategically located projects that recreated value and pride (...)' (idem).

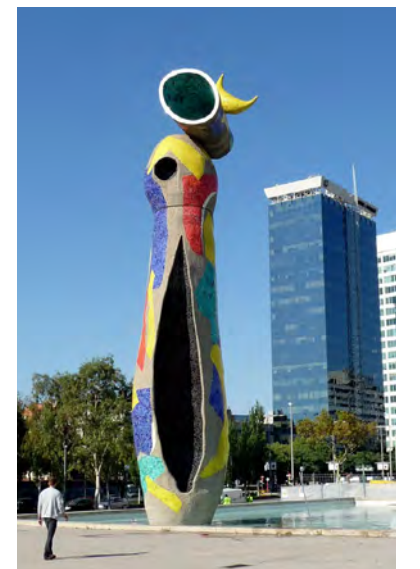


Figure 5.7: **Public art by Joan Miró in Barcelona (Spain)**

The second principle of this restructuring project was to focus on reconstruction and improvement of existing areas rather than to support further expansion (Maragall, 2004). There was more than enough under-utilized space and buildings within the existing city to accommodate housing and general urban development that would be needed in the foreseeable future. In addition, Gehl & Gemzøe (2001) stress that new public spaces were also created by pulling down dilapidated apartment buildings or abandoned factories - mostly in the old city centre. This focus has also been the result of a change of thought and ideas in urban planning per se, as shown by Monclus (2003). Part of this new thinking was an idea that gained popularity over time, of tackling urban problems through specific projects, especially the regeneration of public space and community facilities (Monclus, 2003). Moreover, already in the sixties and early seventies, a new appreciation of the traditional and its collective component, like streets, squares, etc., was born which resulted in the reclaiming of traditional public spaces by the eighties.

The third principle emphasized the making of meaningful social settings rather than focusing on social projects. Districts were to be linked back into the city to take full advantage of it, all with the help of reconnection and revitalisation projects (Maragall, 1994). A fourth, but very important, principle was to begin the reconstruction of the city with public spaces and not public housing (figure 5.8). It was believed that 'such a strategy immediately increases the wholeness and improves the quality of life in existing areas, and, when skilfully planned, can be the catalyst for restoring and rebuilding districts' (Maragall, 2004: 26). That this was not only a belief, is demonstrated by Gehl & Gemzøe, when they claim that 'the improvements had contagious effect on (...) urban renewal and renovation of the many dilapidated buildings' (2001: 29).

In general, these four principles focus 'on the immediacy and integrative power of local projects couples with an overarching vision of a city whose districts and neighbourhoods have their own identities and are strongly interconnected' (Maragall, 2004: 26). It's not too difficult to see the similarities between the theory behind this strategy and that of Urban Acupuncture. I will come to this in the conclusive section of this chapter.

Gehl & Gemzøe (2001) have examined the current public spaces in Barcelona more in depth. They acknowledge both architecture and sculpture have played a key role in their design, as almost every new public space has its own work of art by an internationally famous artist. That is why the unique characteristics of each public space were thus not only to be emphasized by the design of the space itself, but as well by the individual works of art.



Figure 5.8: **Public space in Barcelona (Spain)**

Furthermore they distinguish between two different tactics. In the city centre traditional materials and furnishing were used in the designs; reflecting respect for tradition. An example of such a public space is Plaça Reial (figure 5.9). Those squares and parks outside the city centre were different. These public spaces look very contemporary in their design, furniture and choice of materials. They break with the tradition and conventions of how a public space should look like. An example of such an innovative park is Plaça dels Països Catalans (figure 5.10).

Gehl & Gemzøe (2001: 31) also conclude that 'Barcelona's public spaces comprise an impressive variation of different designs of lightning, furniture and surfaces'. This is because, in the process of the design, there has been a strong emphasis on designing each individual space as an independent site with its own identity. The problem of this is the considerable maintenance problem encountered at many sites later on, sometimes worsened by the extent of many different materials, details and types of furniture.

Despite this variety in materials, furniture and detailing, Gehl & Gemzøe (2001) have identified a number of different types of public spaces in Barcelona. The first type, squares, have the character of 'stone rooms', serving as urban living rooms and meeting places. The second type, also squares, are called 'gravel square' and have a focus on resting or playing, often with an area of gravel as focal element. The third type, being parks or 'urban oases', include a large variety of elements and spaces for activity or passivity. They are mostly characterised by a large green landscape element, often with gravelled areas and large surfaces of stone. Water serves as a dividing element between them. The fourth element is the promenade - a place to walk, sit, rest or play in the midst of a lively boulevard. They are mostly new interpretations of the Rambla motif, combining car traffic, walking and recreational activities.

Whether all these interventions have been successful or not, one has to consider not only the small scale interventions as they are part of a bigger plan to revitalize and regenerate Barcelona. According to Juan Busquets (In: Shieh, 2006), the interventions can be divided in three different groups, in order of scale and time of implementation: urban rehabilitation, urban restructure and morphological key structures. The small scale projects we refer to here are aimed at urban rehabilitation and were to be realised in the period till 1986. Hereafter, at medium term (1986 - 1992), urban restructure was possible through re-organizing of the road system and the creation of new neighbourhood centres. Within the long term, the city has been able to realize larger morphological projects such as the waterfront (after 1992; figure 5.11 on next page).



Figure 5.9: **A traditional square: Plaça Reial**



Figure 5.10: **An innovative square: Plaça dels Països Catalans**

This comprehensive process of regeneration has been described by many as the 'Barcelona Model' (Marshall, 2000; Balibrea, 2001; Monclus, 2003). According to Monclus (2003: 399) some authors refer to this model focusing on design issues and the quality of public urban spaces, while others highlight the capacity to manage unique flagship events (like the Olympic Games of 1992) and convert them into strategic instruments of urban renewal and regeneration. Blanco (2009: 356), based on Casellas (2006) identified some more elements of this 'Barcelona Model', these being: design and implementation of regeneration projects of specific areas of the city, giving priority to the public areas as the ultimate urban and collective areas; development of a relational model of management, based on the co-ordination between different governing levels and the private-public partnership; creation of autonomous public agencies providing a flexible local management; the territorial decentralization and the participation of citizenship in public policy making.

It is beyond the scope of this thesis to discuss the full process of urban regeneration related to this model here, as from the focus on urban restructure and morphological key structures, the projects no longer involved small-scale projects but shifted towards more strategic planning: large scale projects which were to be implemented within a larger time frame and involved high costs. Thus, the strategies used after the first period of urban regeneration are not only no longer the same as those after the end of Franco's era and before the allocation of the Olympic Games in 1986, but also include elements that are being the opposite of those in Urban Acupuncture.

As was the case in Bilbao, authors disagree about the outcome of Barcelona's regeneration process. For example, according to Shieh (2006: 49), 'Barcelona has even since been criticized by many, for becoming too much of an urban model serving the interests of the dominant economic interests.' Here it is also referred to the GMB, to show that the 'cultural approach' has become an easy and widespread solution - though incomplete - to many cities in the world. In Smith (2005: 407) it is said that if solely measured in terms of tourist receipts and tourist images, the approach Barcelona used to revitalize and regenerate the city has been successful. However, Barcelona's attempts to distance itself from images of the past has been controversial in a time where many in Spain tried to discourage 'desmemoria' (the culture of forgetting).

A fierce opponent of this urban regeneration process of Barcelona, to which many authors refer, is Balibrea. He (In: Smith, 2005) points out that Barcelona's re-imaging is complicated and controversial because of competing narratives regarding the city's Catalan, Spanish and European identity.



Figure 5.11: **An example of a morphological project: the waterfront**

Furthermore, this blending of a political and ideological context - through beautification of the urban space - creates a dangerous consensus among inhabitants, tourism en admirers (Shieh, 2006). However, this blending has been said to be fascinating too by Smith (2005: 408), as 'the city appears to have used specific re-imaging initiatives to meet political, alongside tourism, objectives'. As an example the Olympic Games can be mentioned here. They possess synecdochical images, due to sport's symbolic capacity, media exposure, contemporary significance and popularity plus the fact that meticulous attention is paid to external appearance and setting, but also carry out political objectives (Shieh, 2005).

However, also referring to new sport facilities, Smith (2005: 414) warns that 'the critical mass of iconic edifices now present in Barcelona may be beginning to confuse the city's image, rather than enhance it' (figure 5.12). Referring to Rybczynski (2003), as also was the case in GMB, there remains the possibility that tourist may suffer from 'architectural fatigue' and thus become immune to the synecdochical effects of new buildings, however spectacular their design is. This symbolism and grand statements point out a new strategy, 'worryingly reminiscent of conventional boosterism' (Smith, 2005: 416). It wasn't the idea to draw up an overall plan to remodel the city, but to survey the city district by district (Montalban 1992. In: Smith, 2005) - a reconstruction from below, with attention to individual neighbourhoods, with the help of individual projects. To come up with a clear, coherent and meaningful holistic image of the city - pleasant and easy to consume by tourists - was needed to become a successful city destination, but can result in various problematic effects, for example the neglect of the social and geographical urban periphery (Smith, 2005).

So there seems to be a lot of criticism regarding Barcelona's regeneration plans. However, whatever the critics say, Barcelona is regarded as one of the Europe's most fashionable cities; now deemed to be a cultural, cosmopolitan, lively and aesthetically pleasing city (Smith, 2005); a more accessible and liveable city, with more open space, a better traffic system and better communication (Maragall, 1994); a reinforcement of Barcelona's identity and an international laboratory for urban design (Acebillo, 2006) and Barcelona has been transformed into a city that provides an example of how to facilitate increasing density while maintaining a liveable and relatively compact city (Nelson, 2003). It has succeeded to free itself from its negative image and now to be at the same time a popular tourist destination (from 3.1 million visitors in 1990 to 9.1 million in 2003 (Turisme de Barcelona, 2003. In Smith, 2005) and a city where citizens are proud of.



Figure 5.12: **Agbar Tower, one of the iconic edifices**

5.4 Philadelphia, USA

Philadelphia (USA) also has a long industrial history. Therefore, up to the fifties of the 20th century the population grew fast, also due to the influx immigrants from Europe in early 1900s (Minock, 2007). By 1952, the city had reached its population peak, tipping just over a 2 million people (idem). However, after the fifties several factors, including industrial decline, resulted in a loss of over almost half a million citizens up to 2000 and thus 'in a widespread urban vacancy in the form of abandoned housing units and former industrial facilities' (Philadelphia City Planning Commission, 1995. In: Steele, 2005: 4; figure 5.13). By 1995, according to a Vacant Land Study conducted by this same commission, 45% of all residential street segments in the city contained some kind of abandoned property in the form of vacant structures or vacant parcels of land. More than a third (36%) of these (...) segments contained at least one vacant residential structure (Steele, 2005).

Other factors influencing this abandonment were a prejudicial housing policy, racial and political unrest and subsidies supporting new developments on the urban fringes (Steele, 2005). Because of this, and because of rising unemployment and a changing quality of life, many residents left the city for suburban counties with more space and greenery. Even retail and entertainment started leaving downtown, leaving the inner-city deserted (Minock, 2007). This suburbanisation, in the form of urban sprawling, low-density housing and commercial development, has affected the natural environment negatively as well as Philadelphia's aging infrastructure.

This has had both social and economic impacts. From a social perspective urban voids send a negative image of the city to the outside world and from an economic perspective the blighted properties and desertation leave the city with a decrease in tax base. In total, \$ 3.8 billion by diminishing property values and uncollected property tax revenues (Econsult Corporation, 2010). Add up to this the costly services to manage vacant land and demolish abandoned structures (Steele, 2005), being a total of \$ 20 million dollar each year (Ecoconsult Corporation, 2010). Also the citizens of Philadelphia have been effected by this, mostly the large African American population (43%) in the decaying neighbourhoods. As most of them are also amongst the 19% of the population falling below the poverty rate, there is no money left for repairing their older homes resulting in continued abandonment and vacancy. The result is a cyclic process, as this aging housing stock decays and spreads abandonment throughout communities (Steele, 2005). Besides, proximity to a vacant parcel reduces home values by an average of 6.5% citywide (Econsult Corporation, 2010).



Figure 5.13: A vacant lot in Philadelphia (USA)

Not surprisingly, the city is actively seeking ideas on how to help transform from a 19th century industrial city to one that is 'competitive in the new information economy' (Philadelphia City Planning Commission, 1995. In: Steele, 2005: 6). According to City Planning Commission of Philadelphia, this means 'restructuring neighbourhoods (by) transforming the aging, blighted, and worn out sections of the city into healthy, attractive, and desirable living environments (...). Redefining the relationships between housing types and private open space, better integrating of automobile use and parking needs into urban neighbourhoods, and retrofitting an aging physical infrastructure to accommodate new neighbourhood design ideas are all part of the restructuring process' (idem). To reach this revitalization of the city, from the mid-nineties, several studies have been done by various stakeholders. These will shortly discussed now.

In June 1995, the Philadelphia City Planning Commission published 'Vacant Land in Philadelphia' (figure 5.14) - an analysis of both vacancy conditions and the administrative procedures that have evolved to deal with them. In September 1995, the Pennsylvania Horticultural Society, through its Philadelphia Green program, released 'Urban Vacant Land: Issues and Recommendations'. This report describes a variety of management techniques of urban vacant land. By the end of 1997, the City's Office of Housing and Community Development had even launched two more studies: 'Vacant Property Prescriptions' and 'Neighbourhood Transformations'. Both reports advanced public debate by illustrating the variety of partnerships and specific projects that the city and non-profits had executed during the administration of mayor Edward Rendell (Hughes, 2010).

Hereafter, in the late nineties, the Pennsylvania Horticultural Society released an comprehensive 'Vacant Land Management Study', consisting of four separate studies. The first study was a Cost / Benefit Analysis (1999), establishing the financial rationale for considering alternative approaches to vacant land management. The 'Asset Management Approach to Vacant Land Pilot Program for Eastern North Philadelphia' (1999), the second study, presented a plan for the comprehensive management of all vacant land within Eastern North Philadelphia. The 'Evaluation of the New Kensington Neighbourhood Open Space Management Project' (1999), the third study, examined the effectiveness and impact of a pilot vacant land management program. The fourth and last study of this program was called 'Managing Vacant Land in Philadelphia: A Key Step Toward Neighbourhood Revitalization' (2000), presents recommendations for the implementation of a comprehensive system for managing vacant lots in the neighbourhoods of Philadelphia (Fairmount Ventures, 2000).

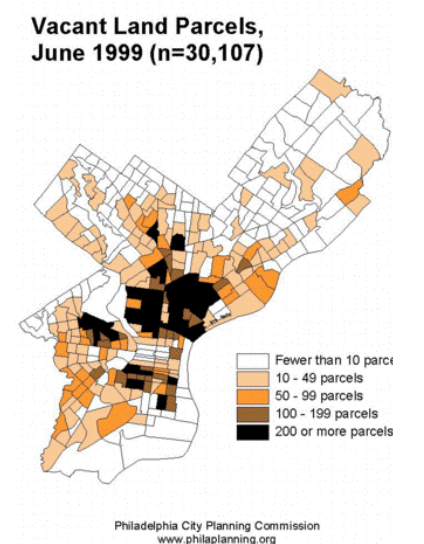


Figure 5.14: A figure in 'Vacant Land in Philadelphia' showing the vacant land parcels present (June 1999)

Besides several planning related conclusions drawn from these (in total) seven studies, like the recommendation that 'the city needs to build an information base on vacant property that is comprehensive, timely, and capable of supporting strategic decision-making' or 'should coordinate decision-making to assure that various city agencies are working toward common goals' (Hughes, 2010: 2), another conclusion is more interesting for this thesis, being that 'the city (should) tailor programs and interventions to neighbourhood-specific needs, which can very considerable' (idem). Their context-dependency is also stressed by claiming that 'these vacant properties must be viewed in the context of surrounding neighbourhoods' (2010: 4). This was realised by means of citizen participation, as part of a design competition which I will introduce below.

In 2005, a design competition entitled 'Urban Voids: Grounds for Change' was launched by the City Parks Association of Philadelphia, as part of the project Philadelphia LandVisions. In a first phase, by a series of community participation meetings, residents were asked to relate guiding values and desires (translated into principles and strategies) about their neighbourhoods, as well as imagine unique opportunities for vacancy. Also, they were informed by experts about the city's ecological foundation. Unfortunately, the original collaboration between nature and city seems to be less dynamic, natural patterns are suppressed in favour of static, built patterns (Steele, 2005). This has resulted in many environmental problems over the years. Considerable reference in this phase is made to neighbourhood level public spaces and green infrastructure, seen as 'an opportunity to rethink and reshape the relations between built and natural patterns within a city' (idem: 6). This public commitment to green design, based on collective values and guiding principles, shows residents are looking to redefine the image of Philadelphia (Steele, 2005).



Figure 5.15: **Winning project 'Waterworks' of designed competition.** By KieranTimberlake Associates

In a second phase, design offices were asked 'to propose new visions and possibilities for Philadelphia's extensive inventory of vacant land by responding to the city's unique ecological infrastructure' (City Parks Association, 2008: 68) (figure 5.15). In this competition it was 'aimed to recognize and acknowledge the importance of the existing examples of traditional urban fabric in Philadelphia (form and usage patterns of the past, author), while also diverging from the traditional method of (urban voids) development to create new spaces for shared public recreation and activities within the city' (Meyer-Boake, 2006: 1). This not only 'will allow the citizens to form a common bond, a belief and pride in the heritage and form of their urban environment' (2006: 4), but also 'will serve as a new reference, or system of communal values' (idem) 'as the way in which people in the contemporary city live is very different (...) in which they lived in the past' (2006: 3).

According to Meyer-Boake (2006) the city of Philadelphia has a great opportunity to rethink the way in which it revitalizes its numerous urban voids, and a great responsibility to the inhabitants of the city to create 'new public spaces that are exciting, vibrant, work to knit together the fragmented fabric of the city, and provide successful spaces for human interaction' (2006: 2). Urban voids should be seen as 'a system or network of public interventions, which will work to change the urban landscape and positively affect the lives of those who inhabit the areas' (2006: 9). New re-uses of urban voids will also 'help to change citizens perception of the city, and help to foster a more positive image of the blighted urban core' (2006: 3). Here, the urban interventions (re-uses of urban voids) are seen as part of a bigger public space network, affecting the urban fabric and Philadelphia's residents on a much larger scale.

From the requirements set for this competition, it becomes clear that accuracy plays an important role, as it is proposed that 'each (urban void) should first be examined and assigned a programmatic usage 'plug-in', which will allow the space to draw people to it, and will in turn help to reinsert the space into the public sphere' (Meyer-Boake, 2006: 3). This 'process of assigning various programmatic 'plug-ins' to specific sites will involve detailed investigation into the nature of the site, the carrying capacity of the site, the environmental stability of the site, and the contextual environment of the site' (2006: 10). Based on this thorough examination, 'various programmatic possibilities and options could be applied to the sites' (idem). Thus, the insertion of specific activation strategies into the urban voids is expected. And, in this competition the most important action in reactivating the urban voids is to recognize and insert the territories with the most potential (Meyer-Boake, 2006).

In the last decade, Philadelphia has launched the 'Green City Strategy', based on the previous work of the Pennsylvania Horticultural Society (PHS) and being part of the Neighborhood Transformation Initiative launched in 2001. This initiative is 'a strategy to rebuild Philadelphia's neighbourhoods as thriving communities with clean and secure streets, recreational and cultural outlets and quality housing' (Fairmount Ventures, 2000: 3). Six goals, including blight elimination and prevention, are set to revitalize Philadelphia's neighbourhoods. The 'Green City Strategy' helps to reach these goals as it turns vacant lots into clean, usable spaces that can attract new development or become permanent open space (figure 5.16). Also the promotion of development and improvement of community gardens, neighbourhood parks and commercial corridors is included, as well as the beautification of streets and offering horticultural education and training opportunities (site Pennsylvania Horticultural Society (PHS)).



Figure 5.16: **A vacant lot turned into a play garden**

Philadelphia Green has developed a model for stabilizing vacant land by replacing unsightly abandoned lots with 'clean & green' landscapes of grass, ringed with trees and wood fencing (site PHS; figure 5.17 - 5.18). Like said before, these green spaces aren't meant to be permanent rather they serve to display the land's full potential. The land may eventually be developed or converted to a community garden or park. Either being temporary or permanent, recently storm water management techniques have been included in these projects to help retain rain water (working in collaboration with the Philadelphia Water Department) as, in heavy rainfalls, the volume of the water exceeds the capacity of the combined storm- and waste water sewer system. Until now, more than 70 acres of vacant land have been changed into this 'clean & green' landscape. Nearly 2,000 trees have been planted, nine community groups are helping to maintain the sites, and more than 75 community residents have been hired to support maintenance activities. Research conducted by the University of Pennsylvania showed that residential real estate values in the New Kensington neighbourhood increased by 30 percent due to a 'clean and green' landscape (site Cooperation Conservation America).



Figure 5.17: **Vacant land before the 'clean & green' strategy**



Figure 5.18: **Vacant land after the 'clean & green' strategy**

Furthermore, according to the latest study on vacant land management in Philadelphia (Econsult Corporation, 2010) the city can also gain economic advantages of this process of change. For example, it has been calculated that the construction activity would generate \$ 180 million in economic impact each year, supporting 800 jobs and \$ 30 million in earnings and producing \$ 1.9 million in taxes to the city. Besides, selling those new units would generate about \$ 4.1 million in real estate transfer tax revenues per year. Adding those new units would add \$ 43.5 million in property tax base and another \$ 3.6 million in property tax revenues to the city of Philadelphia per year.

Thus, there seem to be enough reasons to actively re-activate vacant land in Philadelphia. As we have seen, urban voids result clearly have severe impact on the city's image, economy and quality of life. In turn, to re-use vacant lots will only bring lots of money for the city and its residents, but also positively affect the image of Philadelphia, bring environmental benefits and stimulate a vital, social life. Urban voids in Philadelphia are thus not to be seen as 'an obstacle (vacancy as absence) but as an asset (vacancy as possibility)' (Meyer-Boake, 2006: 1). To look at vacancy as a resource, using it to make 'sweeping design gestures that will lead to better relationships with nature and assist in redefining the personality of the city' (Steele, 2005: 17), is an opportunity helping Philadelphia's search for a new identity - 'one that will resolve the thorn of urban vacancy' (idem).

5.5 Conclusion

Now four different examples of Urban Acupuncture have been discussed, I will compare them and look for similarities and differences. It is not my attempt to do a full comparative case study, also as the examples described are focusing on different aspects and are in different planning stages. However, it is tried to show the broad use of this concept in general. Hereafter, they will also be held to the light of the five different elements of Urban Acupuncture identified in the previous chapter.

If we consider the first example Bilbao, it soon becomes clear that this is very different from the others as this example seems to hang on just one important intervention in the city, which is, of course, the Guggenheim Museum Bilbao. Although part of a bigger revitalization plan for the city, it differs from Barcelona and Philadelphia where it has been dealt with many small-scale urban interventions spread out all over the city. In both cases, there does not seem to be one important key element that initiated the redevelopment of the cities. The case of Bilbao further differs because it has been an expensive operation, not specifically mentioned in the other examples. I will come to this later in this conclusion also.

There are however also several similarities, mostly with the case of Barcelona. In both cases, Urban Acupuncture is part of a bigger story also including large scale revitalization of abandoned areas or infrastructural elements. This is partly also the case in Philadelphia, as part of the Neighbourhood Transformation Initiative, although there is not an explicit reference to this so-called large scale revitalization. Another similarity with Barcelona is that in both cases public-private relations play an important role, as we have also seen in one of the strategies of Urban Acupuncture. Interestingly, even some of the comments are the same, as it is warned for this 'cultural' approach as being insufficient and 'architectural fatigue'. However, in the case of Barcelona it is then mostly referred to the 'grand statements' of the last years, being not part of actual Urban Acupuncture.

The second example, Milan, is, also very different from the other examples and, in my own opinion, might not even be regarded as Urban Acupuncture due to its quite large scale and lack of accuracy. This will also be discussed later. The focus in Milan is on the connection between already existing and newly developed urban spaces situated along the external ring road. It is tried to create an urban system or network, as a connection between the urban interventions. Here, the connection itself is not only seen as a connector but also as Urban Acupuncture, being a catalyst for the whole environment, bringing several benefits (environmental, social, economic) to the city.

The third example discussed here is Barcelona, comes close to what is referred to most frequently as being Urban Acupuncture, including most of the five elements identified in the previous chapter to which I will come later. In the case of Barcelona several, independent urban interventions have been done on the scale of the city, being part of a bigger plan to revitalize Barcelona. This tactic has also been used in the case of Philadelphia, although there are some differences. In both cases, focus was on left-over and under-utilized space, although in Philadelphia urban voids were to be re-used while in Barcelona they were mostly existing public spaces. Besides, while both are part of a bigger revitalization plan for the city, the planning process in Barcelona seems to be more coherent and less complex than in Philadelphia (see below).

The fourth example, Philadelphia, seem to have some features in common with Barcelona, as discussed above. Both use certain spaces in the urban fabric to come up with a positive image of the city itself. However, Philadelphia differs from Barcelona as focus is on the relationship between the built and natural pattern in the city (in which new public spaces had to be developed), while in Barcelona focus was more on the social settings of public spaces. Also the planning process differs, as here the citizens of Philadelphia actively participated and came up with opportunities to re-use urban voids. In Barcelona, the public was not asked to actively engage in the process of urban rehabilitation and it was more a top-down approach instead of bottom-up. At last, as said in the previous paragraph too, the planning process seems to be less coherent and more complex. In Philadelphia, extensive research has been done on this topic and it does not become clear if and how these two initiatives ('Urban Voids - grounds for Change' & 'Green City Strategy') work together. If not, and it does look like that, this must be regarded as a missed opportunity to deal with the problem of urban voids in an integral and multiple way.

Although there seem to be more differences than similarities so far, there is also one important similarity shared by all four examples. That is, all cities discussed here have a rich industrial industry and, after the decline of this sector, are coping with the same problems like a shrinking population, rising unemployment, political unrest and, most of all, abandoned areas (figure 5.19). These four cities suddenly had to find a different way of making money and presenting itself to the world, which meant get rid of the negative image as being an industrial city in the first place. They all tried to do so by making the transfer from the industrial sector to the tertial sector, using Urban Acupuncture (or better: what is seen as such) in a different way. A way that fits the context of the city in question, illustrating the context-dependency discussed in the previous chapter. The same problem, a different solution.



Figure 5.19: A typical abandoned industrial area in Bilbao (Spain)

Now we have discussed some of the most relevant differences and similarities, let's now compare these four examples with the elements (or maybe even: criteria) of Urban Acupuncture (results table 5.1). If we consider the first element, accuracy, it is addressed in all examples except Milan. In Bilbao one can conclude they thought of a proper location for the GMB as to decentralize city activity and stimulate the economy of the degraded area of Abandoibarra (Lopez, 2006). In Barcelona it's referred to more frequently, when talking about 'piecemeal inspection and analysis', 'detailed study of the area' and even of 'strategically located projects.' In Philadelphia, in the design competition they also talk about 'detailed investigation' and 'thorough examination' before assigning a programmatic 'plug-in'. In the case of Milan however, the location of the urban intervention (external ring road) is fixed and thus accuracy doesn't come into play here.

The second element, small-scale (projects), is only explicitly referred to in the Barcelona example and is in contrast with Milan. In Barcelona they specifically talk about a 'monumentalisation' of the suburbs through small-scale projects, when they describe the basic characteristics of the 'qualitative urban design or planning'-approach. In this model, also the use of specific regeneration projects is preferred instead of global urban development plans. This project-based approach is also taken as an example in the case of Bilbao. In Milan, however, the reconstruction of the external ring road involves 800.000 m2 and thus can not be regarded as being a small-scale project (figure 5.20).

The third element, being catalytic for the surroundings, is part of all the examples. In all the four examples, the (planned) urban interventions had or will have bigger effects on the scale of the city. All used the theory of Urban Acupuncture to get rid of their negative image as industrial city and transform into an attractive and pleasant city for both tourists and inhabitants. Again, in Barcelona, it is directly referred to when discussing the fourth principle of their strategy, believing that to focus on public spaces instead of public housing 'immediately increases the wholeness and improves the quality of life in existing areas, and, when skilfully planned, can be the catalyst for restoring and rebuilding districts' (Maragall, 2004: 26).

The fourth element, to be implementable within a short period of time, is again only discussed in the case of Barcelona. Here, the first phase of the revitalisation process (small-scale projects aimed at urban rehabilitation) were to be realised in the period from 1981 till 1988. In just 7 years, over 140 urban public spaces have been designed and built - being the numerous small and individually strategically situated to obtain large scale changes and substantial objectives (Acebillo, 2006).

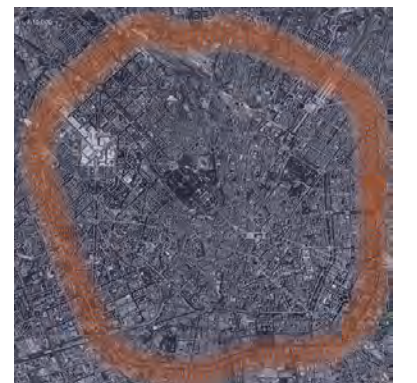


Figure 5.20: Masterplan for Milan's external ring road

The fifth elements, to be low in costs, is the only element of Urban Acupuncture not referred to explicitly in one of the four examples discussed. However, in this respect the example of Bilbao is interesting as here it seems that this urban intervention has been exceptionally high in costs (€ 114 million), even ‘taking up most of Bilbao’s public budget for cultural activities’ (Zallo, 1995. In: Gomez & Gonzáles, 2001: 899). This is in direct contrast with what has been said by so many authors and the special Scape issue on Urban Acupuncture. However, at the time of the opening of the GMB, there was not a financial crisis going on worldwide and thus, in these times, the requirement to be low in costs is still very relevant nowadays.

One might have noticed that in this comparison the example of Milan hardly fits any of the elements, except being catalytic for the surroundings. As there is no accurate pinpointing of urban interventions involved in this example plus it can not be regarded as a small-scale interventions, I conclude that this example can’t be seen as a proper example of Urban Acupuncture. This is in contrast with the vision of the authors, which focus on Urban Acupuncture in the introduction of the paper. However, the Milan example is not useless here as it shows how interconnectedness between urban interventions can be achieved. This can help to reinforce identity. Although other examples talk about a system or a network, Milan shows how this can be done by using an infrastructural element. This can be a solution offered to the knowledge gap talked about in the conclusion of the chapter of Urban Acupuncture.

Elements of Urban Acupuncture / example	Bilbao (Spain)	Milan (Italy)	Barcelona, (Spain)	Philadelphia (USA)
Accuracy	Yes	No	Yes	Yes
Small-scale	Yes	No	Yes	Yes
Catalytic for the whole surroundings	Yes	Yes	Yes	Yes
Implementable within a short period of time	Yes	Unknown (no)	Yes	Unknown (yes)
Low in costs	No	Unknown (no)	Unknown (no)	Unknown (no)

Table 5.1: Elements of Urban Acupuncture versus case studies

Urban Acupuncture vs. urban identity

6

Urban Acupuncture as an approach towards urban identity

Now I have discussed the topics of urban identity and Urban Acupuncture, it isn't directly clear how these two concepts are related and thus how to properly answer the research question of this MSc-thesis. In this final chapter of the theoretical framework, this question needs to be answered. Therefore, I will now try to bridge the theoretical gap between urban identity and Urban Acupuncture. First I will focus on what I refer to as the missing link and then, secondly, I will say something about the role Urban Acupuncture can play in this process of strengthening urban identity. In the conclusion, I will summarize both chapters.

6.1 The missing link

If one thinks of the main outcome of the chapter on Urban Acupuncture, the five criteria set, and of the conclusive scheme of urban identity, a direct link is hard to find and I believe something is missing before these concepts can be properly linked. Urban Acupuncture in itself does not reinforce urban identity and an intermediate step is needed to do so. What this missing link will be discussed below.

From analysing the examples of Urban Acupuncture in the previous chapter it becomes more clear what is the missing step in this process. In all examples, a certain strategy is used in the acupunctural approach to reinforce urban identity. This strategy included one or more focal points. In the strategy of Bilbao, the focus is on innovative design - the GMB being the climax of this kind of architecture. In Barcelona, focus is both on innovative design and public art. In Philadelphia, the focus is on revealing the city's ecological infrastructure. Although not regarded as 'proper' Urban Acupuncture, in Milan the focus was on re-using cultural heritage, a popular strategy amongst many cities too. If one deduces these focal points, focus in these examples is on architecture, art, nature and/or cultural history - but there are many more focal points.

What is important here is how a city can decide which strategy (including one or more focal points) it should use in order to strengthen their identity. In my opinion, one should begin by analysing the urban context. In this process of searching for a city's identity, it is important not only to focus on what is there but also on what's not there (yet). This is important as in most cases the cities who acknowledge have an identity problem, mostly lack a strong identity in itself. This does not always mean a new identity has to be searched for, as it can also be that their identity is obscured. This has been the case in Philadelphia, where the relation between the built and natural patterns has been disturbed over the past years (in spite of nature) and where Urban Acupuncture has been used to restore the unbalanced relationship.

If we consider the other examples, strategies are different. In the case of Bilbao it is clear this city chose to come up with something new, something which was not there yet. Bilbao has tried to get rid of their image as an industrial city including its negative associations. To improve their external image Bilbao has built some emblematic building, amongst the GMB others include the airport of Bilbao (Sondica), the Zubizuri Bridge (figure 6.1) or the Maritime Museum. These emblematic icons of Bilbao do not try to fit in the urban fabric in a traditional way, but in a new, fashionable and modern way. These buildings add something new to that place, supporting their present identity.

In Barcelona, both strategies are used as identified by Gehl & Gemzøe (2001). In the historical city centre, it was tried to fit in the old improved or newly created squares in their context while in the urban periphery new innovative designs are in sharp contrast with their surroundings. In the city centre public spaces were thus developed taking the current identity of those places as a starting point, while in the outskirts of Barcelona it was concluded that it was identity that was missing and time 'to put a face on the faceless' (Unknown, n.d. In: Gehl & Gemzø, 2001: 28). Here, we can see an experimentation of forms of expression and very contemporary looking spaces - all used to create a distinctive and unique public space.

The example of Milan is interesting too, because although it can't be seen as a 'proper' example of Urban Acupuncture the focal point used here, cultural heritage, is a focal point that can be and have been used by many cities struggling with their identity. However, I believe it is very different from the others. Unlike most of the other focal points discussed here, cultural heritage is bounded to specific spots in the urban tissue - either existing in the past or still present. If a city takes cultural heritage as a focal point, the urban interventions to be done to reinforce the identity of that city are place-bounded and options are - I believe - more restricted than if one chooses architecture, art or nature to be their focal point.

Furthermore, objects are bounded to this place because of the context of that location and its history. For example, the forts of the New Dutch Waterline are all strategically placed in the landscape and have been built in times of possible war threats. In this case, the forts have been also designed to perfectly fit into the landscape. These forts have thus a very recognizable and exclusive character (figure 6.2). To intervene in these settings is thus a very careful operation. In conclusion it becomes clear that cultural heritage, unlike an architectural or artistic masterpiece, is not something one can create at any place any time within the urban pattern. It has to be there already or have been in the future, unlike the other focal points, otherwise it makes no sense.



Figure 6.1: Zubizuri Bridge in Bilbao (Spain)



Figure 6.2: 'Fort aan de Klop', Utrecht

Before I will continue exploring this difference between a focus on what is there and what is not there (yet), one has to realize that also within the focal points itself different methods can be chosen. If for example art has been chosen by a city as their main focal point to strengthen their identity, only this is just not enough. For example, in this case, one needs first to decide on what form of art - will it be sculptures (figure 6.3), paintings or photography. Based on this, decisions can be made about the genre depicted or the style practised. Although a mixture of methods is possible, it stresses that after one or more focal points have been chosen, methods to use this focal point(s) can differ and decisions have to be made.

Interesting with regard to what's there that contributes to a city's identity but also what's not there, is an article by Gospodini (2004) in which she examines 'the ways specific aspects of urban morphology such as built heritage (cultural heritage, author) and innovative design may contribute to place identity in European cities' (2004: 225). Throughout this article it is proved that in this post-modern multi-ethnic and multi-cultural society, innovative design works more efficient as a focal point in the same ways built heritage performed this role in modern-culturally bounded and nation-state oriented European societies. This is so, because innovative design 'may permit divergent interpretations by individuals thereby fitting into the 'diversity' and 'individualization' of new modernity; may synchronize different ethnic/cultural/social groups by offering themselves as a new common terrain for experiencing and familiarizing with new forms of space and, by becoming landmarks and promoting tourism/economic development (generating) new social solidarities among inhabitants grounded on 'civic pride' and economic prospects' (idem). She concludes by claiming that built heritage tends to get weaker as an effective new means of place identity, while innovative design gets stronger by adding or creating distinct landscapes.

To sum up, the most important conclusion here is that if one wants to strengthen the identity of cities Urban Acupuncture is not a solution in itself. What is needed too are one or more focal points. The focal points are used by cities in their strategy to reinforce urban identity. These can be related to what is already there if it about the identity of the city, but also can relate to what seems to be missing in the search for an urban identity. Simplified they can be something old improved or something completely new. According to Gospodini (2004), in contemporary society, innovative designs are more effective in contributing to place identity than built heritage. Whether this is true or not is debatable (for example, it is in contrast with Twigger-Ross & Uzzell's principle of place-referent continuity), but within the context of Rotterdam (see conclusion) and the proposed design intervention this is of particular interest.



Figure 6.3: The famous sculpture 'De verwoeste stad' ('The destroyed city')

6.2 The role of Urban Acupuncture

From the previous subchapter, one can conclude that Urban Acupuncture should not be seen as a focal point and thus can't be of help to reinforce urban identity in this way. However, only the identification of a (or more) focal point in the strategy of a city is not enough to strengthen urban identity. Focal points help to create to come up with possible interventions in the city, but don't hardly say anything about where these urban interventions should be located. I explicitly say hardly, as in the case of cultural history the locations are fixed. As I will explain, it is Urban Acupuncture that can be used as framework to place the numerous small-scale projects so typical of Urban Acupuncture in the urban fabric.

Seen from this perspective, to regard Urban Acupuncture as a framework, an interesting article has been written on this by Tortosa et al. (2010). In this article, Urban Acupuncture is seen as a method that 'on the one hand tests the local effects of every project, and on the other hand establishes a network of points or dots to act upon' (2010: 31). It's main objective is 'to apply a neural network model to the field of Urban Acupuncture, so that we can use a self-organizing algorithm to determine a network of points on which to develop possible actions to improve or revitalize certain areas' (2010: 32). Hereafter, the Growing Neural Gas 3D (GNG3D) model is applied in the city of Elche (Spain; figure 6.4) to create a network consisting of 30 nodes or points on which to develop possible actions for urban Acupuncture.

Although this modelling might be relevant from the perspective of the authors - all employees of the department of computer science and artificial intelligence or department of graphic and cartographic expression at the university of Alicante (Spain) - in my opinion this method does not take care of the context. Because the urban interventions become independent of the context, it will not be sure if the projects are located at the right points to work as catalysts for their direct environment. This is in contrast with two of the three basic elements of Urban Acupuncture, that is they have to be strategically located and be catalytic for the whole surroundings. This accuracy and precision can only be achieved after a thorough analysis of the context, which has not been done in this case. To conclude here, in my opinion the GNG3D model used here is too random and in this way I believe the 'appropriate pressure points' so important to many authors will never be found.

If I now consider the first three elements or criteria of Urban Acupuncture (accuracy, small-scale, catalytic for the whole surroundings) - those which form the basis of Urban Acupuncture - one can easily tell they are all related to the where-aspect.



Figure 6.4: The initial mesh on top of Elche (Spain)

In turn, this also emphasises why Urban Acupuncture can't be directly transferable into design principles that will help to reinforce urban identity. The elements by themselves don't answer the question how to strengthen the identity of a particular city. Therefore, as discussed in the previous subchapter, one or more appropriate focal points are needed to address this aspect of strengthening a city's identity. But once they are identified, the concept of Urban Acupuncture can be used, I believe, as an approach to find the proper locations for the urban interventions. How to do so is addressed in the paragraph below where an example is given.

So if a city - in search of an own identity - decides to take public art as a focal point in their strategy to reinforce its identity and, to be more specific, wants to use innovative and modern street furniture (figure 6.5) to do so, Urban Acupuncture will help to position these objects. The city has to find the right nerves to act upon, where they will succeed the most in working as a catalyst for the immediate surroundings. To find them, a thorough analysis is needed as accuracy in the process is most important. Furthermore, it is looked for small-scale interventions - further narrowing down the locations still left. In this way, Urban Acupuncture thus steers the search for proper locations in a certain direction to come to those locations which will ultimately strengthen the identity of the city the most.



Figure 6.5: **An example of innovative and modern street furniture design in London**

6.5 Conclusion

Summing up, Urban Acupuncture alone is not enough to successfully strengthen urban identity as there is no direct link between the elements of both concepts. Logically, as Urban Acupuncture is a new way of thinking towards urban problems and not to specifically address the topic of reinforcing a city's identity. Though this problem being part of the set of urban issues in contemporary cities, still an intermediate step is needed to truly strengthen the urban identity of the city. This involved the designation of one or more focal points, either something which is not there yet or what's there already (but now obscured). Gospodini claims that, in post-modern multi-ethnic and multi-cultural society, innovative design works more efficient as a focal point than cultural heritage - for the most as innovative designs 'may synchronize different ethnic (...) groups by offering themselves as a new common terrain for experiencing and familiarizing with new forms of space' (2004: 25). Taking into account Rotterdam has almost a 50% immigrants (CBS, 2011) this is of interest for the design to come up. Furthermore, in my opinion, cultural heritage is less appropriate to use as a focal point as they are fixed points instead of precise and strategically located thought-off locations in the urban fabric.

In a later section, I explained how Urban Acupuncture still can play a role in strengthening urban identity by working as a framework to locate the proposed interventions in the urban context. I want to stress here that this is not directly based on scientific research (as there isn't any), but on my own attempt to relate both the concepts of urban identity and Urban Acupuncture and so give an answer to the main research question of this MSc-thesis. Although I do not wish to detract what has been said so far on the links between both concept, I want to conclude the theoretical framework by emphasizing that ultimately Urban Acupuncture is (just) a belief that little things can make big differences and also a choice to deal with a problem in a different way. The concept helps to narrow down, focusing on locations in the urban tissue where little changes can have a bigger effect beyond the scale of the actual intervention - in this case reinforcing the identity of the city.

Site context

7



This chapter is at the basis for the design discussed in the following chapter and is a further investigation of Rotterdam's context but on a much smaller scale than earlier in this MSc-thesis. At first, I will introduce the selected location. Hereafter, I will discuss the most common problems and its identity. Then, I will propose a zoning for this connection and investigate where acupunctural interventions are needed the most. Before I will come to a final conclusion, attention is paid to the staircases along the water which are, I believe, the hidden gems here.

7.1 Introduction

Although there seems to be many locations in Rotterdam's inner-city where Urban Acupuncture could be helpful to reinforce the identity of Rotterdam, there is one in particular: Haagseveer-Rederijstraat (figure 7.2). This series of streets (from north to south: Haagseveer, Westewagenstraat, Keizerstraat, Posthoornstraat, Glashaven, Rederijstraat) runs all the way down from just outside the city's centre to the Maas in the south. Also it's the only connection which does not coincides with one of the main roads. Furthermore, it's one of the quickest routes if one wants to get from the centre to the Maas, but as it's situated in the shadow of Rotterdam's core centre (outside the main shopping areas) hardly anybody knows. Besides, according to the municipality it is also seen as one of the many unattractive routes in the city's centre (municipality Rotterdam & OKRA landschapsarchitecten bv, 2009) and as there is hardly anything of interest to see (except for Laurenskerk ('Laurens church'; figure 7.1), Dudok and to-be-built City Office), it's no wonder this connection is neglected by almost everybody around.

It shouldn't also come as a surprise that the Haagseveer-Rederijstraat is amongst the six selected space programmes ('how do we do it') by Gehl et al. (2007) in his study 'Public Spaces - Public Life. Rotterdam.' Here, two out of the six problems distinguished on the scale of Rotterdam are prominent, namely anonymous public spaces and neglected waterways. These problems are also part of my analysis on the scale of Rotterdam and thus needs to be solved here. Interestingly, according to Gehl *et al.* visual pollution is not a problem along this connection but regarding the waterways I definitely believe it is (figure 7.7). It is part of one of the multiple problems regarding the waterways. Furthermore, Gehl *et al.* focus on unifying a disintegrated street, which will also be one of my main goals for this sequence of disconnected streets. A final problem I have distinguished here and not identified as such by Gehl *et al.*, is the impoverishment of this districts in direct comparison with the rest of Rotterdam's city centre. I believe that with the help of Urban Acupuncture these particular areas can be regenerated.



Figure 7.1: The famous Laurenskerk

To focus on this connection thus seems to be logical. Also, as water is the recurrent element along this connection, I do believe it's the waterways that can give this sequence of disconnected streets the strong identity it needs to have to be recognized as part of Rotterdam's connections between the city's centre and the Maas. As it has many advantages over the other routes in downtown Rotterdam (the distance, the lack of a main road running parallel, the presence of the waterways), the need to be an integral part of this network is evident. How to succeed in this one can read in this chapter. However, without prejudging the issues, I believe that by focusing on these water-related problems other problems will subsequently be solved. By celebrating the waterways and so restoring the disbalance between the identities of Rotterdam's city centre, the Haagseveer-Rederijstraat can be effectively upgraded.



Figure 7.2: Haagseveer-Rederijstraat in Rotterdam's city centre (adapted from Bureau Binnenstad, 2011)

-  Finished before 2011
-  Multi-annual programme public space 2011-2014
-  Reserve multi-annual programme public space
-  Take on after 2014

7.2 Problems

Although already pointed out in the introduction of this chapter in this section I will now discuss the several problems of this connection more in depth. On the map on the right (figure 7.4) it is shown what the specific problems of this district are and on the next pages some of the major problems distinguished here are illustrated as well as summed up and shown on a more general map (figure 7.11). A vision map (figure 7.12) is included to show what's need to be focused on in the future.

The first major problem is that this almost straight connection from just outside the city's centre of Rotterdam to the Maas is now a disconnected sequence of streets as the disintegrated parts have no common identity. As Gehl et al. (2007: 132) puts it: 'there is little visual coherence and nothing that binds the parts together'. Furthermore, the main road Blaak (figure 7.3) dissects this connection in two separate parts (Laurenskwartier and Waterstad) and both Pompenburg in the north and Boompjes in the south are major traffic barriers.

The second major problem involves the many (small) anonymous public spaces along this connection. They are undifferentiated, have no distinctive character and - as a result - are under-utilized (figure 7.5). Gehl et al. (2007) point out there is a lack of a unifying urban design for these so-called 'pocket spaces', adding up to this lack of continuity and legibility along this connection. While the municipality recently redeveloped several squares, like Vlasmarkt and Groote Kerkplein, and some boulevards, still many, mostly left-over spaces, lack a clear profile. A further upgrade is thus needed.

The third major problem is the neglect of the waterways right along this sequence of streets. Despite it being a valuable asset, it's mostly hidden, polluted (both litter and algae; figure 7.7) and inaccessible due to parking along. Over the years, buildings have turned their back towards the water as the canals and harbours no longer had a function (figure 7.8). So far, these water problems are identical to those on the scale of Rotterdam. A further problem here, related to the previous problem, is the indifference towards the staircases towards the water. A missed opportunity, I believe, to regain the historical connection with the water. Although things are changing now, these anonymous spaces still hardly get attention (figure 7.6).

The fourth problem is impoverishment, further divided into poor maintenance and vacancy. Poor maintenance not only of the many post-war reconstruction buildings in this district, but also some public spaces are of poor quality (figure 7.9). Furthermore, several buildings have been vacated recently (figure 7.10).



Figure 7.3: **Four-lane main road Blaak**

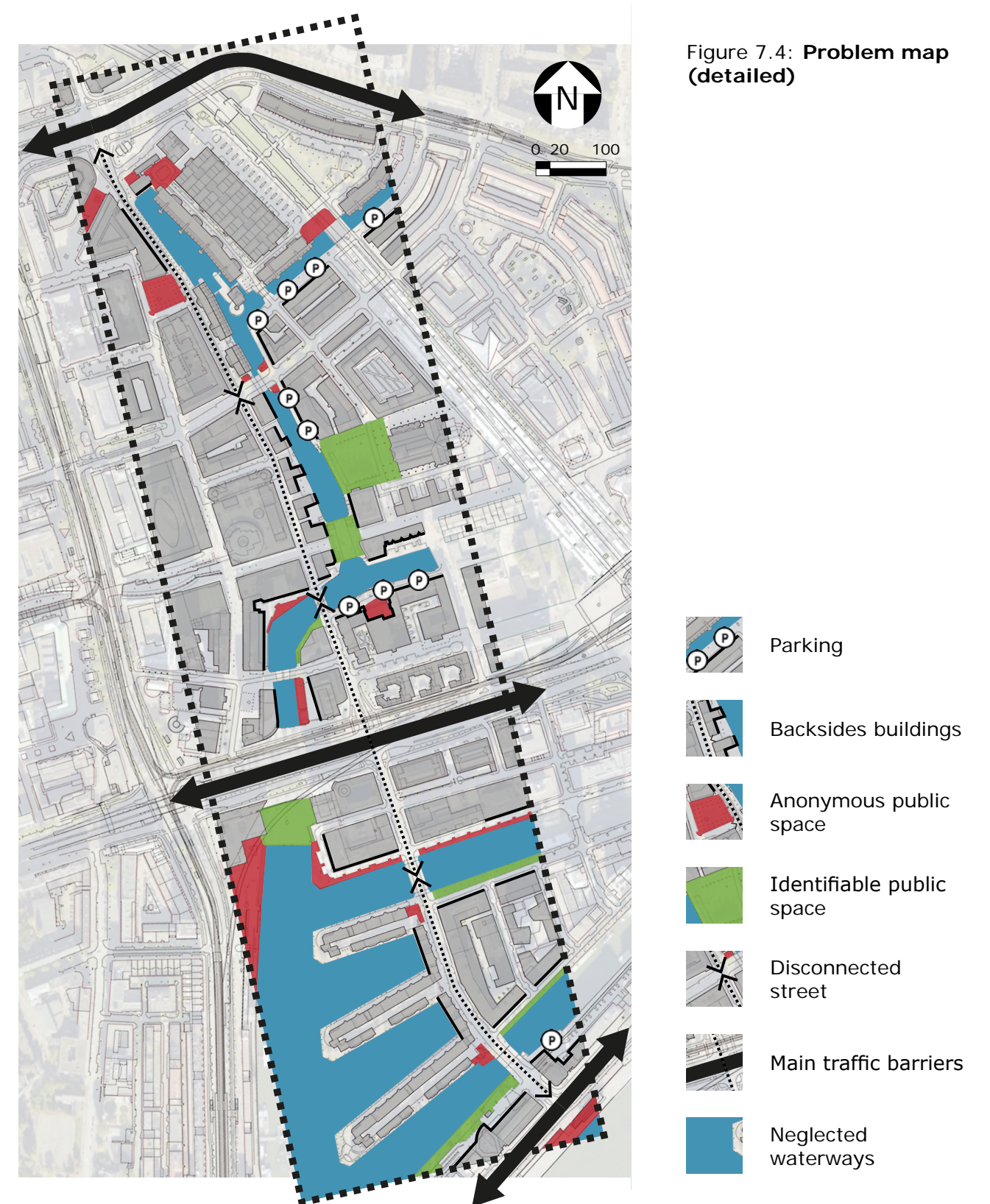


Figure 7.4: **Problem map (detailed)**



Figure 7.5: **Anonymous spaces - no distinctive character**



Figure 7.6: **Anonymous spaces - under-utilized**



Figure 7.7: **Neglected waterways - pollution**

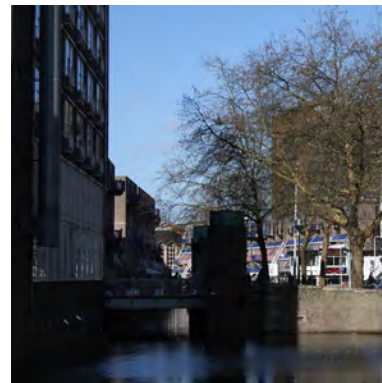


Figure 7.8 : **Neglected waterways - backsides**



Figure 7.9: **Impoverishment - poor maintenance**



Figure 7.10: **Impoverishment - vacancy**

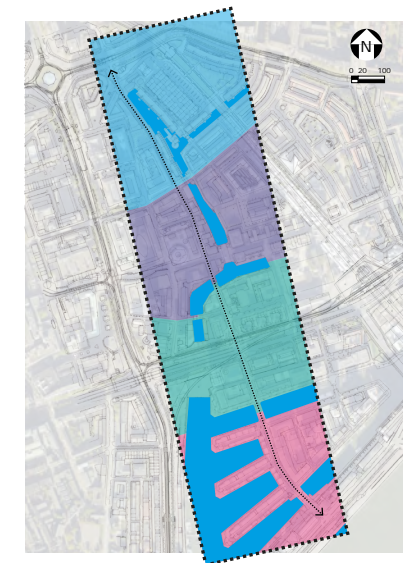
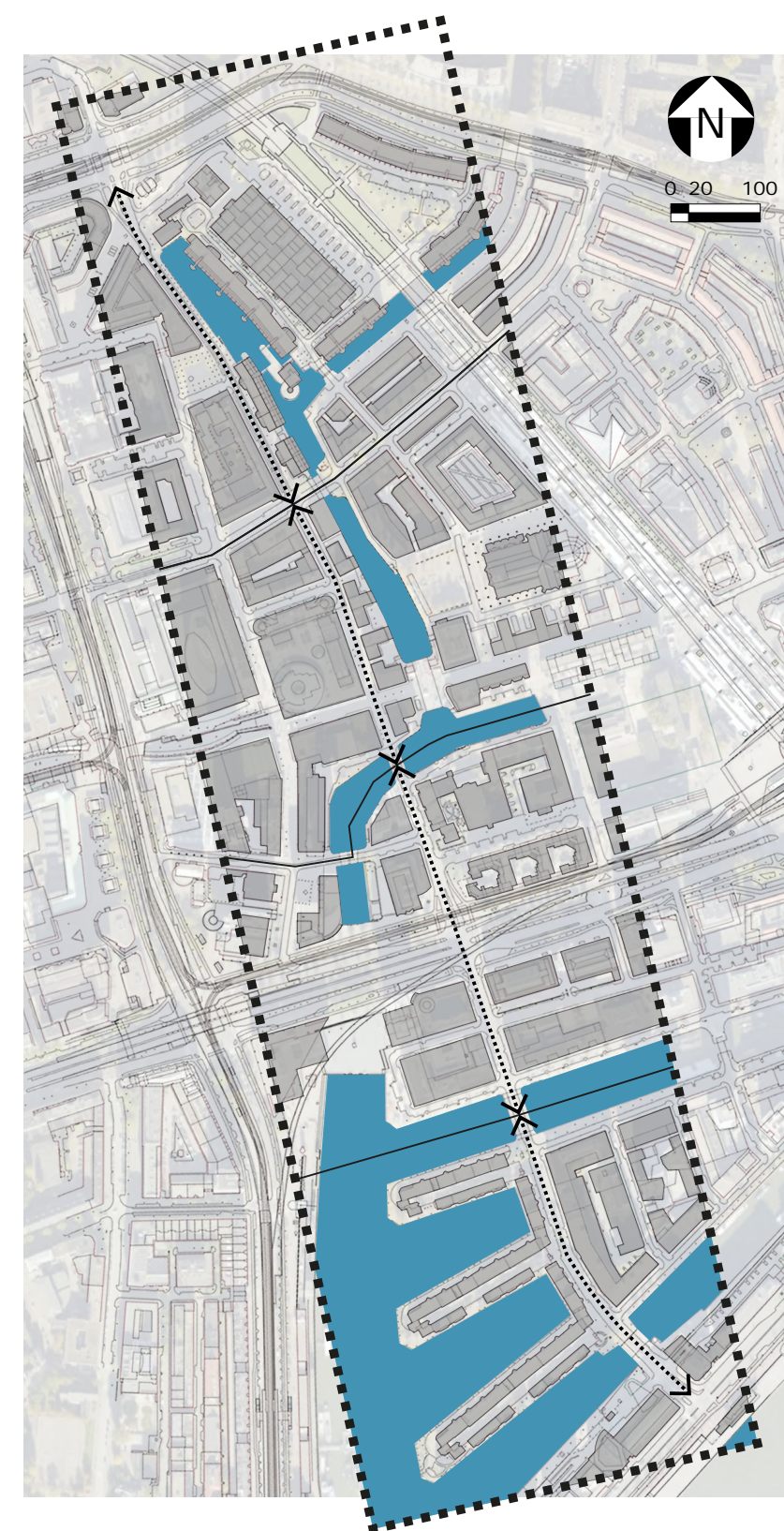


Figure 7.11: **Problem map (left)**

Figure 7.12: **Vision map (above)**



7.3 Identity

Although in one of the previous chapters I have extensively paid attention to the three identities of Rotterdam's city centre (port of Rotterdam, post-war reconstruction and skyscraper city) and this being the main focus in this thesis, it's interesting to explore which areas of this sequence of streets already have a distinct character and which don't. Furthermore, it is of interest to determine where these distinguished identities are to be found along this connection.

Regarding those three identities, it's mostly the first two that can be perceived and experience along this connection. With this connection being positioned just outside the city's centre, most of the skyscrapers in the city are located more to the west. An exception being the area west of Keizerstraat, where the skyscraper of Fortis Bank (106.25m; figure 7.13) dominates the sky. The post-war reconstruction identity can be clearly felt all along this connection, as many post-war reconstruction buildings are located in this district. However, some of them are badly maintained and need to be upgraded. Others, like those east of Westewagenstraat are very typical (1960-1965; figure 7.14) and contribute to the distinctive character. Also the two buildings south of Blaak (1940-1950; figure 7.15) are unique and identifiable elements.

The latest identity, the port of Rotterdam, is present too - being the main reason to focus on this particular connection. However, despite its many water along this connection (including Waterstad) and thus the potential to restore this lost identity, no attention have been paid to them in years. Still many distinctive elements, like the Regentessebrug (Regentesse Bridge; figure 7.15) or the bright red lightship (figure 7.17), add up to the genius loci of these places. Being a past reference, these element are important regarding place-referent continuity. In this respect, of equally importance - but not port-related - is Laurenskerk (figure 7.1) which is also both a radial landmark and external point-reference. Besides, due to their important roles in Rotterdam's history, these elements hold narratives, meanings and feelings - also adding up to the sense of place. Also an element like the City Gate Monument (figure 7.18) - although a reference - helps to do so.

Taking into account the social aspect of urban identity, one should also address uses and activities. Interestingly, the area (or core) where most activity takes place along this connection - Westewagenstraat - does meet all the requirements of Jacobs (1961) to stimulate use and activity in cities: mixed primary uses, small blocks, variety of buildings types, ages, sizes and conditions and concentration of people. All this contributes to the area's character and adds to its distinctiveness.



Figure 7.13: **The skyscraper of Fortis Bank**



Figure 7.14: **Post-war reconstruction buildings (Westewagenstraat)**



Figure 7.15: **Post-war reconstruction buildings (Blaak)**

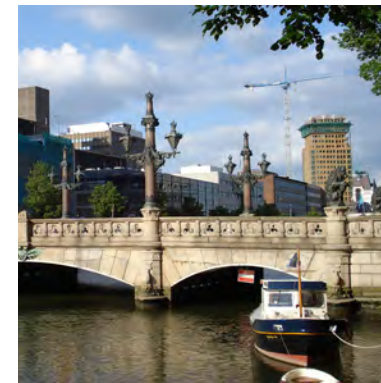


Figure 7.16: **The Regentesse Bridge**



Figure 7.17: **The lightship of Rotterdam**



Figure 7.18: **The City Gate Monument of 'Nieuwe Delfse Poort'**



Figure 7.19: **Vital social life (Westewagenstraat)**



Figure 7.20: **Red zone (Glashaven)**



Figure 7.21: **Orange zone (Keizerstraat)**



Figure 7.22: **Green zone (Westewagenstraat)**

7.4 Zoning

In the chapter on Rotterdam's urban context I pointed out the problem of unattractive ground floor frontages as many of them in Rotterdam are passive/closed, monotonous and over-sized instead of being active/open, heterogeneous and in proportion (Gehl et al., 2007). In order to get to grasp this connection a little bit more and to see where Urban Acupuncture is most needed, I analysed the level of interaction between buildings and the streets involved and along the waterways. Furthermore, they help to address the social aspect of urban identity as this interaction is part of the level of involvement - a social tool to strengthen urban identity.

From the map shown on the right (figure 7.23) a few things become clear. In the first place, there are hardly any active ground floor frontages facing the canals or harbours along. This is line with what has been said in the subchapter on the occurring problems along this connection, that is over the years buildings have started to turn their backs on the waterways. In the second place, there is a high concentration of active ground floor frontages in the middle of the connection. Furthermore, there are also more outdoor serving areas here which connect buildings and street. In the third place and in direct contrast with this, the ground floor frontages at both ends of the connection are predominantly passive and outdoor serving areas are almost lacking completely.

Based on this, it is possible to divide this connection into four different zones: two red zones, an orange zone and a green zone (figure 7.24). The two red zones are to be found at both outer ends of this connection, where monotonous, unattractive and passive front passages result in almost no public life. Also, due to the monofunctional character of both areas - mostly housing and offices. In the case of the northern red zone (Haagseveer), backsides of buildings are typical of this area. In the southern red zone (Glashaven/Rederijstraat; figure 7.20), the many vacant buildings stand out. In between the green and southern red zone, an orange zone can be distinguished in which a mix of monotonous and diverse facades is to be found as well as both active and passive ground floor frontages. Besides, in this area a few outdoor serving areas result in some public life (figure 7.21). However, still some vacancy is to be found in this area. The last zone, the green zone, has varied facades, many active ground floor frontages and outdoor serving areas and a multifunctional character (figure 7.22). It's here where most public life takes place along this connection and - to a lesser extent - in the orange zone (mostly north of Blaak). Therefore, an upgrade of the green zone is not needed and thus interventions along this connection have been positioned in both the orange and red zones.

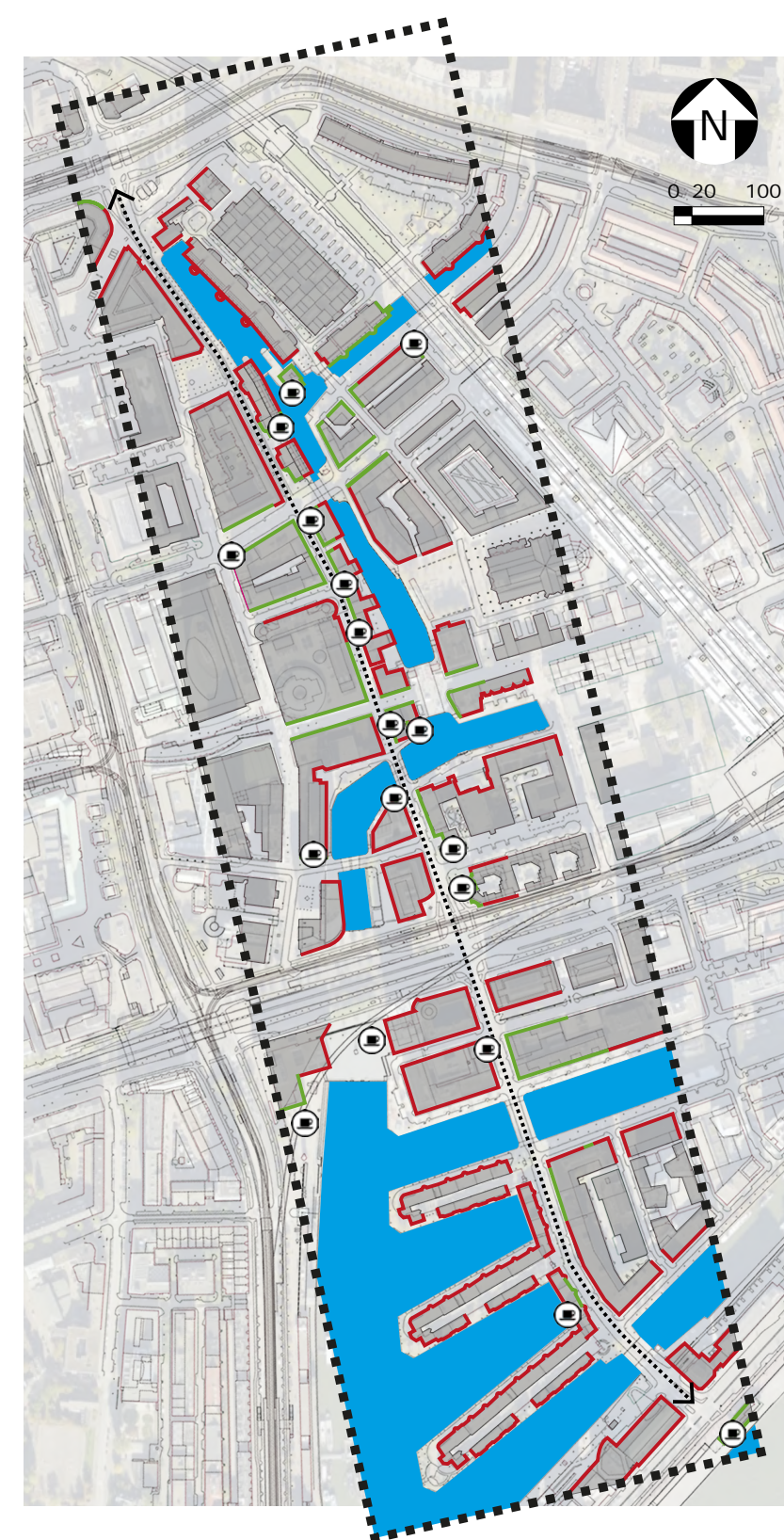


Figure 7.23: **Interaction street-level map (left)**

Figure 7.24: **Zoning map (above)**

-  Outdoor serving area
-  Passive ground floor frontage
-  Active ground floor frontage
-  Haagseveer-Rederijstraat

7.5 Urban Acupuncture

In the previous subchapters I have discussed the specific problems of this connection, but have not yet paid attention to how these can be properly addressed in a more general way. I believe one can deal with these problems in three different ways, that is: one can upgrade the district in total, upgrade the street(s) or upgrade particular spots along this connection, for example certain public spaces (figure 7.25). In my opinion, it depends on the number, type and severity of the problems of an area which model can best be chosen to work with. In this thesis, taking into account the topic of Urban Acupuncture, model 3 is taken as a method to solve the district's problems.

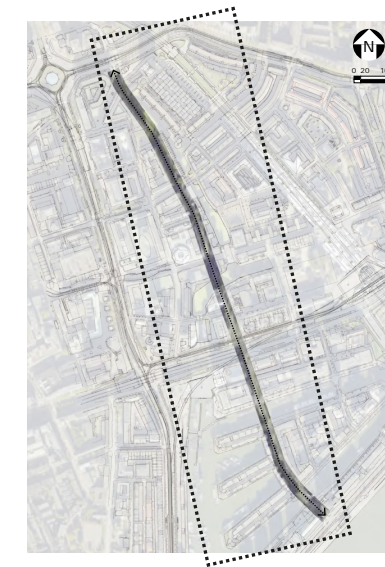
Within model 3, I believe, there are three more general models to be distinguished (figure 7.26). In the first model, the interventions are placed on the border of the areas, hoping they work their way towards the centre of the district. In the second place, it's the other way around. Placing them in the middle, hoping they spread out towards the outer borders of these areas. In the third model, models are combined. Interventions are placed both on the borders and in the centre, hoping their adverse effect will spread out over the areas in total.

Note that the number of interventions differs amongst these models. In the first model, where interventions are placed on the border and assuming that either the orange and both red zones have to be addressed, five interventions are needed. One of these interventions, placed on the border of the orange and the red zone, has a double role as it serves both these zones. In the second model, only three interventions are needed - each in the centre of the zone. In the combined, third model, eight interventions are to be done to have the hoped for effect. In my opinion, choosing for the latter model means to play it safe. In the second model, the interventions have to be very convincing as they are the sole intervention to be done to upgrade the zone. The area to be served by one intervention is bigger than in both other models.

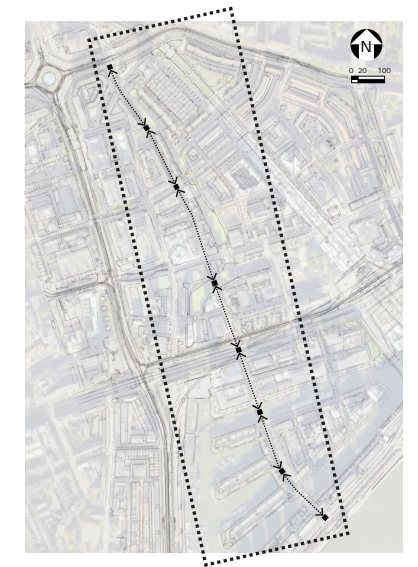
Though hard to scientifically underpin these distinguished models, in this regard the work of Bentley *et al.* (1985) talking about 'marker sequences' is interesting, as they proclaim 'in some situations (curved streets, author) (...) intermediate markers are needed (...) to give a sense of going somewhere' (1985: 55). Importantly, these should be sited to be visible from each other (figure 7.27 on next page). By doing so, a continuous chain of markers will be formed so to achieve a legible street. These markers have to stand out visually by their surroundings, for example by their height, colour or material. This will also add up to the identity of both the connection and the centre.



Model 1: **Upgrading the district**



Model 2: **Upgrading the street**



Model 3: **Upgrading particular spots**

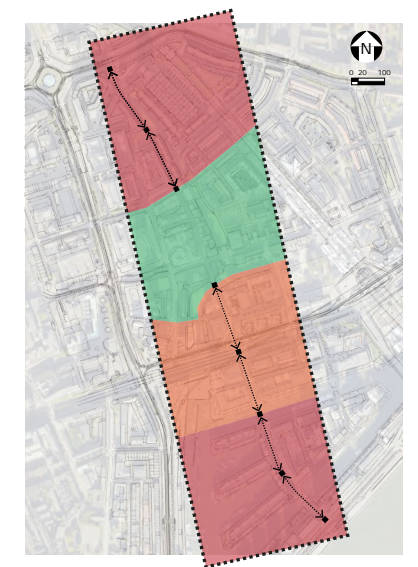
Figure 7.25: **Upgrading a connection**



Model 1: **From the outside to the inside**



Model 2: **From the inside to the outside**



Model 3: **Both the inside and the outside**

Figure 7.26: **Outside vs. inside**

Elaborating on this third model of figure 7.19 (upgrading particular spots) and already pointed out earlier in this subchapter, the similarities between this model and Urban Acupuncture are obvious. Also, in Urban Acupuncture, the upgrading of particular spots in the urban tissue is proposed to solve problems on the scale of the neighbourhood, district or city. Besides, the focus is on individual and strategically placed small-scale interventions which will work as a catalyst for the immediate surroundings and beyond. In this particular case, this will help to perceive and experience this sequence of now disintegrated and disconnected streets as a whole without the need to upgrade the district and/or street in total. Urban Acupuncture is here used as a connector (figure 7.28).

To come to an end, two final remarks have to be made here. In the first place, one needs to realise that although figure 7.20 does seem to suggest interventions are placed either on the border or in the centre, while these models are just meant to illustrate where one can locate these interventions in a more general way. Thus, if after a thorough analysis it seems more plausible to position an intervention somewhere in-between the centre and the border, one should not hold on to strictly one of these models. Also, a combination of these models is possible. In the second place, Urban Acupuncture is used as a connector here as it - in line with the main goal of this thesis - will help to reinforce the identity of this connection, district and - finally - Rotterdam's city centre. What will ultimately be this connecting element one will read in the next chapter.

Figure 7.27: **A method to position intermediate markers** (adapted from Bentley *et al.*, 1985)

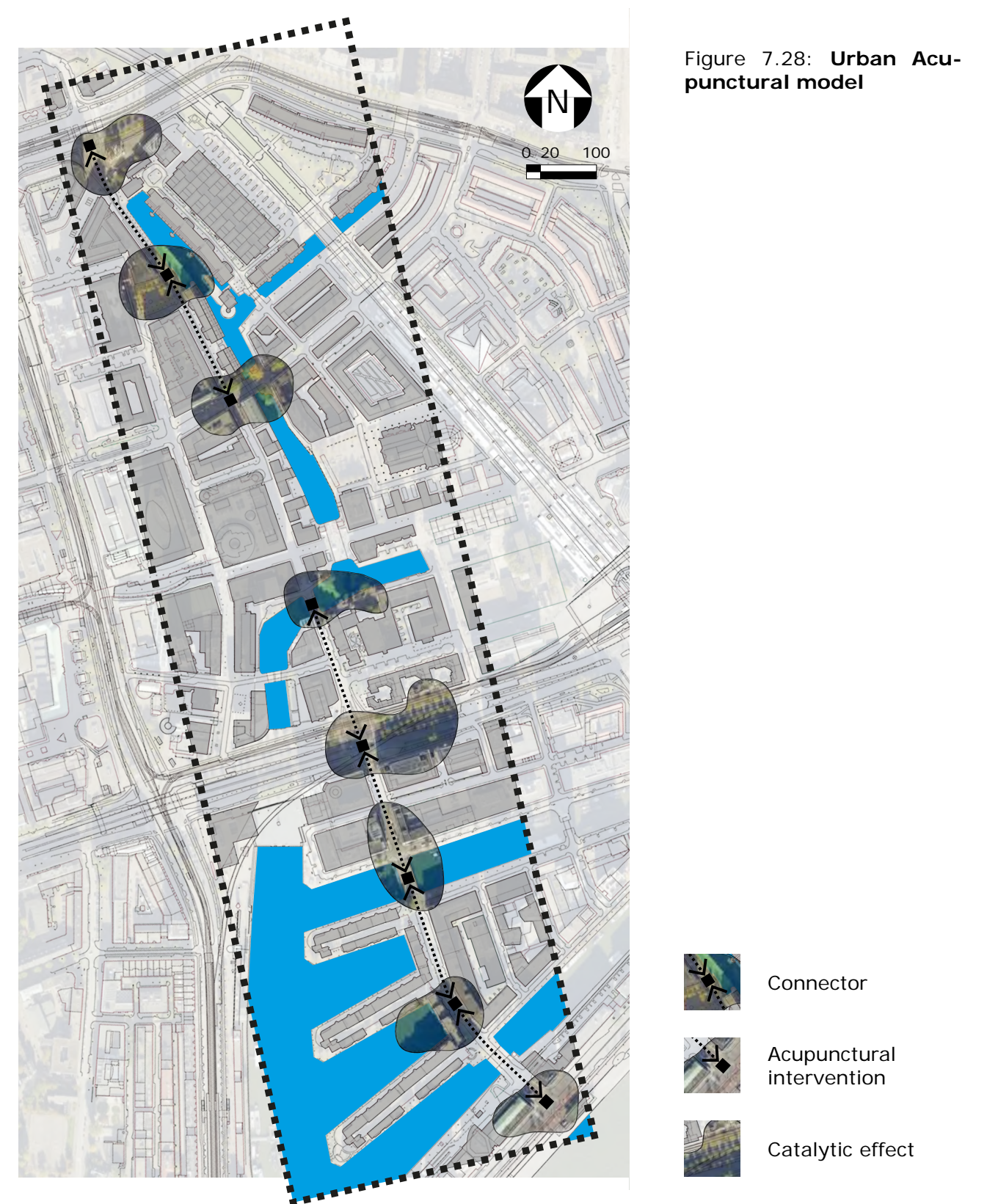
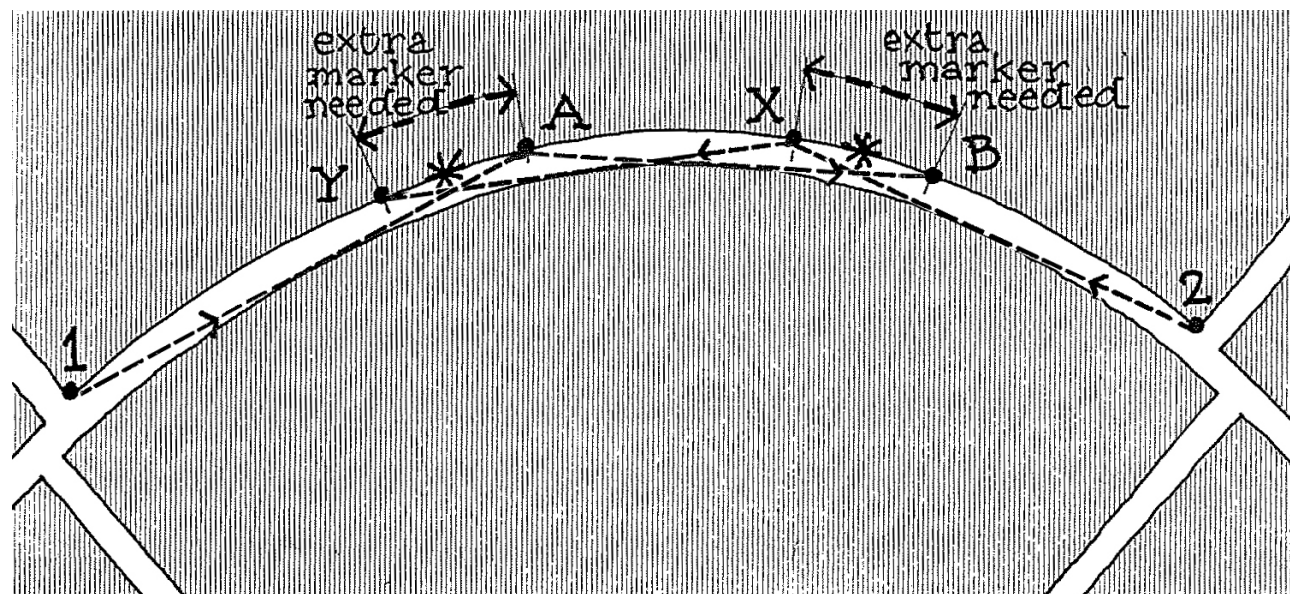


Figure 7.28: **Urban Acupunctural model**

7.6 Staircases

As already noted before: as water is the recurrent theme along this connection and as it has the potential to solve many of the problems in Rotterdam's city centre, these waters should have top priority. However, unfortunately, this is not the case. The stretch of water is probably the most neglected waterway in Rotterdam's city centre - already pointed out by Wentholt (1968) who proclaims Rotterdam shouldn't have turned the Delfsevaart into a rigid, ugly, pointless and discontinuous concrete 'drain' as it could also have been an eye-catching canal connecting the city with the Maas.

Before I will turn my attention on the hidden gems along these waterways, the staircases, it is of interest to know that just before World War II these canals were almost lost. Due to hygienic and infrastructural reasons, from 1840 onwards most of them were filled up (including Steigersgracht; figure 7.29) and the Delfsevaart only was a minor ditch and no longer a canal. If most of Rotterdam's city centre would not have been bombed, probably nowadays the water in Laurenskwartier would no longer have been there. However, in the post-war reconstruction plan of both Witteveen and van Traa, it was believed these waterways would play a major role in the supply of buildings materials and thus were substantially widened and provided with quays to make the handling of goods more easy (Toelichting Binnenstadplan, 1985. In: Urban Fabric, 2007).

Being part of the quays are the staircases along, which are open to the public and so people can reach out to the water. These are not only to be found along the canals, but also in the harbours of Waterstad. To be more precise, of those ten staircases along the water, four are bordering the canals and another six are in the harbours (figure 7.30) - those under tidal influence (figure 7.34). This means, at high tide they are partly obscured. Furthermore, five out of nine all located within a hundred meters from the connection - three of them even bordering one of the streets. If we look at them individually, each of them differ in size, height and orientation as well as platforms and number of steps (figure 7.31 - 7.34). This, together with the variety of materials used, results in a very different appearance of each staircase.

Although the potential is there to turn these staircases into something special, most of them are now being completely neglected and as a result turned into anonymous spots along the water which are badly maintained and of no use at all. However, in my opinion, these 'spots' can be seen as possible acupuncture interventions. Although many, if these spots are positioned at the appropriate pressure points to solve the problems is being discussed in the conclusion.



Figure 7.29: Filling up of Steigersgracht (1911)

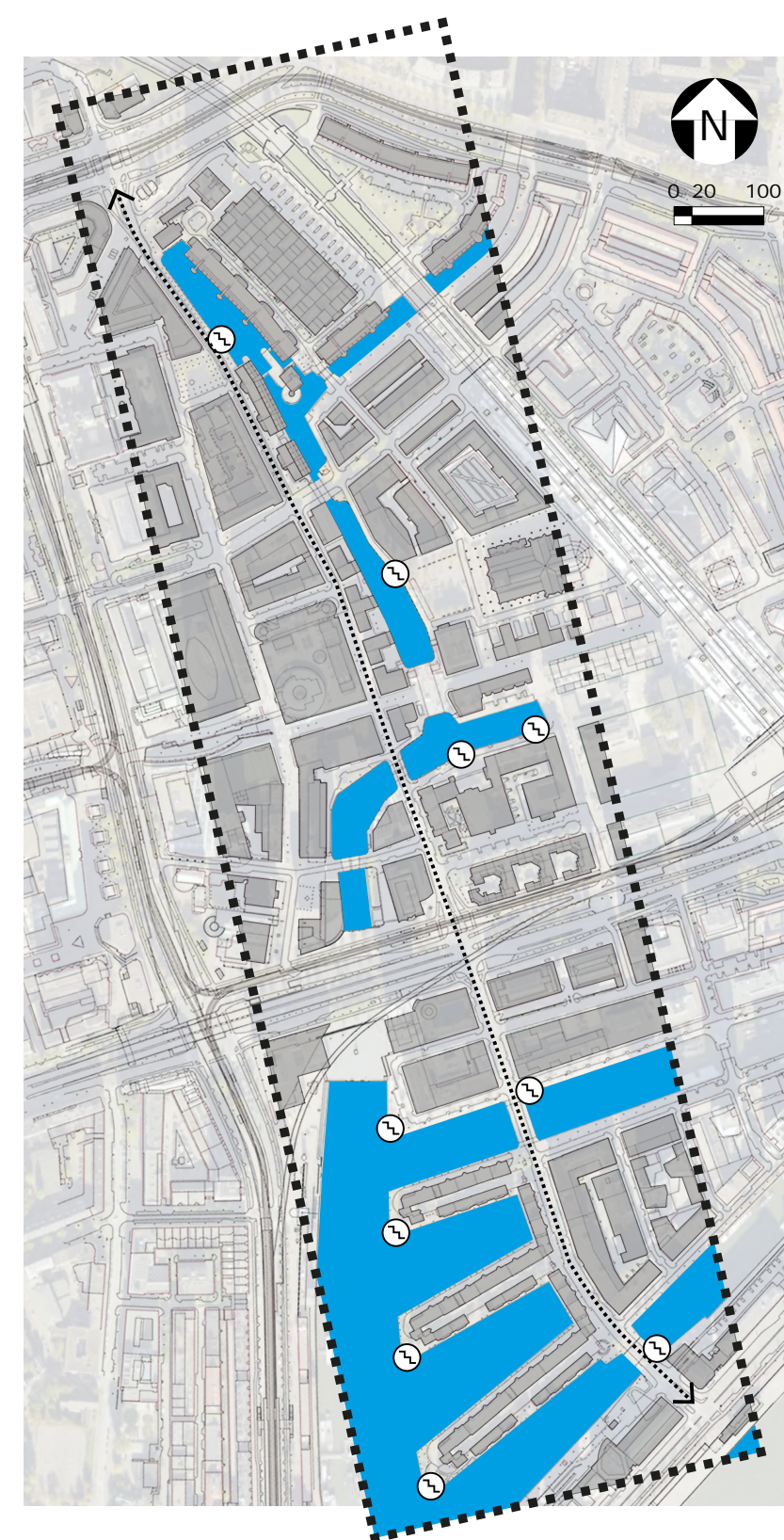
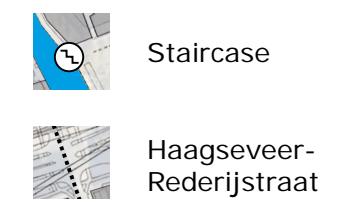
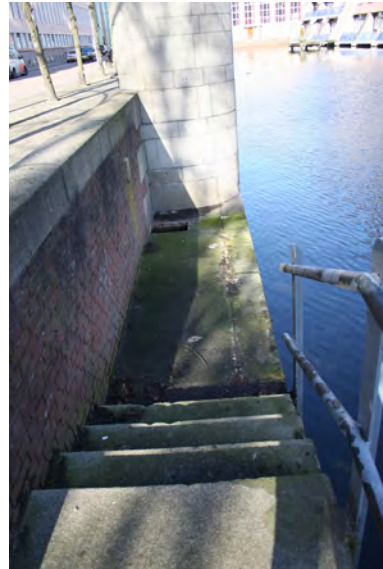


Figure 7.30: Staircases map

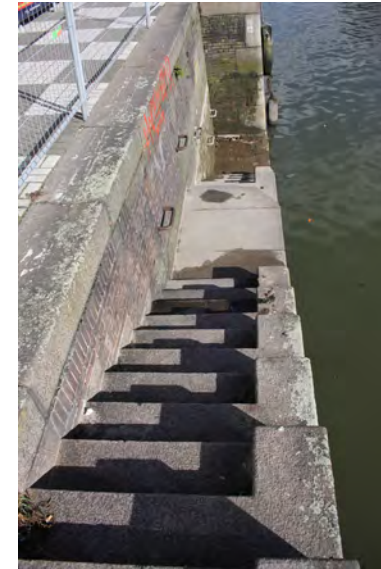
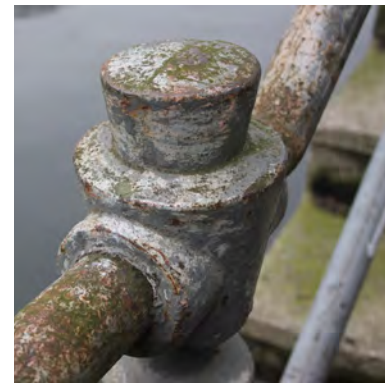




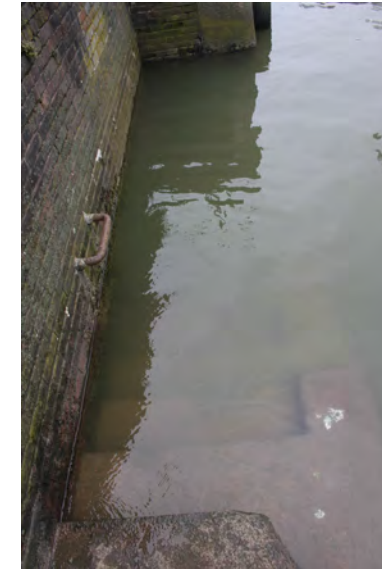
^
Figure 7.31: **Haagseveer**
Detail of quayside
v



^
Figure 7.32: **Hang**
Detail of railing
v



^
Figure 7.33: **Wijnhaven**
Detail of wall flora
v



^
Figure 7.34: **Wijnhaven**
Tidal influence
v



7.7 Conclusion

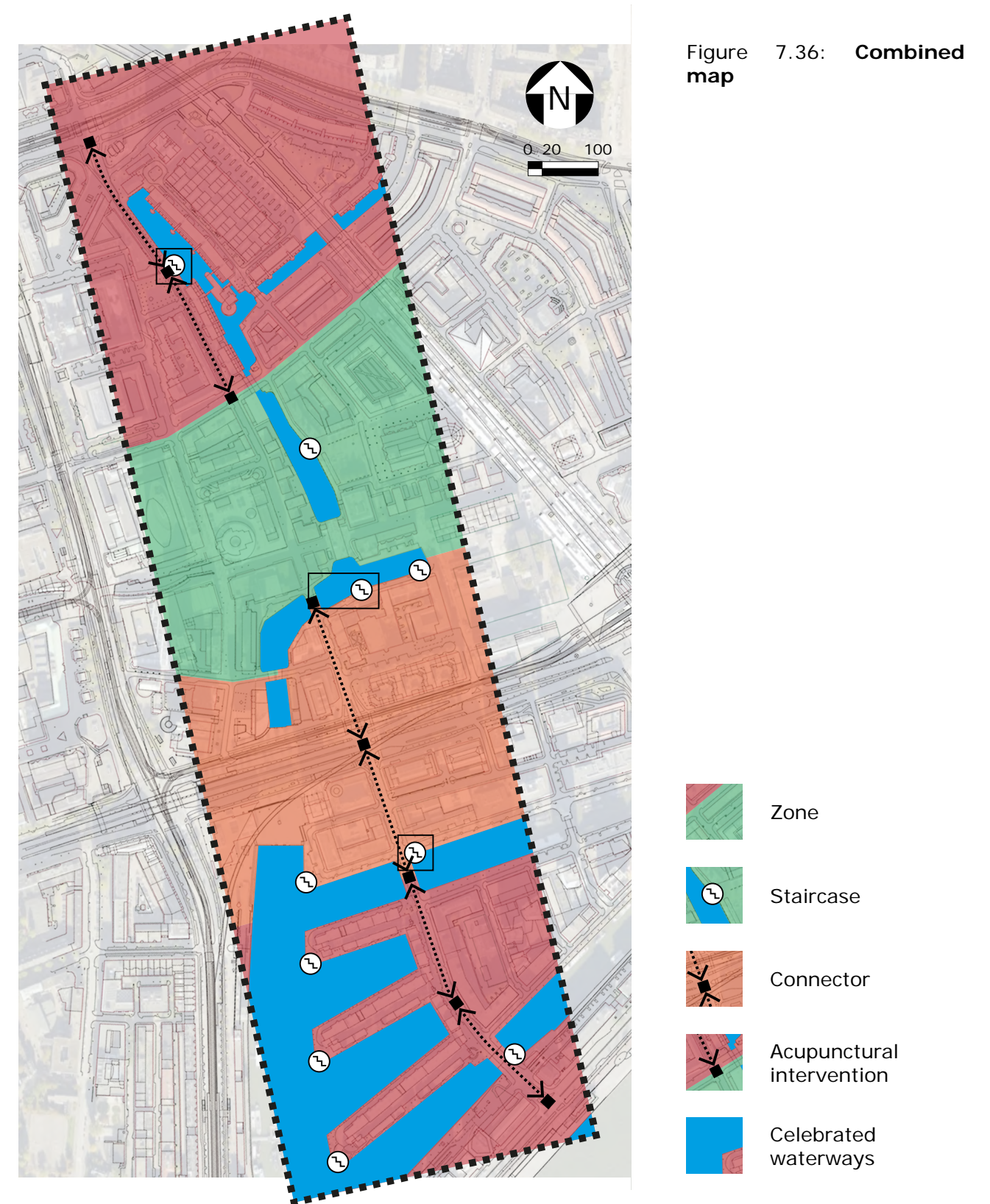
So far, in this chapter a few important conclusions can be drawn. Firstly, the connection and adjacent areas can be divided in four zones of which only three are in need of an upgrade and thus need to be regenerated. The green zone is where most public life takes place and where most identifiable and unique elements are which significantly contribute to the distinctive character of this zone. An acupunctural intervention therefore is not proposed here. Secondly, the water is the recurring element along this connection. Frequently, one walks along it, crosses it and ultimately meet the (Nieuwe) Maas (figure 7.35). If not visible, it's always nearby. The staircases right along offer the possibility to get in touch with the water, but aren't inviting though. The potential of the waterways is not recognized and they have been ignored until very recent. Thirdly, I have studied how one can intervene in the urban fabric and distinguished between three models. Although not final in their set-up, they help to think of possible locations for acupunctural interventions. The third model is figure 7.20 is taken as starting point here as this keeps most options open.

Interestingly, if one puts the associated maps on top of each other (figure 7.36), one will note that three out of nine staircases are located right next to possible acupunctural interventions. In the case of Haagseveer, the intervention is right in the centre, while in both the cases of Hang and Wijnhaven the interventions are to be located on the borders. The hang is at the border of the green-orange zone and thus will be only be serving the area south of that insertion. Although these positions (border-centre) are not fixed, the staircases are. I realize this does seem to be in contradiction with what's said before (about cultural heritage; see previous chapter), but in this particular case the most logical spots to intervene coincide with the fixed locations of the staircases. Also, I believe, intervening here is less sensitive than in other cases and historical value of these staircases is lower.

If the acupunctural interventions are to be successful, but without fully want to anticipate on the actual design discussed in the next chapter, it will not only help to bind the connection together on a horizontal level but also on the vertical level: connecting street and water, as it used to be in the past when the water still played an important role in the city's centre. By celebrating the waterways instead of consequently neglecting them, they can become part of the city's public space network. Furthermore, by means of the cumulative effect of Urban Acupuncture they will also help to regenerate the orange and red zones. Ultimately, taking into account both the physical and social aspect of urban identity, the actual design will also contribute to identity of the street, the district and the city.



Figure 7.35: Meeting the Nieuwe Maas



Design

00



8.1 Urban Aquapuncture

Elaborating on the last subchapter of the previous chapter, focusing on the staircases right along the water seems to be the right acupunctural intervention. A proper intervention here will not only result in a horizontally (the streets) and vertically (the water and the street) connected chain of streets, a regeneration of the 'bad' zones along and contribute to the identity of Rotterdam's city centre, but also will restore the lost identity of the port of Rotterdam and, by doing so and through the use of Urban Acupuncture (and effect), be able to - at least - solve some of Rotterdam's urban problems discussed in chapter 3. What to do and how this will result in the desired effects will be discussed in this and the conclusive section of the chapter on the actual design.

Most importantly, although the staircases offer the possibility to walk down towards the canals or harbours - once at the lowest platform, it's now just that and no more. Besides, they are cramped, badly maintained and (thus) dirty spots. No wonder they are now consequently overlooked by almost everybody. Therefore, they have to be made both visible and accessible for more people (figure 8.1). They have the potential to become public spaces with a distinctive character. However, to make these staircases part of the public space network in Rotterdam's city centre, as a start more space is needed. With no other options, this has to be on the water bordering the platform. Thus, it is proposed to locate pontons next to the staircase so that an artistic island is created. The actual intervention is thus on the water and therefore it's better to speak of Urban Aquapuncture. As these artificial islands will ultimately have to reinforce urban identity, they can't just be normal public spaces. Also, that not's in line with the modern spirit of Rotterdam, being surprising, playful and - above all - a city of innovation, creativity and experiment. But what else?

As a starting point for the design I took the proposed solution to solve the problem of being experienced as a cold and cheerless city, that is to arouse the 'City Lounge'-feeling. By this, the municipality now tries to bring back conviviality in the city's centre and in my opinion, by taking this 'City Lounge'-feeling literally, this offers an extra possibility to make very identifiable and unique public spaces. Inspirational examples of this can be found on the next page (figure 8.3-8.9). But, importantly, also taking into account the social aspects of urban identity, they can not only be awe-inspiring projects where nothing takes place - Rotterdam already is known to sometimes be a lifeless and deserted place (see chapter 3). Therefore, it should not be only special places, but also places which invite people to have a little chat with others, escape the busy city-life or just to enjoy the true 'City Lounge'.

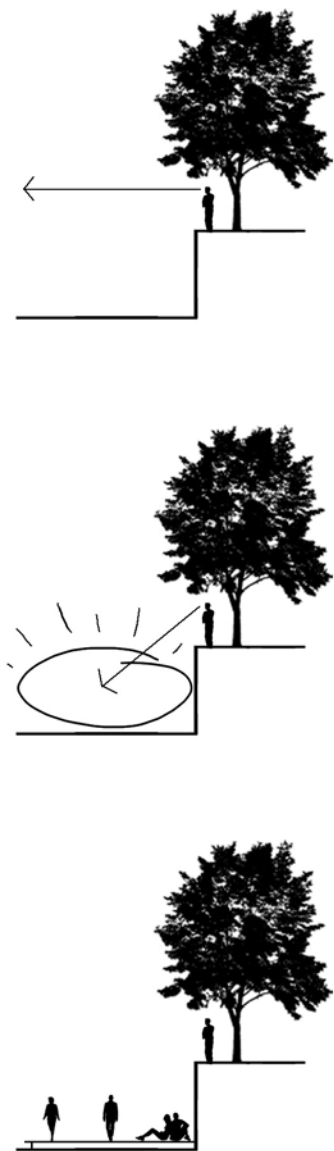


Figure 8.1: Concept principle

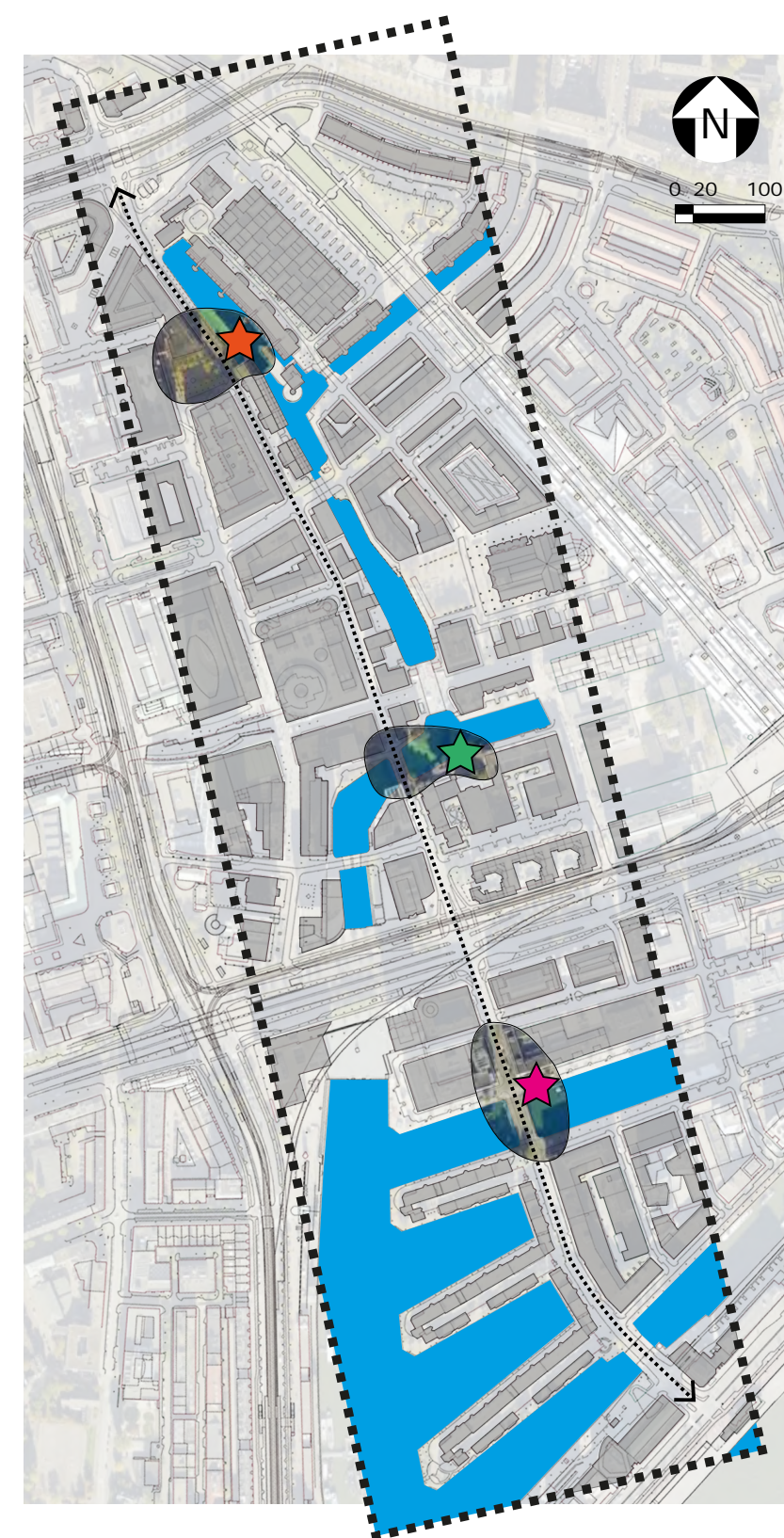





Figure 8.2: Concept map

-  Aquapunctural intervention
-  Catalytic effect
-  Haagseveer-Rederijstraat

All this is also very much in line with the many policy documents on Rotterdam's city centre, claiming that 'the port needs to be more touchable in the city's centre (and) this is done by adding a new meaning to the use and impact of the water, the river and the quays'. (Dienst Stedenbouw en Volkshuisvesting, 2007: 12) Now the potential of the water is not fully exploited which is a pity as it is the chance to come up with public space typical of Rotterdam. Interestingly, none of these ever mentions the staircases. Only in a cultural-historical study of Laurenskwartier (Urban Fabric, 2007), referring to a study called 'Waternet 1975/76' (Water context 1975/76), ideas like a walking jetty or flowering boats are mentioned and only for the Delfsevaart. Hereafter, these ideas - although Rotterdam decided to focus on their waterways - have seem to be neglected ever since.

In conclusion, it needs no further explanation why the harbours and canals - and most of all the stairways along it need - along the Haagseveer-Rederijstraat need to be upgraded, as reasons have been pointed out throughout several chapters of this thesis so far. From now on I will focus on the design and describe their current situation, the proposed intervention and the expected (or desired) results. Besides, every design will be illustrated by a plan of the design, one longitudinal section, two latitudinal sections and two more future impressions.

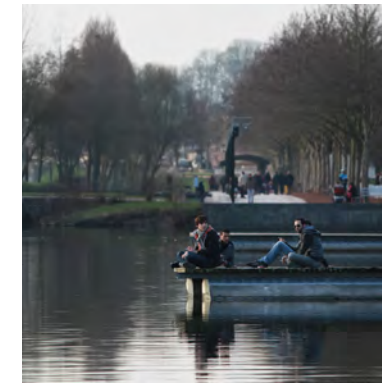


Figure 8.3: **Parc Saint Pierre (Amiens, France)**

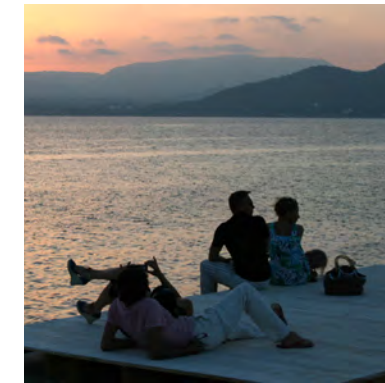


Figure 8.4: **Ponton at the lake (Salinas, Spain)**



Figure 8.5: **Ponton Concert (Goedereede, The Netherlands)**



Figure 8.6: **Terrace MediaHouse (Hilversum, The Netherlands)**

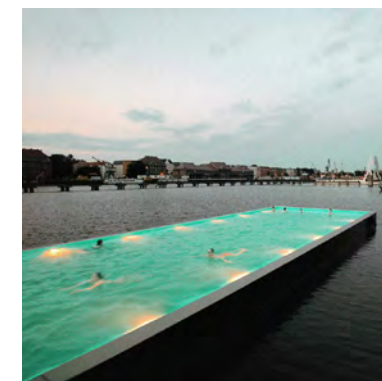


Figure 8.7: **Spree Bridge Bathing Ship (Berlin, Germany)**



Figure 8.8: **Hotel Laguna (Constanta, Romania)**



8.2

Haagseveer / 'The Living'

Current situation

This staircase is the most northern location along the connection Haagseveer-Rederijstraat. It is located close to the dead end of the Delfsevaart. The staircase faces the north-northeast, thus during most of the day the sun is in the back. Buildings aren't shading, except for noon and late afternoon. The staircase is easily accessible as it is part of the pavement. Compared to other staircases this one includes a separated wall and an engineering structure. As the wall is only 1.55m high, one can still overlook the street if standing on the platform. The staircase itself only consists of three stairs and a pretty big platform (4.2m²). A railing is along the staircase itself. Nearby is the backside of Rotterdam's police station, the future City Office (2012), the Raamplein and some dwellings and offices. At the other side of the water they are dwellings with some wooden platforms in front of them (figure 8.9). A big wooden platform can also be found just south of the location.

Proposed intervention

Here, an outdoor living ('The Living') is proposed. It's the gently sloping and textured plane that strikes the eye first. The silver-and-gold pattern of flowers is thus the main element. It's made out of rubber granulate. Placed right on top of this extraordinary urban landscape are baroque sofa's and lounge chairs where people can sit or lay down on, while watching short movies on for example Rotterdam's history on the screens placed on the walls of the buildings surrounding the island. Also the own art programme of the museum Boijmans van Beuningen in collaboration with RTV Rijnmond, Popov Movie and Ro Theater (Boijmans TV) will be broadcasted here. One will be placed against the engineering structure bordering the platform one enters the island and a second one will be installed on the blank facade of the residential building south of the island. In line with the artistic decoration, they are bordered by a silver of a gold frame. In this way these boring spaces are flourished up and a connection between the surroundings and the island is made. Light is provided by twilight lamps, placed next to the sofa's and lounge chairs.


Expected results

Being probably the most important with every acupunctural intervention, is that they have to be catalytic for the whole surroundings. Although hard to predict what the effect will be on the immediate environment plus the fact it is aimed at strengthening urban identity, here its hoped-for effects will be discussed. In this particular case, most potential offer the residential buildings south of the island - at the east-side of the Haagseveer. Currently, quite a few ground floor frontages of these buildings hardly make contact with the street and are closed and passive. Especially those close to the artificial island have the potential to become more active and open, for example as they can be turned into a restaurant or a cafe overlooking the outdoor living. As more people will come to see the island, it can be expected it will have economic viability. Also initiatives might be started to flourish up the now boring looking backsides of nearby buildings.

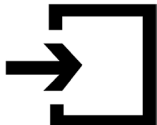


Figure 8.9: Panaroma view of Haagseveer (north-east)


Technical details

- 


General information

 - Size: 16.8m (l) x 8.4m (w)
 - Area: 137,76m²
 - Height: 0-0.75m
- 


Accessibility

 - Lowest (only) platform
 - Height difference: 0.30-0.34m
- 


Base plane

 - 16 pontons (2.1 x 4.2)
 - 0.5m under water; 0.23m above water
 - Slightly undulating
 - Silver-and-gold rubbergranulate
- 

Vegetation

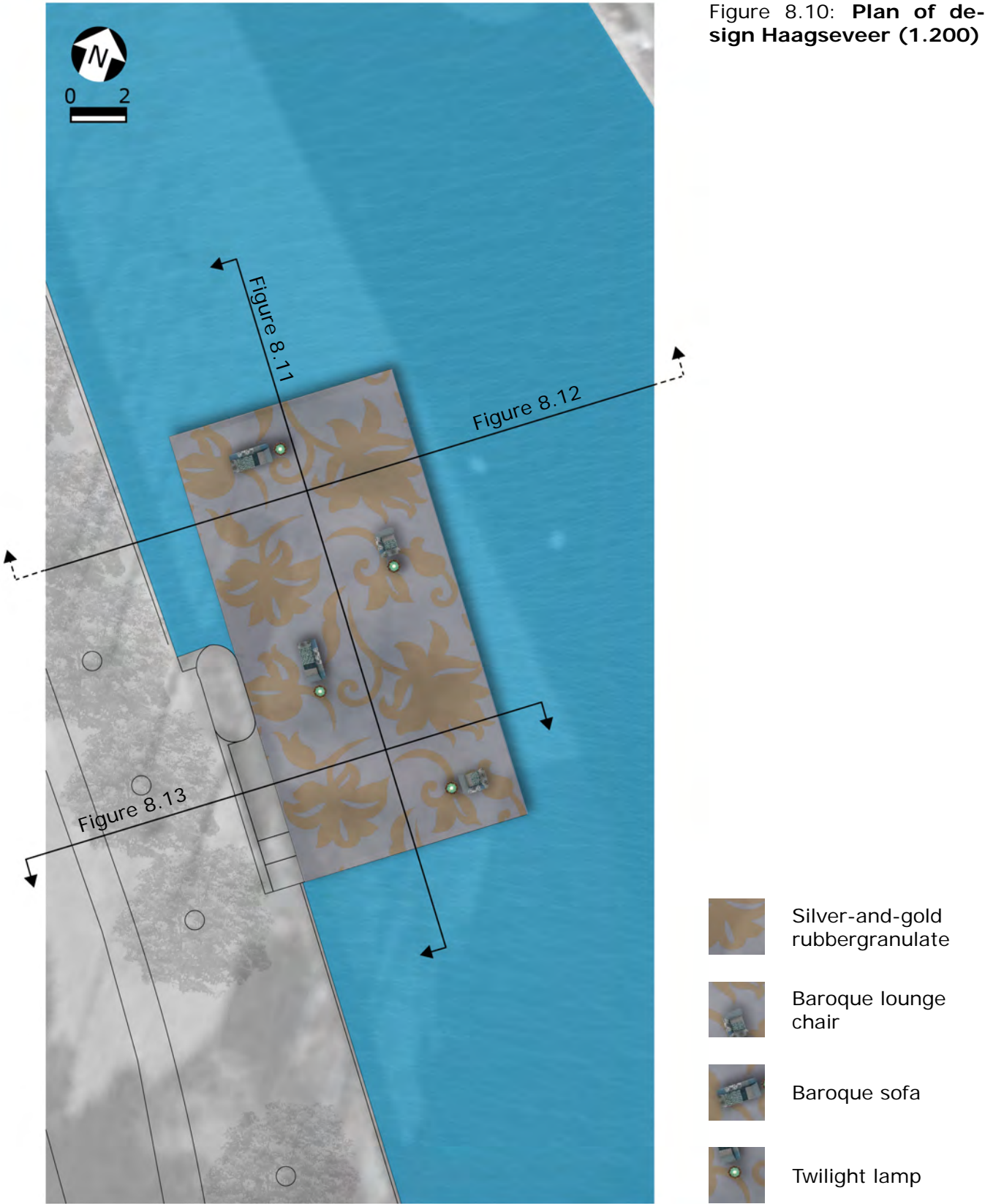
 - None
- 

Furniture

 - 2 baroque sofa's
 - 2 baroque lounge chairs
 - [other: 2 screens]
- 

Illumination

 - 4 twilight lamps



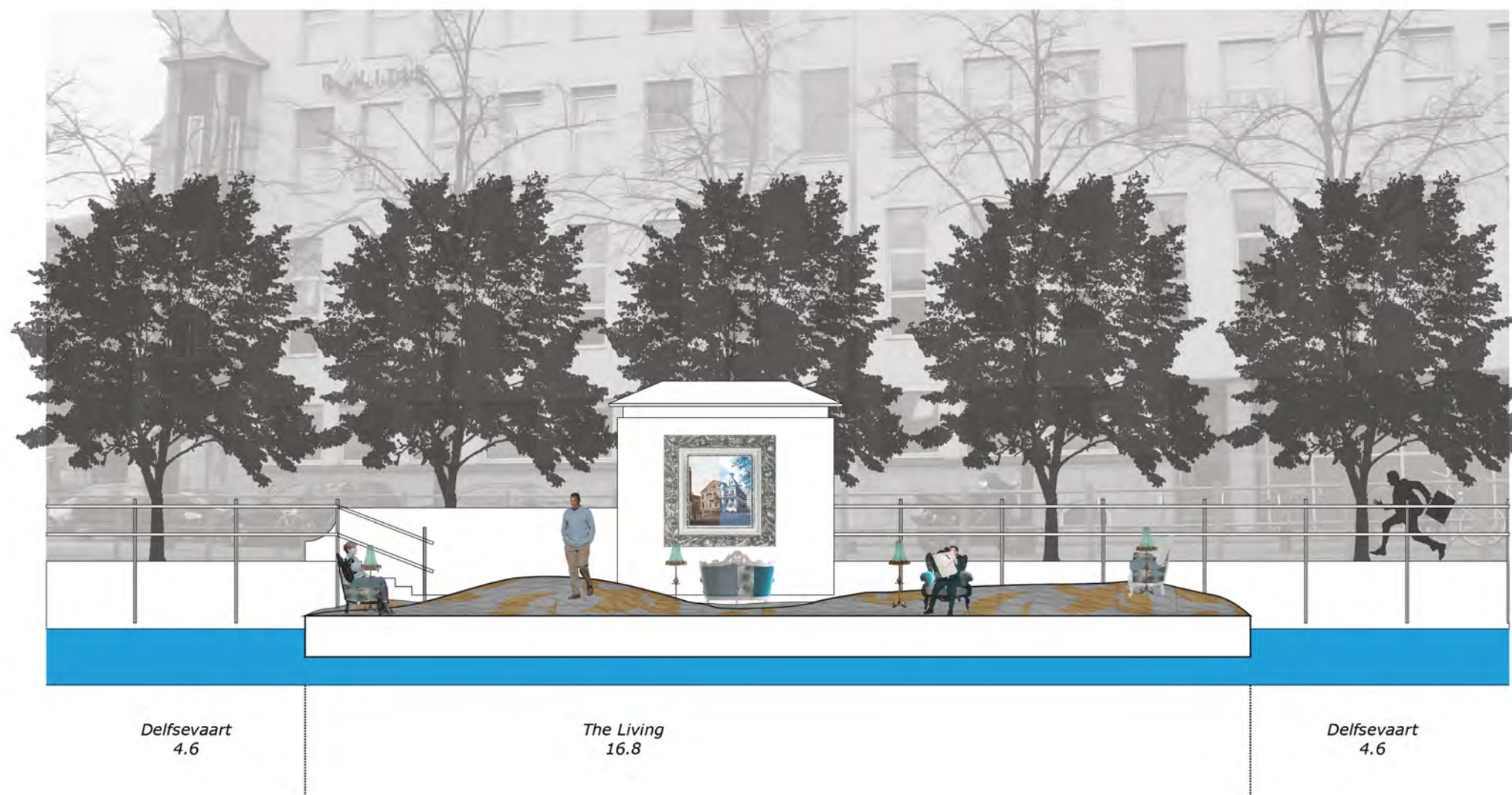


Figure 8.11: **longitudinal section (1.100)**

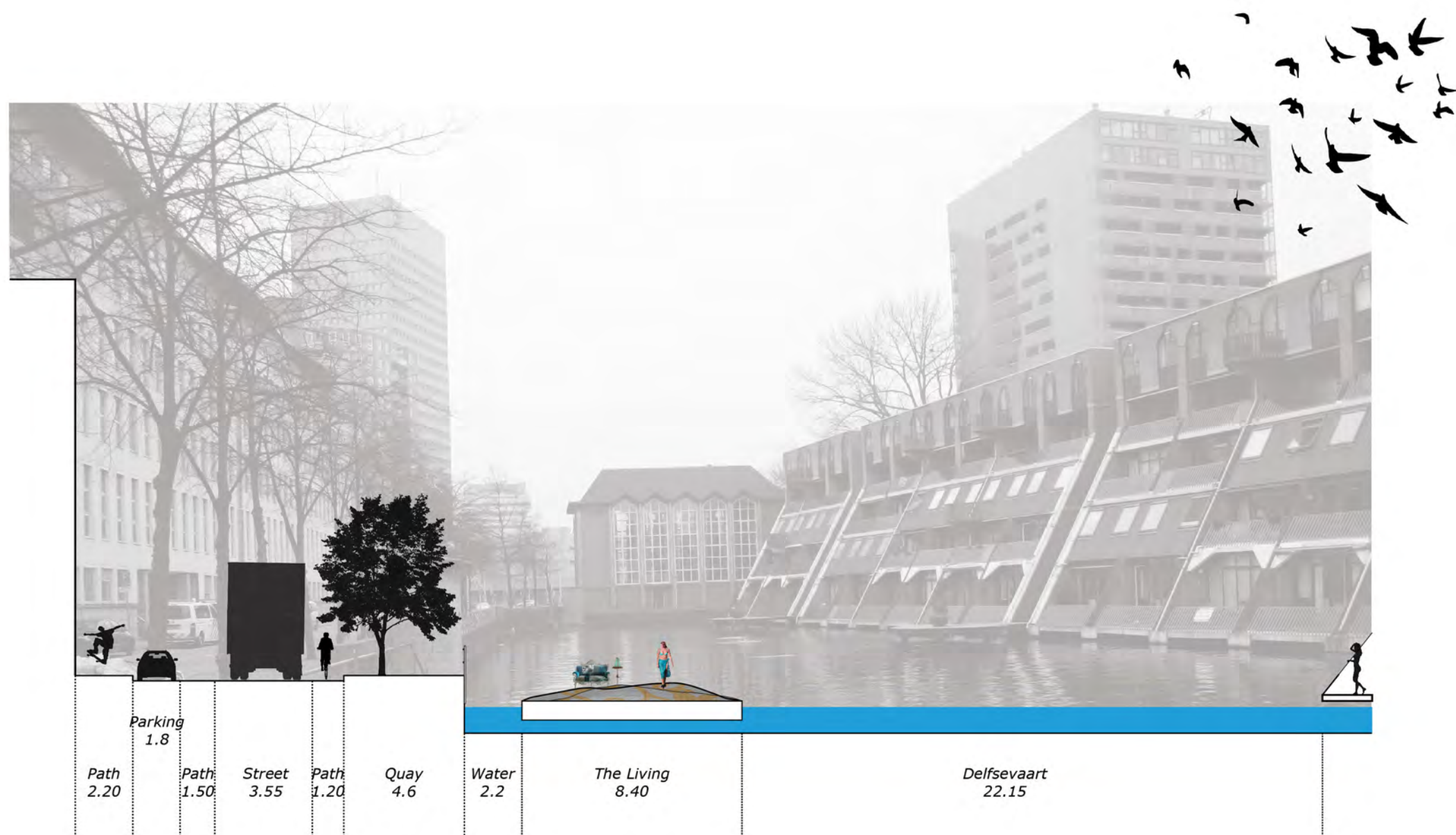


Figure 8.12: **latitudinal section (1.200)**

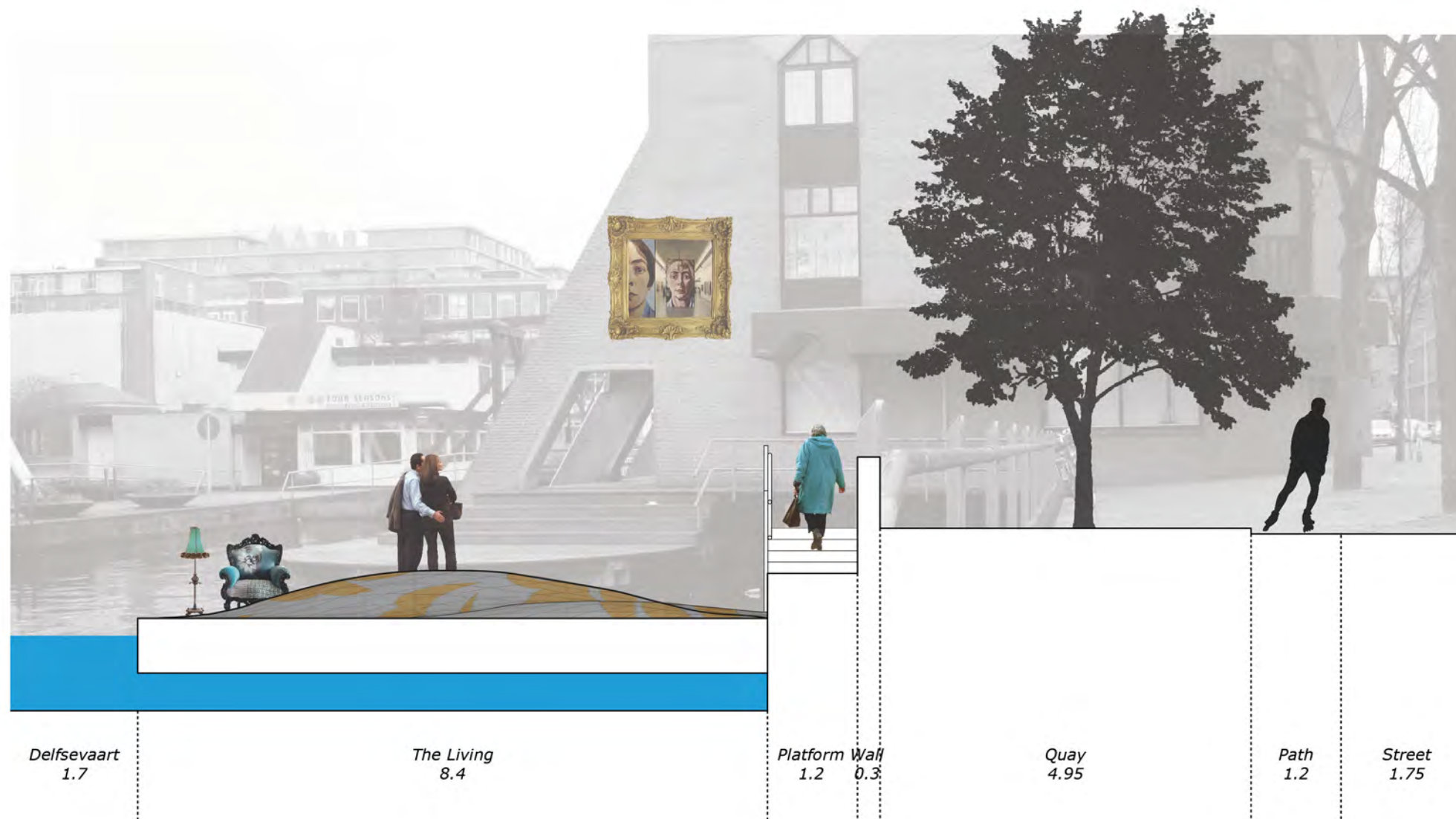


Figure 8.13: **latitudinal section (1.75)**



Figure 8.14: **Future impression from above (north-northwest)**



Figure 8.15: **Future impression from below (west)**



8.3

Hang / 'The Swing'

Current situation

This location is close to the Hoogstraat, one of the busiest shopping streets in Rotterdam's city centre. It is located at a T-junction in the Steigersgracht - north of the Vlasmarkt (middle bridge in figure 8.16) it is named Delfsevaart and to the east it's a dead end. The orientation of this staircase is westwards, so sun is in the back only in the early morning. During most of the day this location is shaded anyway due to a large chestnut tree nearby. This tree is blocking the entrance of the staircase. Further parking doesn't make it easy to access the staircase. A modern staircase close by almost reaches up to the platform below. Unlike the previous location the staircase consists of two staircases and platforms. Only the first staircase is flanked by a railing. The embankments wall is painted with graffiti. Located nearby are an elementary school, a church (including a square in front of it), some catering, dwellings and offices.

Proposed intervention

For this location, a 'City Lounge' will be created by arousing kind of a 'bare feet'-feeling. Most important elements here are the wooden swings, which hang down from the huge chestnut tree which is shading most of the island if there. While this now can be seen as a problem kind of blocking the entrance, in the future it will be the connection between the island and its surroundings. The swings will have different heights. As people will have different reasons to come here, two 'types' of swings can be distinguished. The ones at the outside - free of others nearby - will be there to have fun and swing as high as one could, while the ones more centrally placed will be there to have a talk with others and just go back and forth a little bit. The central plane of the island will be a flower bed full of poppies in red, white and blue - one can lay down in or sit with some friends and have a chat. Another important element here will be the cocktail bar where one can grab a cocktail and find ones way back to either the flower bed or the swings. Then, in the evening, orange Chinese lanterns - also hanging from the tree branches - will add to this 'City Lounge'-feeling. One can imagine sitting on a swing with a cocktail with your feet in the poppies and a Chinese lantern right above, must be a very surreal experience.


Expected results

Although the urban environment around this future island seems to be pretty multifunctional, the neighbourhood south of the Steigersgracht is deserted and lifeless during most times of the day. As it is proposed to open a cocktail bar on the swing island, opening a bar nearby (or on the island) is not a bad idea at all. This will probably also attract more visitors to come to the island and it can be expected that this will thus bring in more money. Attracting more visitors, shops along the bordering street will open and so more will come to visit this area and so on. Like in the case of 'The Living', the island can thus be more than just an attempt to reinforce the identity of Rotterdam's city centre, but by focusing on the water other urban problems can be solved.

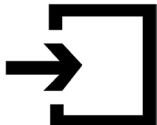


Figure 8.16: **Panorama view of Hang (north-northwest)**


Technical details

- 


General information

 - Size: 12.6m (l) x 6.3m (w)
 - Area: 105,84m²
 - Height: 0m
- 


Accessibility

 - 1ste & 2nd platform
 - Height difference 1st platform: 0.82m
 - Height difference 2nd platform: 0.22m
- 


Base plane

 - 9 pontons (2.1 x 4.2)
 - 0.5m under water; 0.23m above water
 - Flat
- 

Vegetation

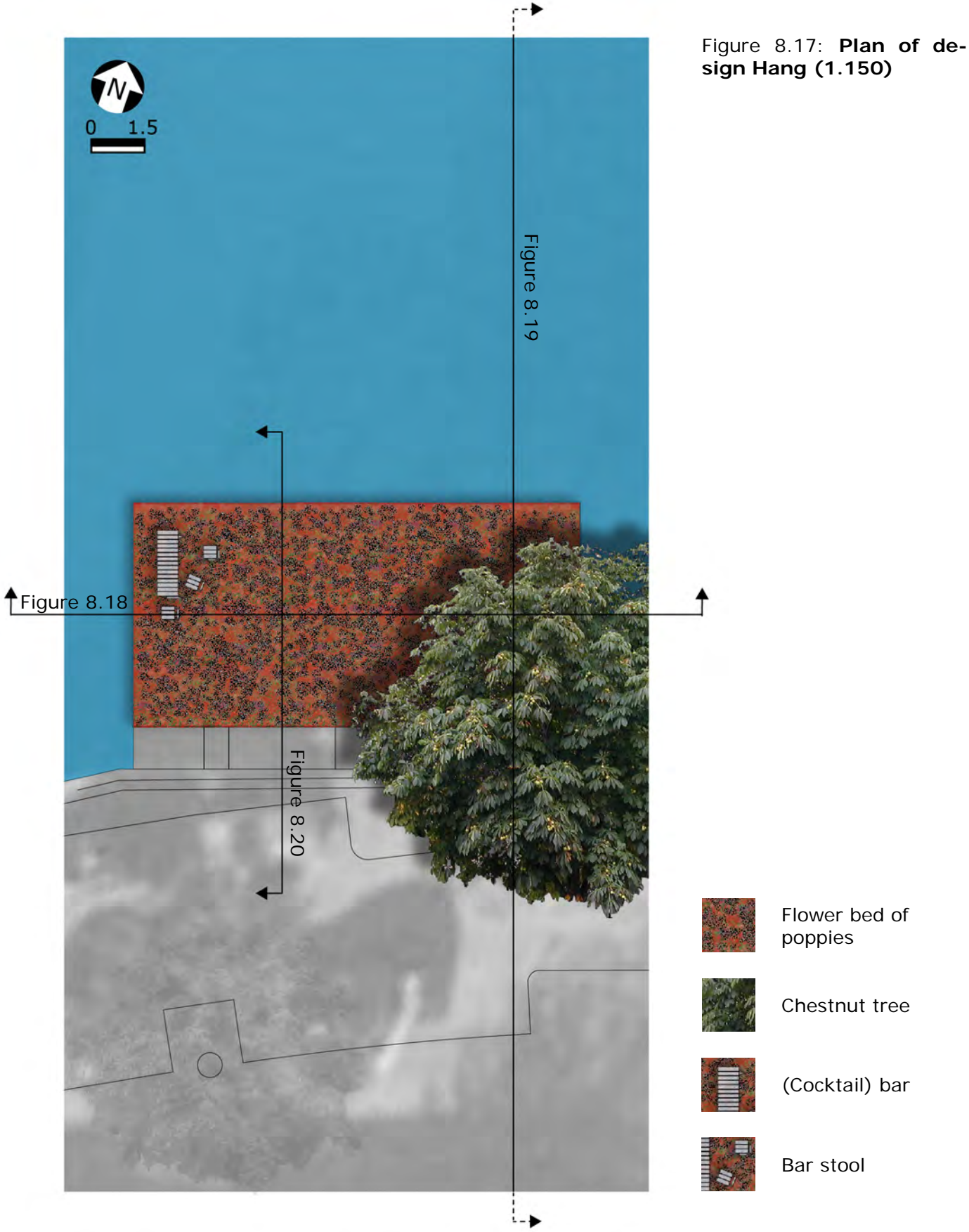
 - Common poppy (*Papaver rhoeas*)
 - Both red, blue and white forms
 - Height: 0.2-06m
 - Flowering time: May-July
- 

Furniture

 - Multiple wooden swings
 - 4 bar stools
 - 1 (cocktail) bar
- 

Illumination

 - Multiple orange Chinese lanterns



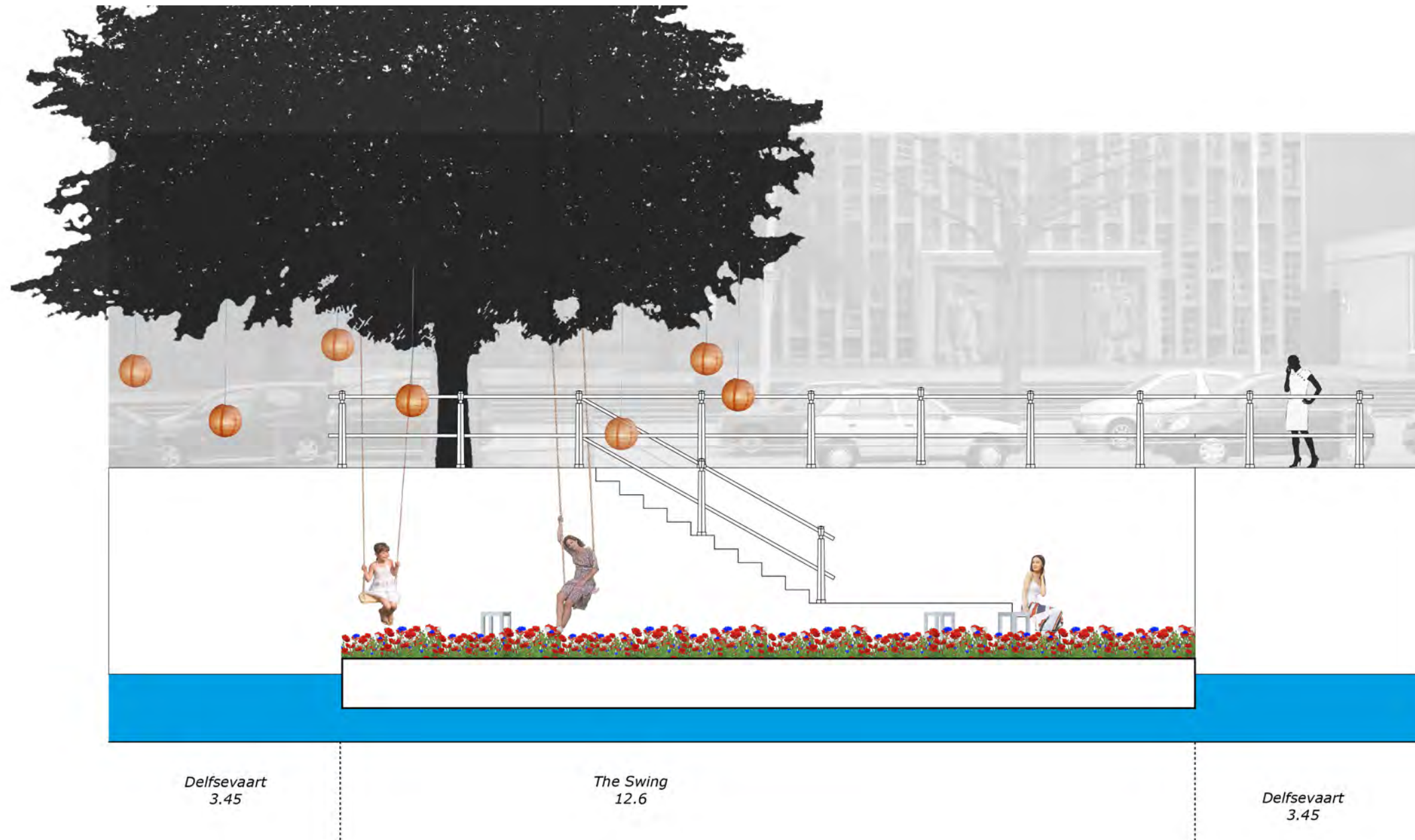


Figure 8.18: **longitudinal section (1.75)**



Figure 8.19: **latitudinal section (1.200)**

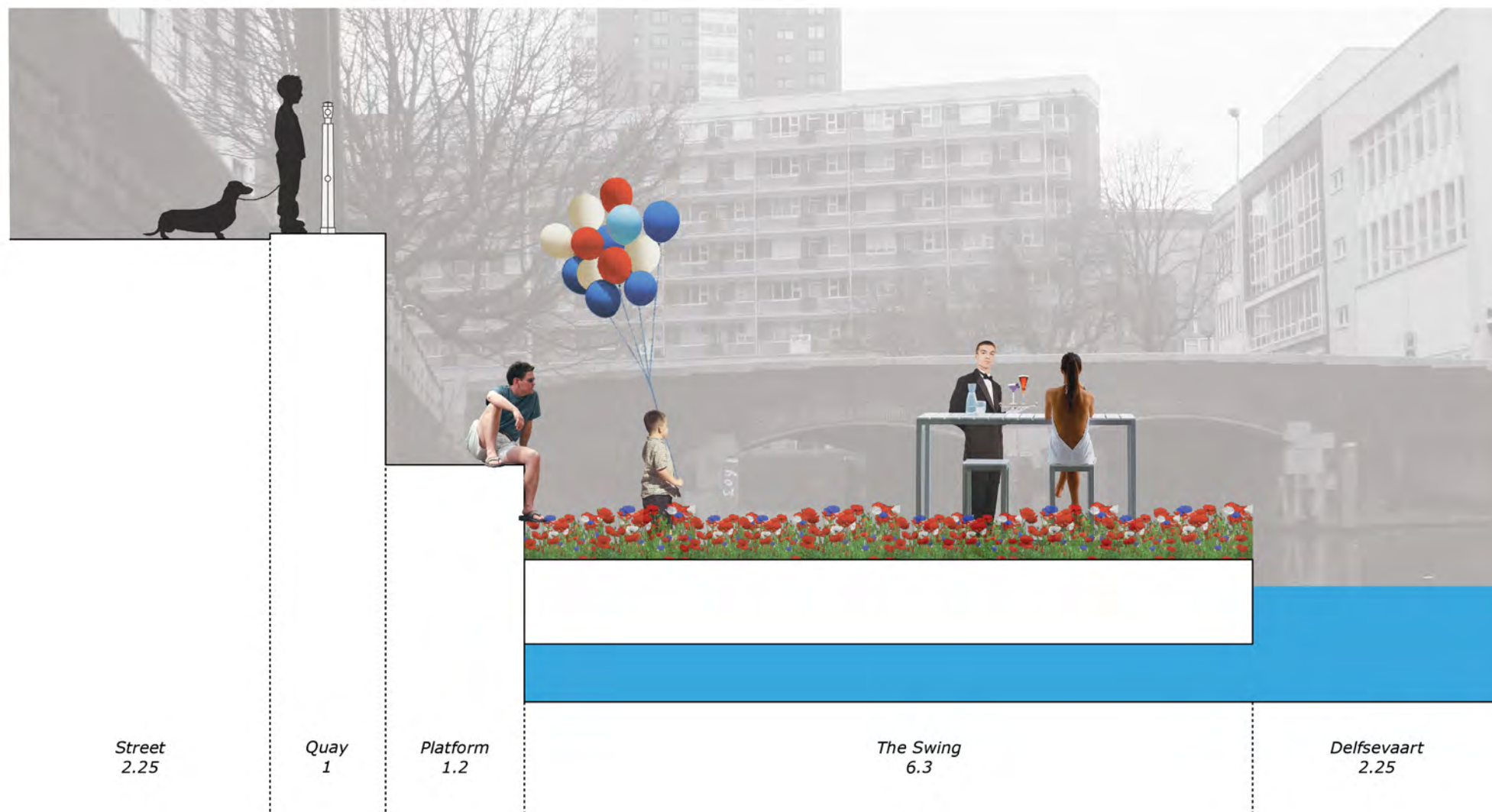


Figure 8.20: **latitudinal section (1.50)**

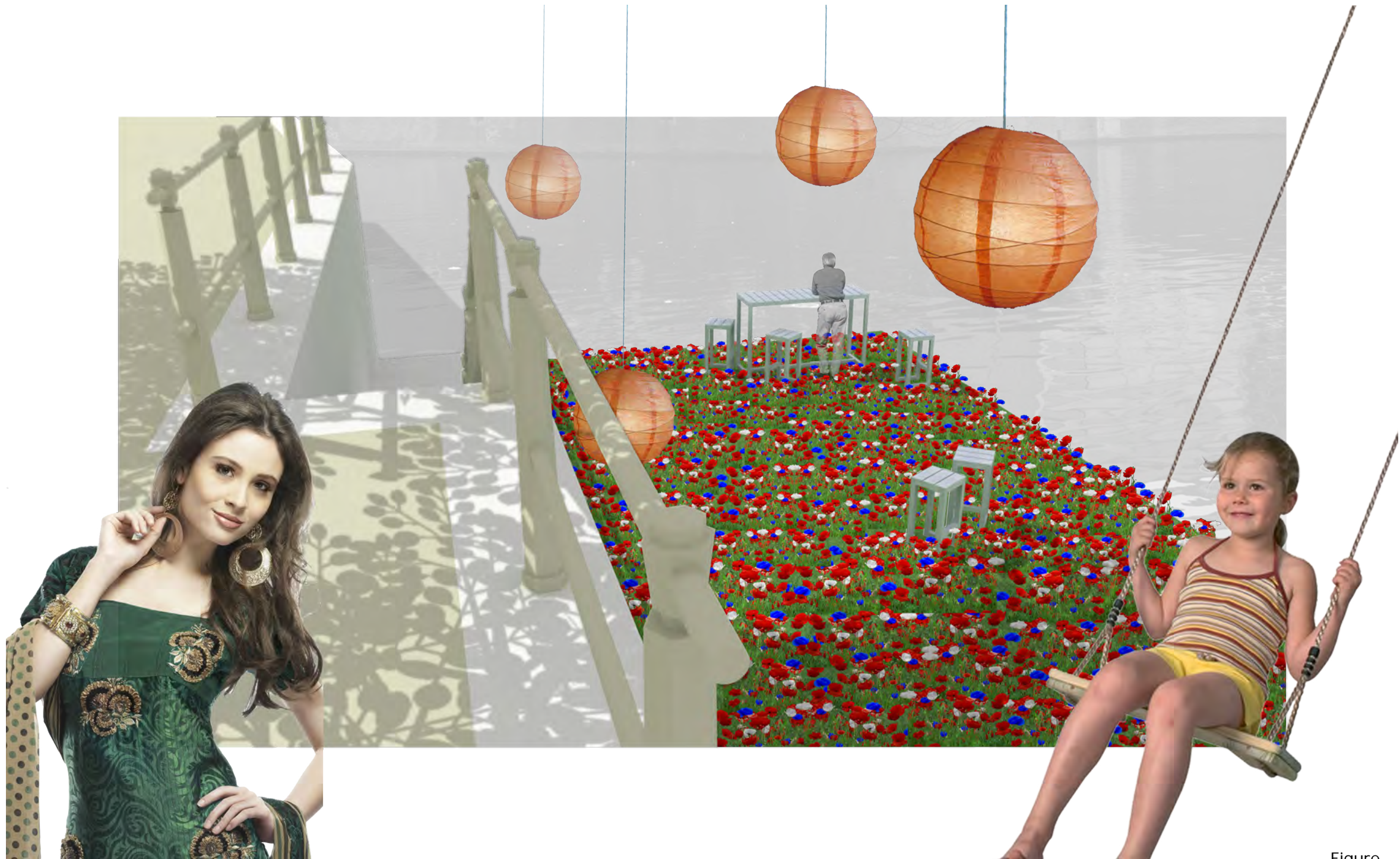


Figure 8.21: Future impression from above (west)



Figure 8.22: Future impression from below (east)



8.4

Wijnhaven / 'The Palm'

Current situation

The most southern location, located at the border between the land and water city, Laurenskwartier and Waterstad. Furthermore it's the only location directly under tidal influence (about 1.5m, based on field experience). As with the Hang, there are two staircases and two platforms. They are faced eastwards, so sun is in the back later afternoon. Unlike the two previous locations, there are no buildings or trees blocking the sun. What is also different from the other locations is that there is no railing at all plus it's an inlet in the pavement and thus not an 'extension'. Material is chic, but partly broken. Bordering are a boulevard, retail, catering, dwelling and some vacant offices. Nearby are the famous old Regentessebrug, the red light ship, the H2otel and 100hoog which is currently under construction and will be ready by 2013.

Proposed intervention

Proposed here is the 'The Palm'. Main elements here are the artificial palm trees, which are placed irregularly on top of the folded grassy lawn below it. With their bluish colour they are even more in contrast with their surroundings than they would have been otherwise. On the grass lawn, people can lay down for a while - being it in the open sun or in the shade of the palm trees. Furthermore, hammocks are placed between the palm trees so people can climb into them and rest or maybe even sleep for a while. The hammocks are placed at several heights, some of them only can be reached by climbing. A connection with the embankment will be realized with the help of two glass balconies. With low tide they will hover about 3.3 meter above the island, while with high tide this will only be 1.8 meter. The shortest balustrade ends up somewhere halfway the island, right in the middle of where most palm trees will be. The longest balustrade will reach up even beyond the island and will open up looking at the skyscrapers of the Waterstad. In this way, walking both will awake different experiences. Finally, spotlights with green and red lights - after the colours of port and starboard of this harbour area - will illuminate the island in the evenings and during the night.


Expected results

Although there are already some elements around which really add up the identity of this area, still many passive and closed ground floor frontages can be found - both in the water city and the land city. Noteworthy are the many vacant shops close to this island, for example in the Posthoornstraat. Therefore, this also being the case in the other designs, it is still interesting to propose an aquapunctural intervention here. Hopefully, this intervention will be able to regenerate both the orange zone north of its location and - bridging the Wijnhaven - the red zone of the Waterstad. At least, it contributes to the urban identity of downtown Rotterdam and will be part of the 'string of pearls' holding this connection together.

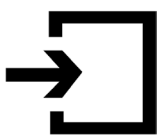


Figure 8.23: **Panaroma view of Wijnhaven (south-southeast)**


Technical details

- 


General information

 - Size: 25.2m (l) x 12.6m (w)
 - Area: 317,52m²
 - Height: 0-0.5m
- 


Accessibility

 - 1ste & 2nd platform (tide)
 - Height difference: 0
- 


Base plane

 - 36 pontons (2.1 x 4.2)
 - 0.5m under water; 0.23m above water
 - Up-and-down (figure 8.25)
 - based on pattern of ponton
- 

Vegetation

 - Grass lawn
 - 16 plastic purple palm tree
 - Height: 8-9m
- 

Furniture

 - Multiple wooden swings
 - 5 canvas hammocks - different heights
 -
 - [other: 2 glass balcony]
 - Size 1: 8.4m (l) x 2.1m (w) x 0.75m (h)
 - Size 2: 16.8m (l) x 2.1m (w) x 0.75m (h)
- 

Illumination

 - Multiple spotlights (green/red)

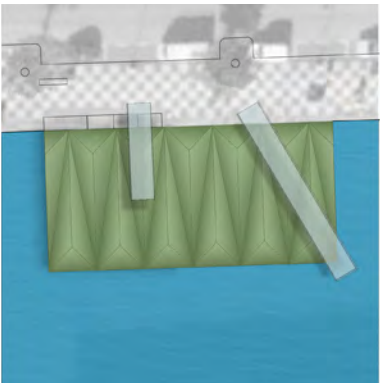
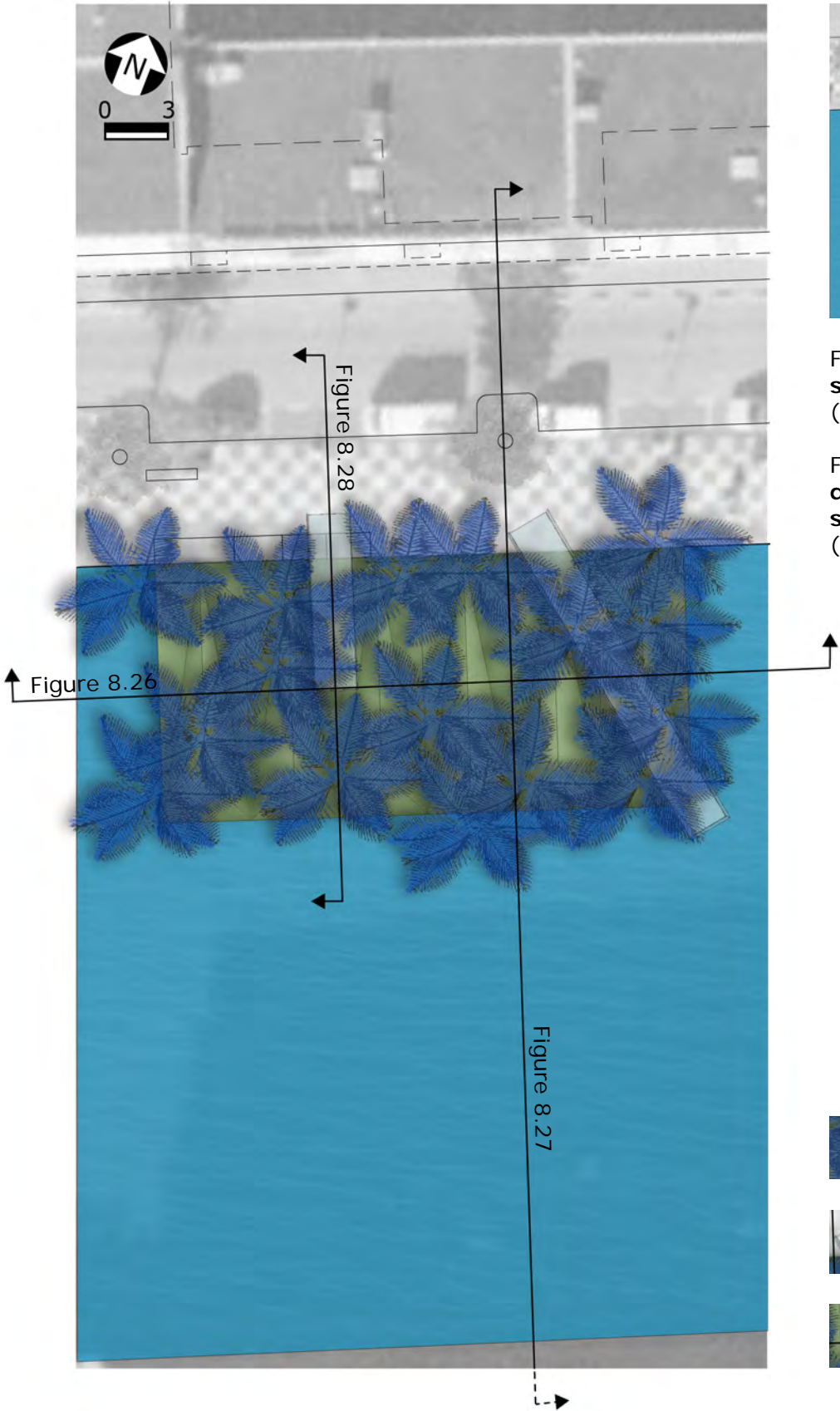


Figure 8.24: **Plan of design Wijnhaven (1.300)** (left)

Figure 8.25: **Base plan of design Wijnhaven (no scale)** (above)

-  Chestnut tree
-  Glass balcony
-  Grass lawn

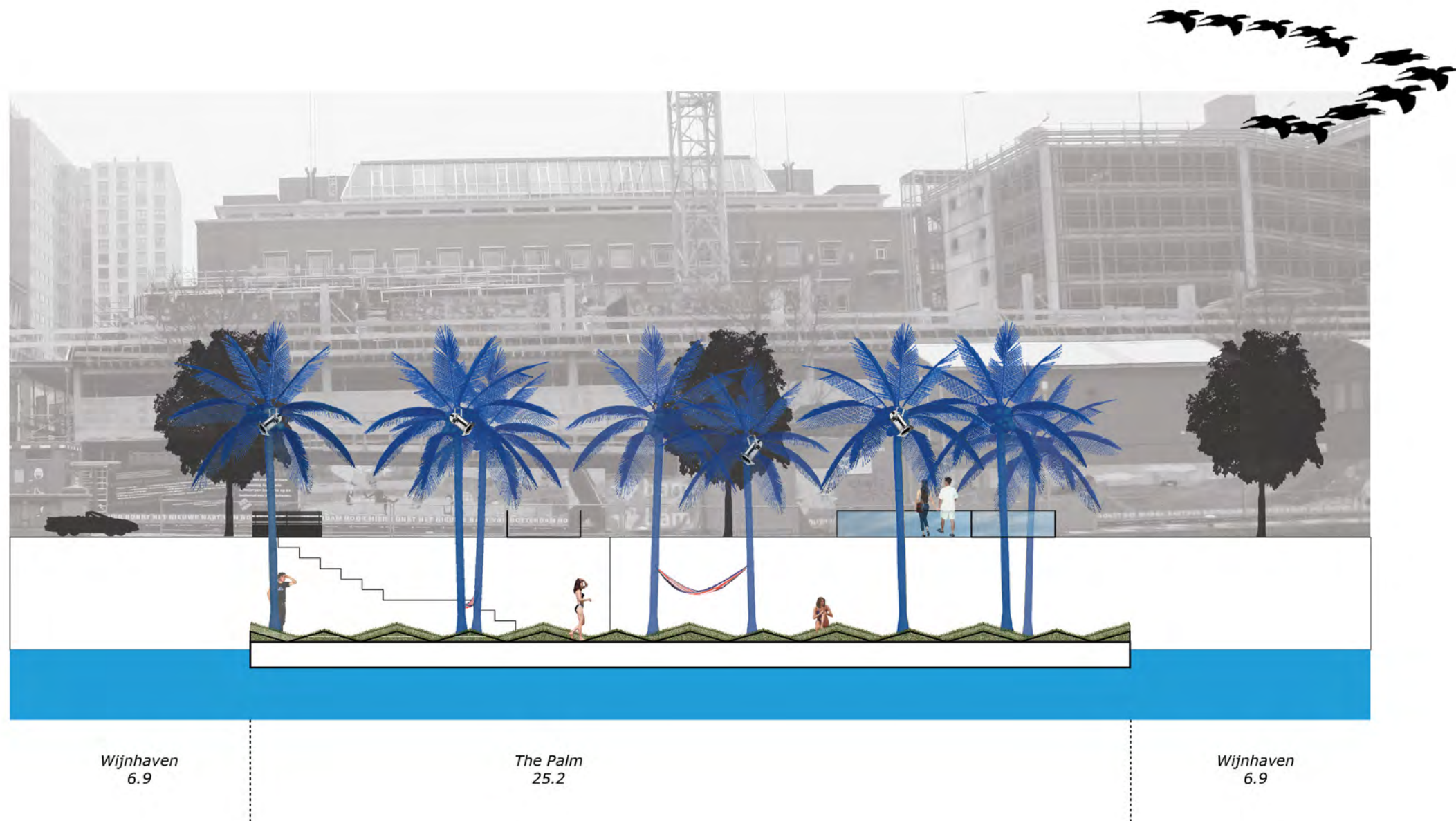


Figure 8.26: **longitudinal section (1.150)**

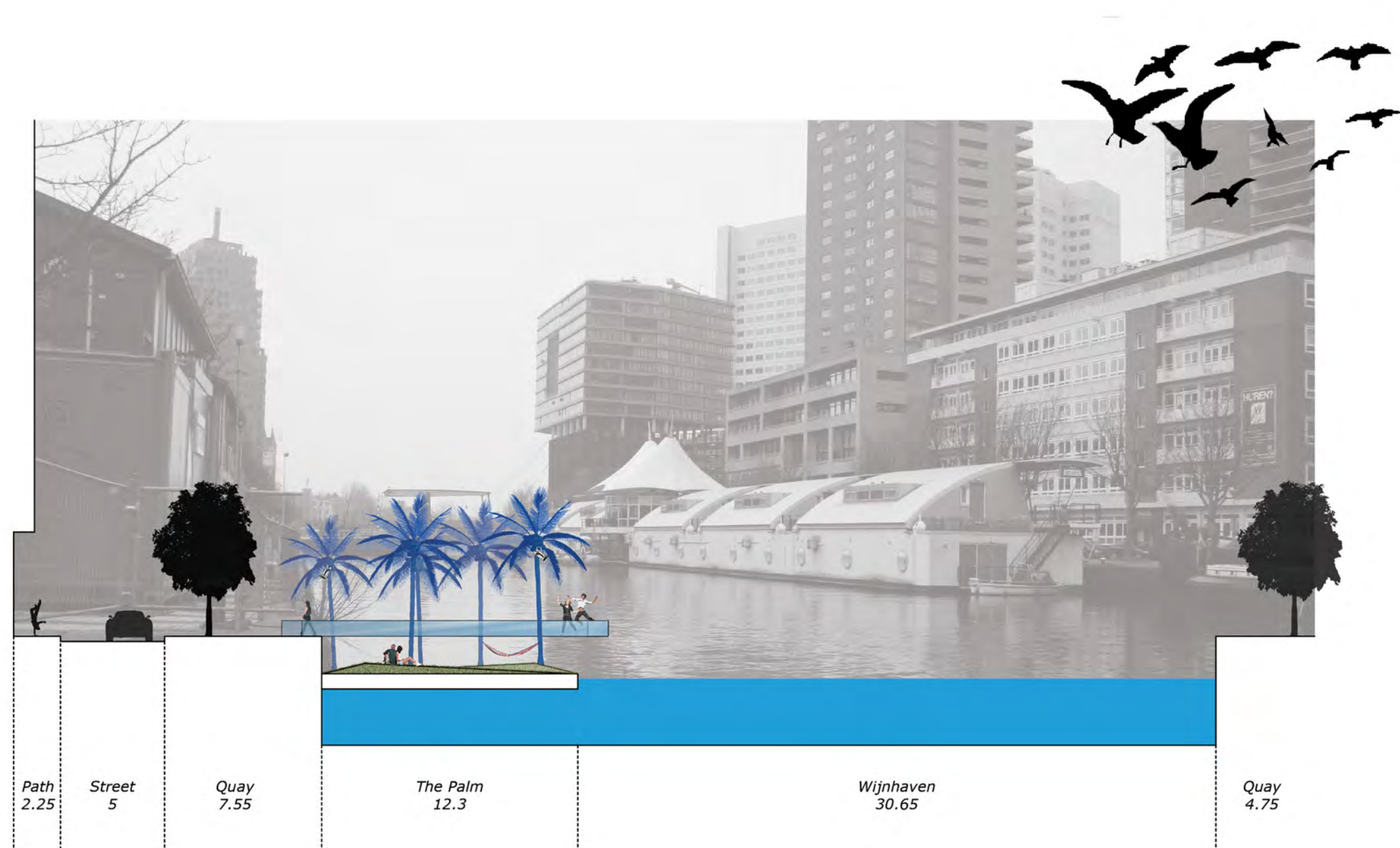


Figure 8.27: **latitudinal section (1.250)**

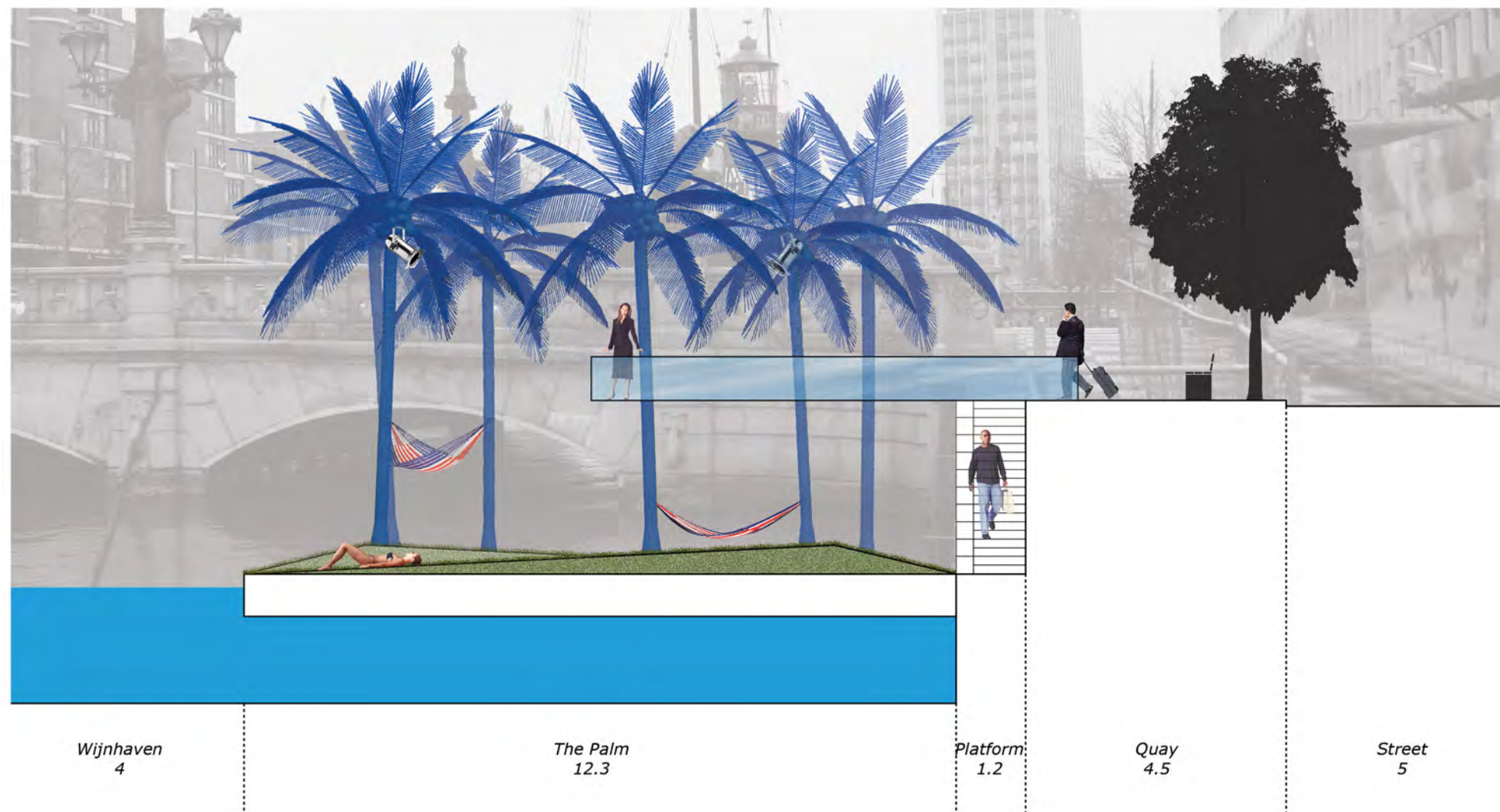


Figure 8.28: **latitudinal section (1.100)**



Figure 8.29: **Future impression from above (east-southeast)**



Figure 8.30: **Future impression from below (west-northwest)**

8.6 Conclusion

In this concluding chapter, as to prevent any annoying overlap, focus is mainly on how this particular design in Rotterdam's city centre will contribute to the city's identity and if these so-called aquapunctural interventions can be seen as 'proper' examples of Urban Acupuncture. Therefore, the design will be set off against the 5 elements - or better: criteria - of Urban Acupuncture to see if they address both the physical and social aspects of urban identity. Hereafter, in the conclusion of this MSc-thesis it is then tried to extrapolate this case to a more general level, also based on the theoretical framework - the same framework which will be used here as a reference to put things into perspective.

If I start by comparing the design with the five criteria of Urban Acupuncture, the first being accurate, is met although debatable. Although a thorough investigation of the possible interventions locations has been conducted, this has been partially influenced by the sites of the staircases. By luck, the most logical locations to intervene are almost coinciding with those staircases but still they are fixed points. However, still, for example Wijnhaven is just next to the Regentesse Bridge and, at the other side of that bridge, there is the famous red light ship - both already contributing to the identity of this area. Nevertheless, here still nearby areas need to be upgraded and therefore an intervention will still be useful.

If we now come to the second criteria, it's rather easy. With the smallest surface area being 105,84m² and the largest being 317,52m², these designs are small-scale. Especially within the context of Rotterdam this is of interest, as here a lack of human scale is felt ever since the two latest identities of post-war reconstruction and skyscraper city are dominant. As one has read in the chapter on Rotterdam, due to a focus on huge and tall architecture ever since 1945 onwards plus a priority given to the car instead of people resulting in main roads crossing the city, people don't feel at ease in those over-sized urban landscapes.

The third element, being catalytic for the whole surroundings, is rather difficult to assess as one cannot forecast the future and also as the aquapunctural are primarily meant to reinforce the urban identity on the scale of the city's centre. However, as one could read in the sections on the expected results, it can be expected the City Lounge islands will also be able to successfully address some of the other issues - both on the scale of the city as well as on the local scale. For example, by these recognizable islands the waterways are celebrated, they are examples of small-scale projects and the 'City Lounge'-feeling is taken to the extreme here.

The fourth criteria, to be implementable within a short period of time, has not been addressed in this thesis so far, but it can be expected that the actual construction of these islands will not take long. The islands themselves are made of pontoons which have a certain size (4.2m x 2.1m) and are easy to connect. So, the actual basis is easily made, although I can't tell precisely how long the construction of the base plane and the elements on top of it will take. However, it can be expected that it won't take very long taking into account their relatively small size compared to most other urban projects.

The fifth and most debatable element, being low in costs, has also been hardly discussed throughout mainly due to a lack of experience. Also it is beyond the scope and not within the limited time frame of this thesis to calculate all the constructions and maintenance costs, but some general things can be said. Regarding the construction costs, one ponton costs € 4.100,- (based on website B&J Equipment, 2012) and so for the largest island (Wijnhaven or 'The Palm') the costs will be € 147.600,-. The construction of the base plane will be close to zero for 'the Swing', but higher for both others. For the elements, the costs for the glass balconies will be amongst the highest as will be the baroque sofa's and lounge chairs. I expect the remaining purchase costs to be low. Last but not least, I believe maintenance costs will be high on average, due to the exclusive character of the furniture. Finally, again taking into account their modest size, I expect together costs will not be excessively high.

Summing up, the design generally meets the criteria of Urban Acupuncture. But has the design contributed to the urban identity of Rotterdam? I believe the answer is yes, as both the physical and social aspect have been taken into account. A distinctive character is created by taking the 'City Lounge' as a starting point for the design which have resulted in public space not yet to be found in Rotterdam's city centre. Also, I believe the public space in itself (on the water) also adds up to the uniqueness of these places. To address the social aspect of urban identity, it is needed to leave room for some personal involvement in the place so that people can build attachment towards those places and over time develop a sense of belonging. A possibility for people to interact with their environment is through uses and activities. Therefore, on every island possibilities are provided for rest and informal, occasional chatting (for example the swings). Furthermore, I believe, it's also through this specific use (the 'City Lounge'-feeling) the islands will be more distinct from other places in Rotterdam's city centre and so add up to its identity. So, with the design being Urban Acupuncture and able to strengthen the identity of Rotterdam's city centre, one can conclude putting theory into practice has been a success.

Epilogue

9



Conclusion

In the conclusion of the previous chapter the actual design have been discussed in the light of the two aspects of urban identity and five criteria of Urban Acupuncture. Now, in this final conclusion, it is tried to generalize these conclusions by putting them in a broader perspective and so being able to answer the main (and only) research question in this MSc-thesis: How can the concept of Urban Acupuncture strengthen urban identity? With the focus in the former conclusion (chapter on Design) being on both separate concepts, now their interrelatedness will be discussed. This has also been already discussed in chapter 6 and text below may have some overlap with this chapter.

Before I will answer this question, it is important to note this question assumes that Urban Acupuncture can in fact strengthen urban identity, although there does not seem to be many - if any - scientific evidence - also as identity is a vaguely term hard to measure and as there are no strict criteria for what can be called Urban Acupuncture. For now it is taken as a fact, but in the upcoming discussion I will reflect upon this. For now, let's assume Urban Acupuncture can be an approach towards reinforcing the identity of cities.

So, if we want to know how Urban Acupuncture can strengthen urban identity, the conclusions of chapter 6 are of importance. There it is shown the five criteria of Urban Acupuncture aren't directly transferable to both aspects of urban identity and that an intermediate step is thus needed. With urban identity being very context-dependent, to strengthen the identity of cities struggling with their current identity - if any -, a focal point or multiple are needed. This can be seen as the basis to build upon. Also in the case-studies these can be identified (chapter 5) and examples of focal points are discussed in chapter 6. Important to recall here is that these focal points are related to the identity of those cities who are in need of a stronger or 'better' identity and thus should be carefully chosen - based on knowledge of and experience with the city.

But once identified, the thoughtful acupuncture interventions still needs to be placed on the urban tissue. Urban Acupuncture can now help to figure out where Urban Acupuncture will be the most successful - taking into account that they have to be small-scale, accurate and catalytic for the whole surroundings. These criteria are helping to find the right nerves to act upon and thus find proper locations for the interventions to be done. An example of how this can work is given in the last paragraph of a subchapter called 'The role of Urban Acupuncture' in chapter 6. To avoid any further overlap with chapter 6, this will not be discussed here more in depth.

Regarding the design phase Urban Acupuncture is no longer of use, except the last criteria: to be low in costs. Though, without wanting to diminish the importance of this last criteria (see discussion too), I do not belief this should be leading in the actual design. Here, the concept of urban identity comes into play as one has seen in the previous chapters. As pointed out earlier already, important here is that every design should address both the physical aspect and the social aspect. One can also say a design should not only have an aesthetical function, but also a functional component. To make this less abstract, within the context of urban identity, the designs should be both special places but also places to meet.

To sum up, it is possible to reinforce urban identity using the urban acupuncture approach, but more is needed that just those two concepts. Focal points are the intermediate step as a means to come to an end and one could refer to those as being identity-makers. The role of Urban Acupuncture in the process is in a later phase where the acupuncture interventions needs to be strategically placed within the city. In this phase, the first three elements - all more or less related to the 'where'-questions - help to locate appropriate sites from where one can expect the energy to flow throughout the rest of the city. In this context, it is relevant to refer to Urban Acupuncture as being more of an identity-placer.

Having said this, as stated before, there does not seem to be any scientific literature on this self-develop theory and therefore some caution is required in communicating this proposed interrelationship between both concepts. Furthermore, Urban Acupuncture, is in the first place a belief based on the principle of 'small actions, great reactions' and an approach to deal with urban issues from a different perspective than most other approaches. This should be the main starting point and for sure not to be forgotten throughout the process if cities take Urban Acupuncture to work with as to solve their urban problems, whether them being identity-related or not.

Discussion

As a pre-final part of this chapter I now will reflect back on both the theoretical framework and the actual design for Rotterdam's city centre. With both urban identity as well as Urban Acupuncture being vaguely defined and hard to measure, there is a lot to discuss. Even more so, as there does seem to be hardly any scientific literature on linking both concepts in order to strengthen the identity of cities, as one has read in the conclusion and chapter 6. Then, finally, some comments can be made about the actual design.

Reflecting on both the chapters on urban identity and urban Acupuncture separately, most debate is about this latest term. Although urban identity is such a broad term, involving so many things, there seems to be general agreement about the dual nature of this concept, that is it needs to address both the physical and social aspect. However, such a consensus can't be found on the concept of Urban Acupuncture as one has read in the chapter on this topic. Most debate is about the criteria of being low in costs, although this is not explicitly pointed out as there are no clear-cut criteria on Urban Acupuncture so far. Nevertheless, within the context of the current economic crisis, it's precisely this what can be the added value of this approach and thus - if possible - needs to be addressed (but not leading, see conclusion) in every projects taking Urban Acupuncture as starting point.

If one reflects upon the interrelationship between both concept and (thus) the main question in this MSc-thesis, I want to continue on the point of view shortly pointed out in the conclusion before - if Urban Acupuncture is able to reinforce the city's identity in the first place. Although I do believe in the usefulness of this approach towards urban identity as also proven in the concluding chapter of the chapter on the actual design, at the same time in my opinion this concept might better do justice when solving other kinds of problems. Although hard to exactly point out why this is, I think urban identity is too complex - involving so many different topics - to solve by acupuncture interventions only. Besides, it's not clear what the catalytic effect(s) for the immediate surroundings should and will be, especially is one if trying to reinforce urban identity. A direct, tangible and measurable result is not to be expected. Although the examples of Bilbao and Barcelona show Urban Acupuncture can strengthen the identities of cities, there is also a lot of debate going on around the strategies used by those cities to become the cities they now are. One of the most famous examples of Urban Acupuncture is in Curitiba (Brazil), where it has been used to fix the inoperative traffic system (Talviste, 2010). I believe it are these more practical problems this approach should be used for the most.

If I now reflect upon the actual design, there is even more to debate. Some of this is already (partially) addressed in the conclusion of the chapter on the design itself, but will be discussed below more in depth. In the first place the chosen locations are debatable. Although justified in some ways, they still seem to be in contrast with chapter 6 in which it is said fixed points (being part of the cultural heritage) are less appropriate as they might not be located there where acupuncture interventions will be most effective. So, although in the case of Rotterdam these acupuncture interventions are for the most reasoned, there is always room for debate.

In the second place, one can debate if this is what Rotterdam's city centre really needs to reinforce their current identity as Rotterdam already seem to have many eye-catchers already but they just need be better connected (municipality Rotterdam & OKRA landschapsarchitecten bv, 2009). Although in this particular case, a new kind of public space on the water is meant to connect the city's centre with the Maas and have many more positive effects (see concept), at first glance this is a worthy argument and even after the municipality of Rotterdam can still decide to focus on what's already there now instead on what's not there yet.

Partly in line with the previous argument, one can discuss it's supposed lack of contextuality (except for some minor references to Rotterdam's past, like on the screens at 'The Living'). However, as proven by Gospodini (2004), in this post-modern multi-ethnic and multi-cultural society, innovative design gets stronger by adding or creating distinct landscapes and works more efficient as a focal point, while - on the opposite - built heritage tends to get weaker as an effective new means of place identity. Reasons have been discussed before in chapter 6, but one can imagine within multi-cultural Rotterdam this a relevant argument to focus on innovative design - also as it is much more in line with the character of Rotterdam as being a modern city.

In the third and last place, there are some practical issues in the design that are debatable. For example, with so many exclusive elements it's hard to fight vandalism (destruction, theft etc). Furthermore, some of this modern en innovative elements probably will require more maintenance than for example regular street furniture. Maintenance costs may thus be high and so may be the acupuncture interventions. Also, in the specific case of 'The Swing' it might be hard to nourish the poppies (especially during summertime with many people around) and how to keep this island attractive when the poppies are no longer flowering. Some recommendations to deal with some of these issues are given below.

Recommendations

As a last part in this thesis I will now come up with some recommendations, mainly to forestall some of the comments discussed in the previous subchapter. Hereby I will not focus so much on the theoretical framework, as I wish to avoid any annoying overlap with the other chapters and by now it should be clear that it is for example highly recommended to address both the physical, tangible world and social intangible world to successfully reinforce urban identity and that it is importance to take into account all the five criteria of Urban Acupuncture. Therefore I will now focus on the actual and come up with recommendations to take away some of the criticism.

In the first place people will doubt whether these aquapunctural interventions will succeed in being catalytic for the immediate surroundings - this probably being the most important criteria of Urban Acupuncture and if nothing will take place one can't speak of proper Urban Acupuncture. However, it's probably also the most difficult criteria to meet - especially if working on such a vaguely defined and hard to measure topic as strengthening urban identity. I believe the success of these islands will increase not only by linking these islands to nearby business (see next paragraph also), but also if certain specific uses and activities will take place here. For example, on the island called 'The Living' - with a focus on history, art and culture - a workshop painting or the performance of a play would be appropriate activities taking place here. Maybe a nearby shop in art supplies opens and if not, for sure it's a great opportunity for people to express themselves, become involved and so start to build attachment towards those places. Furthermore, these temporal activities will at least bring some life at this now most deserted and lifeless zone.

In the second place, to prevent vandalism from happening, it might be of interest to directly link a nearby business to the island. If this business can benefit from the nearby island by exploiting it for their own business (the most common example probably being it at terrace for a nearby restaurant or bar), it can be expected they will start looking after it and furthermore develop a responsibility towards these island, also as they will benefit the most when the island (being now part of their business and thus indirectly their income) looks attractive and clean. Thus, changes of theft or vandalism will be probably low. However, there is now the risk these islands will no longer be open for the public and slowly becoming exclusive outdoor serving areas. This is not in line with the strong focus on public space in this thesis and thus should be prevented at all costs. Finally, I realize both this and the previous paragraph are very speculative, but I also do believe they have the potential to seriously address some of the expected problems.

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