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Photo on the front cover: "Urban Bike Scapes, New York: Architectural analysis for a new urban typology". Photographer: Line Marie Bruun Jespersen

# URBAN BIKESCAPES IN NEW YORK - OUTLINE OF A NEW URBAN TYPOLOGY

# GITTE MARLING AND LINE MARIE BRUUN JESPERSEN

## Abstract

With an explorative analysis of the Manhattan Waterfront Greenway as point of departure, the focus is partly on the role of the new cycle environment as a mobility space, which can be experienced via movement and in transit, and partly on the architectonic and spatial qualities of the design as a framework for urban life and cultural interaction.

The paper begins with a presentation of New York City's intentions with the new bikescape on Manhattan. As a continuation of this, the results and the theoretical and methodological approach to the analyses are presented, from four perspectives:

- Urban bikescapes as a strategy to open the city and connect it in new ways
- Urban bikescapes as part of the historical and cultural identity of New York
- Urban bikescapes as a socially constructed place with emphasis on the social and mental meaning of the place and on the programs
- Urban bikescapes as an architectonic place

Finally, the analyses are summarized and the concept *urban bikescapes* is presented as a new urban typology and defined more precisely, as a concept.

Keywords: urban design, urban bikescapes, Manhattan Waterfront Greenway, urban architecture, urban transformation, urban space, mobility design

### **Overture**

Observations from Chelsea Waterfront Park, Oct. 9, 2012:

With a small ring from the bike bell, a young man is passing me, while commenting cheerfully on my white bike with the green tires. A trendy computer bag hangs from his one shoulder. The speed and the mood are high on the bike lane along the Hudson River on Manhattan in New York City.

While the busy cyclist continues to the north, I turn towards the water and pass through a small park, where some kids are playing with a ball on the grass. The bike lane continues right down at the riverside, along the river. Suddenly the wheel hits some soft, black sand. The bike almost comes to a halt; but I succeed in getting through the small space with the black sand and some big, black rocks. The creative lane along the water has its designed obstacles. At this particular place it's a spatial art installation, which spreads out on the lane (Marling, 2013).

# Introduction

This paper is based on a larger investigation of bikescapes on Manhattan during the winter of 2012. The chosen section, which is used as a case study in the paper, is Manhattan Waterfront Greenway, which runs from north to south on the western harbor front of Manhattan to the Hudson River. The lane continues via Battery Park on the southern tip of Manhattan tan up along East River, on the east side of Manhattan.

The accessibility by bike to a number of bridges across East River to Brooklyn has been improved, as a number of ferries take bikes to New Jersey, Brooklyn and the southern islands. That means an improved accessibility by bike to large and very different city areas. From the bike highway along the Henry Hudson Park Way, there are exits to byroads right down along the Hudson River. The byroads run through parks, squares and different areas for bodily exercise.

While the main path is designed like a bike highway, which allows you to move quickly in the otherwise rather impassable cityscape, the bypaths linking with this path have been designed with various kinds of sensuous experiences in mind and with several art installations and possibilities to stop and get involved in diverse leisure activities. It is this complex of the main bikeway and its secondary paths, urban spaces and art, which is the topic of this paper.

This is a path system that both meets the need for quick bike transport in daily life and the need to relax, socialize or to experience wind, weather and the change of seasons during leisure time. Along the route, the new mixes with the old in a rich experience cocktail. New transitions are built between the city and the harbor in the form of office environments and cultural institutions, designed by famous architects. The buildings replace the previous industrial complexes. Likewise, the harbor areas on the many piers are undergoing transformation from industrial plants, halls and jetties to new sport facilities, squares, parks, etc. However, in some places remains of the old piers are still present – reminiscences of bygone times with industrial architecture and labor activities, which gave the harbor area its very unique social and cultural identity and aesthetic expression.

# Theses and research questions

The paper presents a case study with an explorative approach. The purpose of the paper is to understand the character of the new super bike lanes in New York, and to find ways to analyze them as they are an example of a wide spread urban transformation strategy towards city environments that emphasize, culture, livability and sustainability.

The thesis is that these urban bike environments open the city in new ways, and further that a bike ride through this transition landscape, between the river and the city, gives the cyclist insight into the daily life of the city and the ongoing transformation process. This possibility comes about because the bike routes are cutting lengthwise and crosswise of various urban areas. The trip on a bike through different parts of the city links a number of city images and city experiences.

Furthermore, the thesis is that the web of paths and parks and urban spaces creates a new action zone for urban life and for social and cultural exchange. The accessibility means that parks and playgrounds, etc. are no longer reserved for the local neighborhood. It seems that the design is a consciously used tool for opening the city, which is otherwise very lifestyle segregated.

The paper begins with a presentation of New York City's intentions with the new bikescape on Manhattan. As a continuation of this, the results and the theoretical and methodological approach to the analyses are presented, from four perspectives:

- Urban bikescapes as a strategy to open the city and connect it in new ways. Here we focus on the serial experience of the architecture, spaces and cultures of the city.
- Urban bikescapes as part of the historical and cultural identity of New York. That means the historical and cultural meaning of the place, as well as the significance of the new design as generator of change and urban transformation.
- Urban bikescapes as a socially constructed place with emphasis on the social and mental meaning of the place and on the programs, which play a role for both functionality and experience.
- Urban bikescapes as an architectonic place, based on a combination of architectonic gestalt, architectonic elements and aesthetic experience.

Finally, the analyses are summarized and the concept urban bikescapes is presented as a new urban typology and defined more precisely, as a concept.

#### Intentions and goals: Manhattan Waterfront Greenway

The City of New York has defined what a greenway is – and what functions it has. On their homepage, they write:

A greenway is a linear open space, such as a path or trail, which links parks and communities around the City, providing public access to green spaces and the waterfront. Greenways expand recreational opportunities for walking, jogging, biking, and in-line skating.

In 1993, the City of New York had a vision to create 350 miles of landscaped bicycle and pedestrian paths that would crisscross the City's five boroughs and enrich the lives of all New Yorkers. Currently 'Parks' has built over 100 miles of the proposed greenway system.

Greenways answer the growing public demand for safe and pleasant ways to travel about the City. These trails allow one to get to work or school, shop or do errands, or to reach the waterfront, parks, beaches, and museums (New York City, 2012).

These years, systems of such greenways are thus developed along the waterfronts on Manhattan and Brooklyn. They connect the densest parts of the city with recreational areas on Governors Island, with beaches on Coney Island and Rockaway Seaside and with new artistic environments in Williamsburg etc.

Simultaneously bike lanes are established crisscrossing Manhattan and Brooklyn, and experiments with a temporary bike lane and temporary urban spaces are taking place on Broadway. This means across one of the densest and most urbanized city centers in the world. The greenway system does not only make cheap and sustainable transport possible. It also creates access in the city. Already the initial observations showed us that it opens new parts of the city for urban development and it creates new interactive zones for urban life. It seems to be a new urban typology with new experiences, which create more openness and diversity.

In the following, we present the way this finds expression in architecture and design.

# Data collection and analytical approaches

Gitte Marling has gathered the data material via a number of bicycling trips through the areas. The first round of observations was done with the purpose of experiencing the route in movement, while registering transitions and rhythms, in the form of changing spaces, scales, textures, light/shadow, smells, sounds, wind and shelter; but also varying programs and uses. In the first registration, the emphasis has been on the experience of moving through the areas, at bike speed. The observations are primarily related to the serial experience or "serial vision" which was developed as a method of registration by researcher of architecture Gordon Cullen (1961). The registrations have been drawn on maps and supplied with comments and photos. In connection with the *serial visions* emphasis has also been placed on the time related and historical dimension linked to the urban transformation on the harbor front: The story of decay and the memories; the non-contemporary; the new urban images and future identities.

The following bike rides were interrupted by many stops, where chosen parks, installations and urban spaces were analyzed. Here, the focus was on the spatial gestalt with an emphasis on how the urban spaces connect with the path system, and how they connect with each other. In order to get an idea of the connections of the bikescape area not only to other parts of the same bikescape, but also to other areas of the, registrations were made of these adjacent parts. The architectonic elements in the form of materials, colors, surfaces, trees, plants, objects and equipment in the city were included in the registrations.

Observations lasting one hour were conducted during three different days from early October until early December (two weekdays and one Saturday) in order to obtain information about the usage of the place. These focused on registering who is the typical user of the place and for which purpose. The observations were supplemented with short conversations with selected users, primarily women of different ages. Furthermore, analyses of written sources, historical documents and historical photos were included.

## Phenomenology as theoretical framework

How can this new system of bike lanes, squares, parks and waterfront areas best be analyzed, when the interest is more on the aesthetic experience and the way the bike lanes open the city, than on traffic planning issues? We have chosen to use a phenomenological informed analytic strategy of Manhattan Waterfront Greenway and have paid special attention to the experiential value of the design and how the user interacts with the spaces. However, in the main project a more classical architectural analysis of form, functions and materials has been conducted as well (Marling, 2013).

# Opening of the city – about the serial experience of the architecture, urban spaces and cultures.

Gordon Cullen describes the serial experience of the architecture of the city in his book *The Concise Townscape*:

In fact, there is an art of relationship just as there is an art of architecture. Its purpose is to take all the elements that go to create the environment: buildings, trees, nature, water, traffic, advertisements and so on, and to weave them together in such a way that a drama is released. For the city is a dramatic event in the environment (Cullen, 1961, p.7).

Bicycling through a metropolis is fascinating. Why? First, the answer is found in the merging of sensuous impressions that a bike ride offers, as Cullen points out. The speed is less than in a car, where details cannot be observed in transit. You do get around in the car, but the car interior limits the view and minimizes the experience of the colossal, vertical scales and spaces. The car interior shields the driver from smell and to some extent from sound. However, the speed is not as slow as the pedestrian, where the distance one is able to cover is limited.

Robert Venturi, Denise Scott Brown and Steven Izenour worked analytically in the same way as Cullen with "art of relationship or relationships among different elements of urban architecture". Their book *Learning from Las Vegas* explored the connection between the speed in which Las Vegas was experienced in the 1970s and the speed of the car. The authors had a particular focus on urban architecture typologies that are developed in Las Vegas in the form of huge car-parks, striking building facades, very large signs, attention creating lighting, etc. (Venturi, Scott Brown and Izenour, 1977).

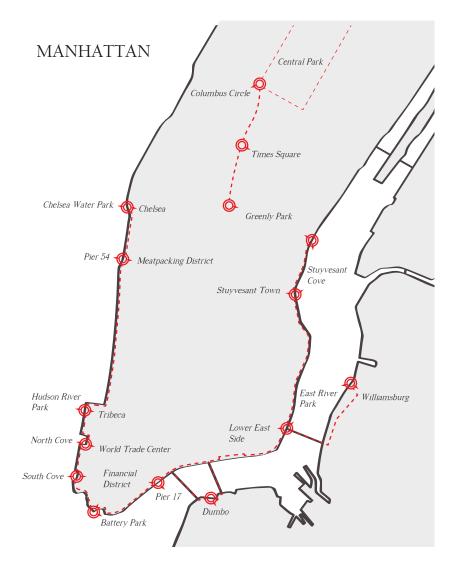
Among other things, the outcome of the research work was documentation of the relation between speed on the one side and urban architectonic elements like "scale", "space", "sign & symbol" on the other. This relation has inspired the analyses of Manhattan Waterfront Greenway.

Another inspiration for the analyses comes from Kevin Lynch and his research based on the connection between the movement through the city and the city images we use to navigate from. For Lynch the mobile perception was very significant. In his opinion, spatial forms cannot be sensed from one viewpoint alone. To understand and sense the architecture and spatial forms of the city, you need to move through the urban landscape and around its objects. Here, his points of view and research results match those of Gordon Cullen (Lynch, 1960). Lynch later points out that urban design or city design should take its point of departure in the way the inhabitants move through the city, to a greater degree than is now the case (Lynch, 1995).

The bike ride along the Hudson River goes through parks with playing children, a skater park or a playing field with enthusiastic young sportspeople and past a fenced in area for people with their dogs, where also socializing takes place. As the bike is not noisy or creates emission gas, it is possible to let the lanes pass close to or right across these urban spaces. It is possible to use see-through fences around playgrounds, etc., creating transparency and interaction. The speed and the character of the bike as a means of transport make this possible. Furthermore, the scale is small, there are many details and signposting is often unnecessary, because you can see what is going on with your own eyes and you have time to orient yourself.

Along the bike ride, you witness how the social and cultural scene is changing in content and expression. Soon, you pass a number of the necessary activities of daily life (Gehl and Gemzøe, 2006) in the form of an exit from a warehouse, a fire station or a garbage disposal. Then, the trip goes through the highly polished granite surfaces in the Financial District complete with café tables, people in suits with mobile phones, expensive yachts in the sailing clubs and exclusive shops (Marling, 2013).

Fig. 1 Map of Manhattan Waterfront Greenway. ILLUSTRATION: XX



Battery Park on the southern tip of Manhattan is the value symbolism of the urban space. Here, the bicyclist is confronted with the cradle of the nation and the representation of its ideologies in the form of various, striking monuments and the view to Ground Zero. In the opposite direction towards the sea, the Statue of Liberty is towering with high held freedom torch.

Along East River, the social and cultural scene changes content and expression again. The many sports fields and joggers tempt people to exercise in the public space. The leisure activities mix with the everyday life of the homeless people on benches under Manhattan or Brooklyn Bridges. Here are also anglers from East Village with fishing tackle in bags and homemade boxes on the bikes. They attempt to supplement their households with a fish or two. The life in this world is very different from the one lived in the areas around the urban bikescape in the Financial District (Marling, 2013).

#### Fig. 2

Illustration of serial visions. The huge scale of space and architecture make it possible to see and experiences the different "art of relationships" – both the narrow smaller long the path and the more distant (Cullen, 1961) with a speed of 25 km pr. hour or the speed of the bikers.

ILLUSTRATION: GITTE MARLING



Biking through town also provides the experience of architectural and spatial transitions, changing rhythms, changing scales, changing lights, materials. In passing, it is possible to feel the space, including wind, sun and the hilly landscape in the body. It is not only the eyes, which see – it is the body, which sees and feels (Pallasmaa, 2005).

The following quotes from the observations illustrate this:

#### Observations October 10, 2012:

The trail leads across a small space with wooden surface. The handlebars are shaking, yes the whole bike and the body, too (Marling, 2013).

### Observations October 26, 2012:

Around World Trade Center, new buildings are towering, creating a dark space to bicycle in. It feels as if the bike lane is becoming narrower – it is like bicycling at the bottom of an "urban Grand Canyon". You simply have to get off the bike and lean your head back to perceive this incredible, architectural scale (Marling, 2013).

### Observations November 8, 2012:

The bike lane across Manhattan Bridge rises with the bridge high above Manhattan and East River. You have to pedal hard on this bike without gears. It is felt in the body: the legs get tired, the lungs wheeze ... a train is roaring by: gakke dunk – gakke dunk – gakke dunk. The noise is enormously intense and the sound waves shake the entire bridge construction, while sending shock waves through the body. I stop; catch my breath while gathering myself a bit. My heart is hammering ... the view is totally breathtaking. Spontaneously I think that this is an aesthetic experience, which is experienced in the now and absorbed in the whole body (Marling, 2013).

The notes show that the movement influences the aesthetic experience of the architecture of the city. It also shows that in order to create experiences the design of the urban bikescape uses the combination of the extreme urban scale and the human scale, where the body is challenged by transformation of muscle power to the bike.

The project understands an aesthetic experience as a sensuous experience, which is felt as a physical reaction in the body here and now, and which will be remembered later, creating thoughtfulness or making the person change behavior. Merleau-Ponty writes about the aesthetic experience or the perception: "My perception is (therefore) not a sum of visual, tactile and audible givens: I previewed in a total way my whole being: I graph a unique structure of the thing, a unique way of being, which speaks to all my senses at once" (Merleau-Ponty cited in Pallasmaa, 2005, p.21).

An aesthetic experience or perception speaks to all the senses (Bruun Jespersen, 2010). The architectural and aesthetic experience of bicycling through Manhattan Waterfront Greenway is a sensuous, bodily experience.

# Manhattan Waterfront Greenway links the city

The urban theorist D. Massey points out that, among other things, it is important to think about places as articulating movements in a network of social relations and perceptions, which include local significance as well as links to the big world. She emphasizes that this gives us the possibility to have a sense of the place as an extrovert place and as an awareness of its links to the big world, which integrates the global and the local in a positive way (Massey, 2005).

In this connection, it has been registered how Manhattan Waterfront Greenway links the existing trail and road net and ferry connections to more or less distant destinations and how it merges with the space and trail structure of the waterfront.

Figure 1 gives an example of this. A section of the map of Manhattan Waterfront Greenway shows how the bike route links with Chelsea Waterfront Park and its system of space, pedestrian paths and recreational bike trails. Furthermore, the map shows that the park area consists of small and large spaces, some of which open towards the river and others towards the path. Some spaces are green, while others have a hard surface. The spaces are connected by a winding path system. The map also shows the good connections to Chelsea, which is situated inland. Attempts have been made to find design related solutions to overcome the barrier created by the freeway (J. Hudson Parkway).

#### Fig. 3

Illustration of an example of form giving and design of the urban bikescape: the combination of patterns of bike and pedestrian paths, transitions zones and urban bikescapes.

ILLUSTRATION/PHOTO: GITTE MARLING



Urban Bike Scapes: Example of pattern, spaces and connections

The map illustrates how the park's system of spaces and paths are coupled up to the north and south going Manhattan Waterfront Greenway.

Besides id shows the connections to Chelsea.

# Urban transformation - history and new cultural identity of New York

A trip along the Manhattan Waterfront gives an insight into the changing power of time. The changing production, social praxis and activity, and their significance for the identity of the place are obvious and easily legible.

The space can be understood as an accumulated story – a product of the social praxis of different groups. According to Henri Lefebvre, space is now and then a place of production (Lefebvre, 1991). In his theoretical studies, he focused on the city and urban spaces. One of his great ideas was that space is created via the social production of place, i.e. via presence and social interaction, which happens both currently as well as historically. Space can be understood as an accumulation of history – a product of the social praxis of different groups. Soja (1996) used Lefebvre's "social production of space" as an outset, when he coined the term "Thirdspace", which is an expanded and complex understanding of space, that consists of time, space and the social simultaneously. The three aspects have proved useful analytical parameters for investigating the multiple impacts urban installations have on the space they are inserted into and on the relation between space and users (Bruun Jespersen, 2010; 2011; Rendell, 2008). Any design or art intervention will have an impact on the three aspects.

Mari Hvattum is interested in architecture and its ability to create urban identities. She is an advocate of a pragmatic understanding of space, where architecture contributes in creating spaces, just as it makes the norms and achievements of the past visible. Architecture and landscape design can create physical gestalts, which appear as layer upon layer of human action in memory, language, habits and physical form. Hvattum's point is that architecture creates new spaces – and recreates old ones – as it continually negotiates and re-interprets the meaning of nature as well as of space (Hvattum, 2012).

The design and location of Manhattan Waterfront Greenway has made the most out of the existing spaces. Along the route, there are many visible signs and reminders of bygone times and of the changes that have taken place historically and right now. The bicyclists ride through the coupled spaces of the bikescapes, and they experience a series of spaces that have different historical significance, and represent the history of the sites.

The trip from Chelsea Waterfront Park past Chelsea Piers illustrates this condition. The history of Chelsea Piers goes back to 1910. For 50 years the piers worked as a passenger terminal, later as a place of disembarkation for the army during the 1<sup>st</sup> and 2<sup>nd</sup> world wars, and finally as a freight terminal. With the development of the container ships, the harbor activ-

ities on Manhattan came to a standstill. It was not possible to facilitate the big ships, and in 1963, the harbor activities ceased to exist. Chelsea Piers fell into disrepair. In the early 1990s, the Chelsea Pier management bought the facilities with the intention to develop the piers into a recreational center with many activities like parking, a big skating stadium, fitness equipment, a brewery serving beer, function rooms, a golf course, etc.

Chelsea Piers Sports and Entertainment Complex opened its doors in 1995 and invited the New Yorkers into the new halls (Chelseapiers, 2012). Today Chelsea Piers consist of quite a different kind of urban spaces than previously – and they differ from those you can experience in the adjacent park. They are more raw and industrial. The different indoor and outdoor spaces are privately owned and administered, but they are open to the public and appeal to a wide audience. They work as "adds on" to the park and contribute to the new bikescapes.

Observations in the golf course in Chelsea Piers, May 2010: A game of golf in Pier 59: First the balls and the golf clubs are supplied. This happens in some rather worn down, industrial surroundings. But when you have climbed the stairs and got on to one of the platforms, from where the ball is struck across the course, the view of the Hudson River is impressive. The large transparent net creates a very particular spatial experience. In the evening, the lights and the boats on the river provide an atmospheric element of city and river (Marling, 2013).

After Chelsea Piers, the remains of Pier 54 follow. It is a landscape left behind and a reminder of a time, which once was.

#### Observations on Pier 54, October 10, 2012:

Bicycling through the remains of the gates is a magical moment. In just a few seconds, the chaotic, sensuous impressions of the city are left behind. In front, another world is opening – from the spatial perspective; the open area defines the space. It is the horizontal surfaces: the concrete surface and the water surface with the firmament above. Simple and stunning ... It moves me in an inexplicable way.

Here is a lot of sky. It seems to be more "blue" here.

It seem to be quiet. Can the freeway be heard? It seems far away.

Time is standing still – and the signs of this are present in a number of details, which almost by themselves come into the viewfinder of the camera – the abandoned iron chains, the tackles and the pulleys, which shine rust-red in the sun. The old wooden fundaments, sticking up from the water surface and the remaining asphalted surface, with patches and cracks (Marling, 2013). A big, active building site is the neighbor of these historical remnants. Here New York's next big art museum is being built.



# Space and social construction

The New Yorkers have adopted the areas along the East River and the Hudson River. Many spend time there or bicycle through during the week and on weekends. Obviously, the most intense use is when the weather is good and the sun is shining. The locals mix with the tourists, because there are several places of call for ferries and tour boats along the waterfront. Battery Park, High Line, various museums, big sport facilities in Chelsea Piers as well as soccer stadiums, sport fields, skater parks and recreational parks, stretching along the piers into the water are elements that seemingly attract many non-locals, judging from language and appearance. The area is "open minded" (Waltzer, 1995) with a wealth of different offers and programs, which are merged together by the trail system. The programs in the border zone between the water and the city greatly increase the possibility for a manifold urban life and for a social and cultural exchange to take place. According to Richard Sennett, zones like these are of particular importance for an open and democratic city (Sennett, 1995; 2005).

As a background for the analyses of the space as a social construction, a number of classical urban sociologists and their theories on urban life and human social behavior in larger cities have been employed. First and foremost, there is Jane Jacobs (1992) and her studies of urban life in New York and particularly the areas around Chelsea in the 1970s and

#### Fig. 4

Remains from a time where Chelsea Pier had a leading role as passenger and freight terminal. The old iron in the sun adds a special atmosphere of historic time to the place. This is only one example of the many historic symbols, which are still visible along the bikescape. PHOTO: GITTE MARLING also George Simmel, who, as the first urban sociologist, dealt with "sensory ethnography" in his studies of the presence of the urban dweller in the over stimulated, modern city (Simmel, 1903). Erwin Goffmann supplements him. Among other things, Goffmann studied how the urban population unconsciously related to one another in urban spaces (Goffmann, 1963).

Via observations, photo documentation and a few interviews it has been registered how the spaces are used and whether the users are of different gender, age and social status. However, it has not been the main goal of the project to document whether an actual social and cultural exchange is taking place and then to determine whether this is a public domain (Haajer and Rejindorph, 2001).

The following observations show how the areas along the Hudson River are used:

Interview: Jane, October 10, 2012 Chelsea Waterfront Park is lovely ... This is my park. My husband participated in a citizen group, which was involved in the process of renovating it.

I live in Chelsea and go here by bike to exercise several times a week.

Here there is shelter and a view ... the surface is fine, and then I feel completely safe here ... Also many people pass by ... I speak to many people when I am here (Marling, 2013).

Fig. 5 Chelsea Waterfront Park PHOTO: GITTE MARLING



The urban bikescape seems to be a safe place to be, as many women are using the area and different pocket parks. According to Jan Gehl and Lars Gemzøe, this should be an indicator for a feeling of safety. You can relax here. The reason might be the open design of the urban spaces, and the fact that many pedestrians or bikers are strolling by. There are, in Gehl's and Gemzøe's (2006) words, "eyes on the place".

There is activity even in the empty areas. Pier 54 is used for art installations and events of temporary character. On Sunday October 7 the otherwise unused Pier 54 was full of spectators, artists and various technicians and TV-people. The artist David Blaine performed a completely unusual performance, lasting three days and nights. On other days, the area was empty. Yet, one day a small group of high school students was relaxing in the middle of the open space.

Observations and interviews, Pier 54, October 22, 2012:

"We often come here, when we have a break – it's a nice place – kind of out of town. There are not many places like this left in New York", one of the boys explains: "We often bring our skateboards" (Marling, 2013).

# The body's architecture – the architectural place seen from the dualism of architectural form giving and aesthetic experience

In order to get a grip on the big area covered by Manhattan Waterfront Greenway, a number of localities or case-areas have been selected. The selection has been motivated by a wish that the areas combined are to cover the variation of architectural, spatial and program related diversities, which is included in this urban bikescape along the Manhattan Waterfront Greenway.

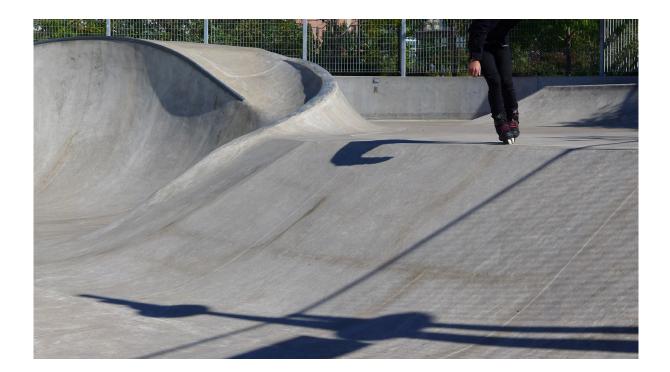
The analyses are highly inspired by Maurice Merleau-Ponty (1994), Gernot Böhme (1998) and by Juhani Pallasmaa's (2005) reflections on "haptic" architecture. In the book *The Eye of the Skin* from 2005, the seven senses of the body – muscles, bones, the skin, the ear, the eye, the nose, the taste buds – are mentioned, which according to Pallasmaa all are able to sense architecture (Pallasmaa, 2005).

In the actual analyses, the emphasis is in particular on light, sound, smells, wind and the impact of the terrain on the body, as mentioned previously. Bruun Jespersen's work on performative art in public places (Bruun Jespersen, 2011) and Bishop's writings about the phenomenological perception in installation art has also been a key to investigate the relation between body and space (Bishop, 2006). Observations Chelsea Waterfront Park, October 10, 2012:

A young man is bicycling from the north on Hudson River Greenway. Suddenly, he takes a sharp right turn across a small path leading to a skater ramp. He parks the bike and hauls a pair of roller skates out of his backpack. He is not as young as I first thought – possibly in his late 30s ... Now he takes a round on the ramp. Again and again the curves of the ramp and the strength of the body are tested. It is the body's exploration of the skater ramp, which is on the agenda (Marling, 2013).

### Fig. 6

Act architecture (Klingmann, 2007): The body is testing the skater ramp and itself – the relation between the body and the designed. PHOTO: GITTE MARLING



## Observations October 22, 2012:

The path passes a small grove in Chelsea Waterfront Park, where two young people have found a place to be. They are sitting very quietly on a rock. They are very absorbed in each other and do not notice passers-by. It is as if their fascination with each other rubs off and invests the space with soul. When I later pass this place, I experience it as a romantic place, even though the young people have left it long ago (Marling, 2013).



This observation, as well as the observations of the skaters and the people who exercise using the bike trails and the spaces linked to the bike trails, show how they bodily and emotionally use the spaces. They create their own space with its own rules (Eiler Rasmussen, 1957).

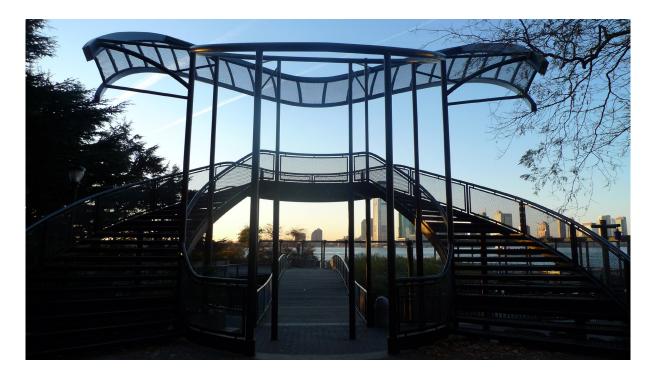
The two young people had climbed a small rock, or, to be more precise, an art installation consisting of black sand and some rocks. The rocks create a small enclosure open to the path and the river. The sand spreads out on the lane. It is the same place, where my wheels suddenly hit the black sand, and the bike almost came to a halt on my first bike trip along the urban bikescape. What seems to be an irritating obstacle was an art piece with designed obstacles. Claire Bishop (2006) describes how installation

#### Fig. 7

Atmosphere (Böhme, 1995) / "heightened perceptions" (Bishop, 2006): Two young people invest the place with soul and create a particular atmosphere. They are experienced while biking through the heavy black sand of the art installation.

PHOTO: GITTE MARLING

art are creating a state of "heightened perception" in the audience and that artists use the phenomenologically oriented way of creating spaces as an aesthetic strategy. She points to the sensing human being who is brought in close contact with all senses and the moving body when experiencing art. The observations show that several spaces in the urban bikescape along this greenway are designed with the aim to heighten the perceptual system.



Even though performative architecture, art and urban design set a stage for the experiences that requires interaction from the audience, it is nevertheless essential for architects, artists and urban planners to know what generate the aesthetic experience and how projects and works are perceived (Marling, 2012; Bruun Jespersen, 2010). In the process of clarifying this question, inspiration can be found in the phenomenological work by Merleau-Ponty, among others. Merleau-Ponty draws attention to the importance of our senses as the way through which we experience our surroundings. At the same time, he considers the senses as a significant part of the body. This implies that individuals do not only experience, but also actually define space and their surroundings via the body and the senses. The bodily presence creates and defines space. The space acquires significance and meaning (Merleau-Ponty, 1994).

The different areas of Manhattan Waterfront Greenway acquire meaning to the users, through their playful exploration of the surfaces, the architectonic elements and the installations of the space. Furthermore, the mood can influence the experience, as we also saw in the example of the two young lovers on the stone. The scenery, the light but also

#### Fig. 8

New architectonic art installations "reduce the scale" and contribute to the total aesthetic experience of architecture and to a re-interpretation of the space. Passing by the installation frames the view. The installation is experienced with the speed of the bike. (Bruun Jespersen, 2011).

PHOTO: GITTE MARLING

their relation to each other and the place created a specific atmosphere. Many artists and architects work consciously with creating a particular ambience or mood. In his research related to mood as aesthetic concept, Böhme defines atmosphere as follows: "Atmosphere is something between the subject and the object; therefore an aesthetic of atmosphere must mediate between the aesthetic of reception and the aesthetic of the product or the production" (Böhme, 1998).

Atmospheres fill spaces and places. They can be highlighted with many different adjectives, like a joyful, tense, sad, obscure atmosphere, etc. In other words, we experience atmospheres as "Quasi-objective, whose existence we also can communicate with others. Yet they cannot be defined independently from the persons emotionally affected by them; they are subjective facts" (Böhme, 1998).

The bike trail runs through very diverse designs of urban spaces and urban landscapes. The designs are influenced by various trends in landscape design from the last 25 years. In a small bay at South Cove just north of Battery Park, EEK architects have created a mobility park or an urban bikescape where the architectural effects employed consist of a natural presence of meadow plants, grasses, bridges, platform and effect lighting.

Wooden bridges lead the bicyclist across water and plants. It is possible to smell the vegetation, hear the water and feel the wind. It is also possible to pause by a platform, from where there is an open view of the river and the sea. When bicycling past the installation it is experienced like a "frame" of the view. The architects have intended to create a vista that can be experienced when passing by as well as when pausing.

South Cove juxtaposes the built and the natural, the land and the water, it is a public place, which allows space for reflection and private experiences and offers multiple choices as the visitor moves through the site.

The intention is to overlay these diverse experiences in a park that bring the visitors into direct contact with the waters of the Hudson River... the organic form is purposefully contrasted against the built environment (EEK Architects, 2012).



# Conclusion: *Urban bikescapes* – a new urban architectural typology

In the introduction, the question was raised about how an urban bikescape can be understood and analyzed. The paper suggests analyses and approaches to architecture as structure, gestalt and links – as aesthetic experience and as haptic architecture, which means architecture for the body.

The paper demonstrates that an urban bikescape is a new urban architectural typology, which is more than a bike lane transporting people from A to B. It represents a design related coherency of a mobility space in the form of a network of paths for bicyclists and pedestrians, connecting new urban parks, buildings and installations. An urban bikescape links to new and to old urban spaces and building complexes. Thus, it merges and links spaces for mobility and spaces for urban life, recreation and social interaction. An urban bikescape opens the city mentally and socially, while creating new zones for interaction. It is therefore, with Haajer's and Reijndorph's (2001) terminology, a new type of public domain, where social and cultural exchange is possible. The programs and variations of these play a large role for the quality of openness and diversity.

An urban bikescape is architecture for the body. Bike trails and walking paths of different kinds are negotiated with muscle power, which influences the experience. In the case study of Manhattan Waterfront Greenway, further efforts have been made to use materials and designs, which support the haptic experience.

#### Fig. 9

The new design concept in South Cove offers the users and the bicyclists an experience of being outside the city in a river landscape, in spite of the fact that they are actually in the middle of a pulsating metropolis just a few meters away from the polished surfaces of the Financial District. The analyses of the area in question show that a bike ride through it provides new urban experiences, because the design has aimed at creating architecture and urban landscapes with marked, aesthetic qualities in the form of changing rhythm, surfaces, open and closed spaces, scale and materials. Furthermore, the design aims at creating a drama of visual impressions.

The many programs vary in content. Here are historical places, memorials, picnic areas and sport fields. This design is for movement, where both time and movement are essential for experiencing it. The significance of the concept *time* for the architectural analysis has been pointed out. Time is very significant for the reading of the transformation of a space, and for the production of meaning and significance of the space, in a process of change. This is expressed through new programs, different use and through new architecture and aesthetic experiences. Time and aesthetic experiences are linked.

Finally, the impact of movement and mobility on the aesthetic experience has been emphasized. Through serial visions the visual impressions has been integrated into a narrative of the city, the field and the place.

This is however not the full story about the urban bikescapes. Methods related to traffic planning and urban planning would provide more technical and strategies insights. Similarly, a more qualitative investigation of urban life along the route could provide more knowledge about the cultural and social significance of the project.

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