

SHIFT:

EXPERIENTIAL PUBLIC SPACE
AT THE PERIPHERY
OF COPENHAGEN

Erica Brissenden
University of Washington
College of Built Environments
Department of Architecture
Master's of Architecture

Thesis Committee:
Robert Hutchison (chair), University of Washington
Jennifer Dee, University of Washington
Cath Brunner, 4Culture

Shift: Experiential Public Space
at the Periphery of Copenhagen

© Copyright 2014
Erica Brissenden

Erica Brissenden

A thesis
submitted in partial fulfillment of the
requirements for the degree of

Master's of Architecture

University of Washington

2014

Committee:
Robert Hutchison, chair
Jennifer Dee
Cath Brunner

Program Authorized to Offer Degree:

Master of Architecture

University of Washington

Abstract

This thesis explores unusual public space and its positive effect on the human psyche. Documenting public space in Copenhagen, Denmark has exposed the periphery condition (between the urban and suburban) as unresolved, and lacking any particular public quality. Design through sensory response and shift in perception, as done by artists Ann Hamilton, Olufar Eliasson, Anish Kapoor, has driven my architectural response to public space at the periphery.

The proposal connects the city to the Harbor of Copenhagen, using the water as a medium for experiential quality. There are a series of interventions that makes engaging the water publicly accessible.

Shift: Experiential Public Space
at the Periphery of Copenhagen

Erica Brissenden

Chair of Supervisory Committee:
Lecturer, Robert Hutchison
Department of Architecture

My deepest thank you to

Robert Hutchison
Jennifer Dee
Cath Brunner

who unraveled and wrapped up my architecture,
who guided and discussed at all lengths,
who taught with diligence and contemplation.

to my mother, father, and brother
to my finance Brenton
to my best friend Sarah

for holding me up in all matters.

to Nana, Michele, and Steve,
for making graduate school a possibility,
for giving me this incredible journey.

to the ScanDesign Foundation
for introducing me to Copenhagen.



Figure 1. Typical urban block at the periphery of Copenhagen

CONTENTS

1. Introduction	04	6. Copenhagen's Harbor: Connecting the city	88
Third Form definition		Development	
Perception of a city		Pulse of the city	
2. Approach to Public Art	10	Industrial port to civic harbor	
<i>International Case Studies</i>		Inlets	
<i>Anish Kapoor</i>		7. Copenhagen's Urban Condition	66
Perceivable space		City center to periphery	
		Between urban and suburban	
<i>Olufar Eliasson</i>		Courtyard typology	
Bodily perception		8. Copenhagen's New Residential Districts	111
		Islands Brygge	
<i>Ann Hamilton</i>		Periphery condition	
Comfort in togetherness		Site map and photographs	
		Adopted master plan	
<i>Michel Corajoud</i>		9. At the periphery: Thesis Site	125
Between city and nature		Site map and photographs	
		Environmental maps	
<i>Janet Echelman</i>		10. Design Proposal	147
Familiar in the unknown		Concept	
		Site plan	
<i>James Turrell</i>		Sections	
Perception with light		Visualizations	
3. Third Form Principles	40	Conclusion	
<i>Perception</i>		Appendix A.	
<i>Attraction</i>		Water's Sound	
<i>Dissipation</i>		Video stills + Link	
<i>Contradiction</i>		Appendix B.	
<i>Autotelic</i>		Traditional bathing	
4. Denmark	54		
Flatness of Terrain			
Quality of Light			
Art of Hygge			
5. Copenhagen's Public Space	66		
<i>Case studies</i>			
Strøget, Nørrebro bridge, Meatpacking			
Superkilen, Nørrebroparken			
Linearity			
Public space at the periphery			

INTRODUCTION

We need places that are more than functional spaces for physical activity and ecological balance. Places that also offer spiritual relief, emotionally and space to dream; things that today are more commonly found in cinema or art but that, in my view, can equally be provided in outdoor spaces.¹

- Rein Cano, *Topotek1*

PUBLIC SPACE

The city is made up of familiar elements: streets, buildings, cars, people, bikes, and trees. These commonalities are knit together to paint an image of an urban character we can all imagine. These conditions can be found in every city in the world, regardless of size or location.

There is also the space between buildings where the urban block opens to create a wide range of public venues diverging from the grid. Currently, these spaces provide a chance to mingle, to meet a neighbor by happenstance, or set up a picnic with some friends in the park. It provides us with a venue for social interaction, a backdrop for everyday life.

This thesis explores unusual public space and its positive effect on the human psyche. Documenting public space in Copenhagen, Denmark has exposed the periphery condition (between the urban and suburban) as unresolved and lacking any particular public quality. Design through sensory response and shift in perception, as done by artists Ann Hamilton, Olufar Eliasson, Anish Kapoor, has driven my architectural response to public space at the periphery. The proposal connects the city to the Harbor of Copenhagen, using the water as a medium for experiential quality. There are a series of interventions that makes engaging the water publicly accessible.

Third form – a quality of heightened perception found in unusual spaces.

The third form creates experience through bodily perception and an engaging manner of interaction in a manifested space. It allows an escape from reality and admittance into the unknown to achieve palpable response. It is neither art nor architecture, but a quality that cannot be defined as a physical thing.

PERCEPTION OF A CITY

I am interested in breaking from the common cityscape to explore another version of shared space. This thesis explores unconventional ideas about place making, driven by experiential response rather than function. It is an attempt to escape the ordinary, through the lens of architectural intervention in public space. It is about perception of space through atmosphere, physical sensation and emotive space.

Looking for a term which could help define this idea, I have found the “third form” that Michel Corajoud uses in his description of *Water Mirror* in Bordeaux, France. The project lies somewhere between city and nature, not quite belonging to either realm. It explores how to experience the cityscape in an atmospheric way, using water and mist to create space, identity of place, and inspire joy, reflection, and awareness.

I am slightly altering this definition – the third form is not the building or street, nor art or architecture, but the space between. It is something out of the ordinary and engaging. It is a quality focused on bodily perception in public spaces rather than function. The third form explores how a person can experience a space where sense, awareness, and response are primary. It is about creating an atmospheric quality within the public realm, similar to the feeling produced from a beautiful work of music, dance, or art. The focus is on the individual bodily experience.

A shift toward perception [the ability to hear, see, or become aware of something through the senses] in public space is largely missing from the public realm.



Figure 2. Water Mirror by Michel Corajoud
Bordeaux, France

PUBLIC ART:

INTERNATIONAL CASE STUDIES

ESCAPE

Where is the chance to experience the unfamiliar?
Where is it possible to escape reality for just a moment? And
what effect does this surrealism have on our psyche?

In this section, I look at six public works by artists that focus on perception and social experience in their work. These projects encompass the third form. Each work is different and each artist approaches the project in a unique way. They explore ideas of opposite, seeing, reflection, togetherness, journey, and production of space.

The artists do not work within the realm of urban design or master planning, yet a high quality of public space is achieved. They are also outside of programmatic requirements.

They focus on the individual to create an experience that is out of the ordinary, a way to escape the everyday. The work is ephemeral, fleeting, and different for each person visiting the site. These artists find solace in the way a person might interpret and explore their work. The result is unknown, and that is part of the attraction. The projects themselves are explorations of the human spirit.



ANISH KAPOOR

**PERCEIVABLE
SPACE**

Title: Cloud Gate
Location: Chicago, USA
Date of completion: 2004
Material: Stainless steel
Size: 82 ft long, 50 ft wide, 40 ft high

Figure 3.

object and its inverse

Anish Kapoor explores a thing and its opposite. He built two large bowl shapes and placed them opposite of themselves. What he saw was a surprise, the space between was actually filled and suddenly a kind of framed room appeared. By creating a border, a volume of air materialized, filling not emptying.

This is where the inspiration for his work comes from. He says, "Sculpture is about a thing and its opposite, the heaviness of it and its negative."²

He is fascinated with the idea of the inverse made by physical objects. How can something do the opposite of what is was intended to do? It is meant to empty, but instead it fills. It is meant to reflect, but instead it absorbs.

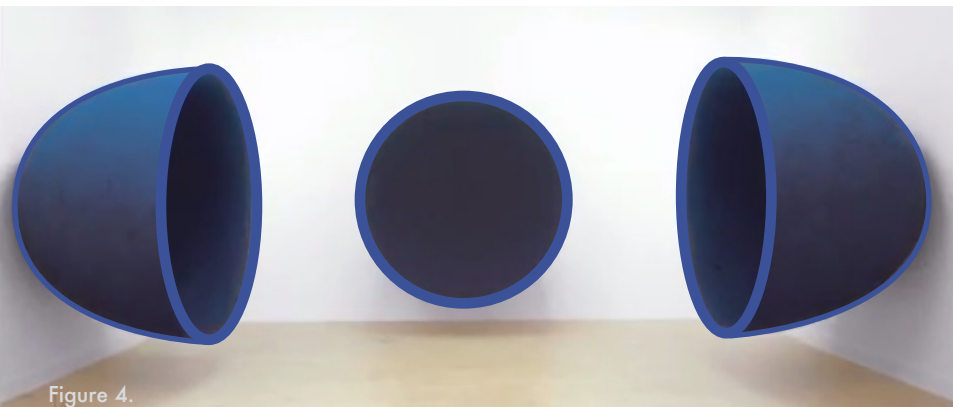


Figure 4.

object as landscape

Cloud Gate, his most famous work, is an object that disappears into the city. It is a reflection of its surroundings, and of the people viewing it. The object becomes the landscape.

When an object makes space it inspires a sense of awareness within the viewer, because the invisible is somehow exposed. Something is there. The art is intended to address the viewer, and this is accomplished by creating a vortex of perceivable space.

I view architecture as an extension of ourselves in rational form, and art as an extension of emotion, internal suffering, and irrationality.³

- Anish Kapoor, Museum of Contemporary Art Australia, Public Lecture 2012



OLAFUR ELIASSON

BODILY
PERCEPTION

Artist: Olufar Eliasson
Title: The Weather Project
Location: Tate Modern, London, UK
Date of completion: 2003 (temporary work)
Material: Monofrequency lights, projection foil, haze machines, mirror foil, aluminium
Size: 26.7 m x 22.3 m x 155.4 m

Figure 5.



Figure 6.

renewed sight

Olufar Eliasson's work is about engaging and seeing. He explores the way the body experiences space and what may become revealed through that experience. If the object of investigation can be occupied, or viewed in a multitude of ways, it becomes dynamic giving the viewer a sense of involvement. The piece is more interactive, accessible, and relates to the viewer.

bodily perception

He explores specific conditions that can be reinterpreted and manipulated to our own understanding. The work reveals the invisible, for example, the exploration of a rainbow. It is something we know and have seen but, how can the rainbow be seen in a explored in a different capacity? His work in ARoS Museum in Aarhus reveals the encompassing color and interiority of a rainbow. Eliasson says,

We made the rainbow, it only exists because we made it. We project it, rather than the sun and air projecting it on to us. We are designing a particular way of seeing, a conscious view.⁴

Title: Colour Circle Kaleidoscopic
Location: museum installation
Date of completion: 2009
Material: Steel, stainless steel mirror, coloured glass
Size: 191 x 160 cm, ø 82 cm



Figure 7.

correlation and discovery

In another exhibit, he pairs water drops with light. Each drop corresponds to a flash of light: by addressing the two senses of sight and sound simultaneously, suddenly there is an awareness of the measuring of time. You can literally see time passing through the blinking light. Time is revealed: you see what you normally do not.

reinterpreting phenomena

The work is about awareness of body: creating a temporal relationship between subject and object. He also attempts to define phenomena and make it accessible through reinterpretation. Eliasson believes there is no separation between body and mind, and that the viewer is the most important part of any work. That is why the works are about engagement and experience, they only exist to reveal a new way of seeing, to bring awareness of self and awareness of surroundings.

Title: Your Rainbow Panorama
Location: Aarhus, Denmark
Date of completion: 2011
Material: Color Glass
Size: 360° elevated walkway, 150 m long



ANN HAMILTON

COMFORT IN
TOGETHERNESS

Title: The Event of a Thread
Location: New York City, USA
Date of completion: 2012
Material: Fabric, Swings, Cable
Size: Park Avenue Armory

Figure 8.



Figure 9.

presence of gathering

Ann Hamilton questions: How can we be together?

Within the context of the digital age where we are increasingly becoming conditioned to digital social interaction, how can public space provide a comfortable venue for the collective as well as the individual? She describes *The Event of a Thread* as interactive, where a visitor can come to swing and see their movements literally transcribed onto the giant floating curtain.

Swinging produces a sense of pleasure, and people give into it. The interior of the Armory became like a park, where there was a sense of duality in intimacy and anonymity, a quality of solitude but also congregation.⁵

We can feel our presence in a much larger context, across time and space. There is comfort in the fact that many have done this before us and many will continue after us. The work also uses sounds, as a way an intervention. Ann Hamilton tries to create tactile experience, which isn't always touch.

The piece provides an option for a different activities. It is experiential rather than referential. All you need to understand, to participate, is your body. She sat for days in with the work, and could watch people using the space in all different ways. People were able to give back to the piece, seeing themselves change it, but also others. Though this physical act there is a sense of connection and confidence in a total stranger, in that you are experiencing the same thing.



MICHEL CORAJOUD

BEAUTY

Title: Water Mirror
Location: Bordeaux, France
Date of completion: 2009
Material: Slate tiles, water, mist
Size: Plaza at river's edge

Figure 10.



Figure 11.



Figure 12.

between city and nature

We can live without philosophy, without music, without love, but not so well. We can live without architecture devoid of any artistic element, but not so well.⁶

Michel Corajoud speaks of the importance of beauty in the city. Corajoud defines the space between city and nature, interpreting it as something ephemeral and elemental.

The project relates directly to the River Garonne flowing steadily just east of the site. The stone platform sits on the ground plane and is flooded with a sheet of water. Sometimes mist is pumped through the platform, and the city begins to fade away, leaving room for the sky and the mist.

Michel Corajoud says landscape architecture is poised between innovation and memory, ecology and abstraction, modernity and tradition. This tug between two polarities is something we all feel, shrouded in the complexity of it, sometimes we just need to lay down. This project finds a middle ground, and pulls from both sides. The experience is ephemeral, and out of the ordinary.

Title: Water Mirror
Location: Bordeaux, France
Date of completion: 2009
Material: Slate tiles, water, mist
Size: Plaza at river's edge



JANET ECHELMAN

SURFACE AND VOLUME

Title: She Changes
Location: Porto, Portugal
Date of completion: 2005
Material: Painted galvanized steel and TENARA® Architectural Fiber
Size: 300 ft. length x 240 ft. width x 160 ft. height (installation space)



Figure 14.

familiar in the unknown

Janet Echelman creates volumetric forms in lieu of heavy, solid materials. These forms are hoisted above the city allowing them to move and sway. They are a reflection of the weather, the surface revealing every ripple of wind. It is like the forms lose their objectivity, and become living creatures.

These objects create shelter, yet frame the sky in a way that you are connected to it. Echelman is attempting to create an oasis of sculptures found across the world, each shaped to its surroundings helping to bring identity and sense of place.

These nets are complex in their construction with thousands of knots manufactured using a synthetic engineered material, but they are somehow familiar in their materiality.

The weaving creates a depth and surface that we see everyday, for example in clothing hung out to dry in the wind. Here it is blown up in scale, overwhelming and all encompassing, instilling a sense of wonder in something resoundingly familiar.

Title: 1.26

Location: Denver, USA

Date of completion: 2010

Material: Spectra® Fiber, high-tenacity polyester fiber, and colored lighting

Size: 130 ft. length x 140 ft. width x 135 ft. height (installation space)



JAMES TURRELL

PERCEPTION WITH LIGHT

Title: Second Wind
Location: Cadiz, Spain
Date of completion: 2005
Material: concrete, sky
Size: skyspace

illusion and immersion

I want to create an atmosphere that can be consciously plumbed with seeing, like the wordless thought that comes from looking in a fire.⁷

James Turrell investigates perception with light. He says that we have a prejudice when we seeing, shaped by years of making our particular view of the world. His aim is to remove those prejudices, even for just a minute, and reveal another view.

He is a master of illusion and immersion. The walls that define the room begin to disappear, boundaries fade. The encompassing nature of the work pushes the viewer away from reality. It is difficult to describe what sensations and subtleties one may discover when visiting a skyspace, because each experience is made by the individual.

escape

In some cases, removing reality from the framework has been extreme, and people have literally fallen and hurt themselves. Before entry into a piece done in the 1980's, you had to sign a waiver verifying you are 18 years old, sober, and sane.

You have to be willing to let go a bit, to allow yourself to see and feel in a way that is unfamiliar. The power of illusion can speak to the human spirit when people experience complete saturation of an object paired with subtle changes over time.

The Roden Crater is located in the Arizona desert about one hour from Flagstaff. In 1975, Turrell purchased the land, and has since used the crater as his medium, craving tunnels and skyspaces into the earth. He tells a story through a sequence of volumes about the disconnection between your intellect and perception, where a shape will appear as one thing, and then turn into another.

*highly engineered way of seeing, crafted to reveal not hide

Title: Roden Crater
Location: Painted Desert, Arizona, USA
Date of completion: incomplete
Material: transformed earth
Size: natural cinder volcano

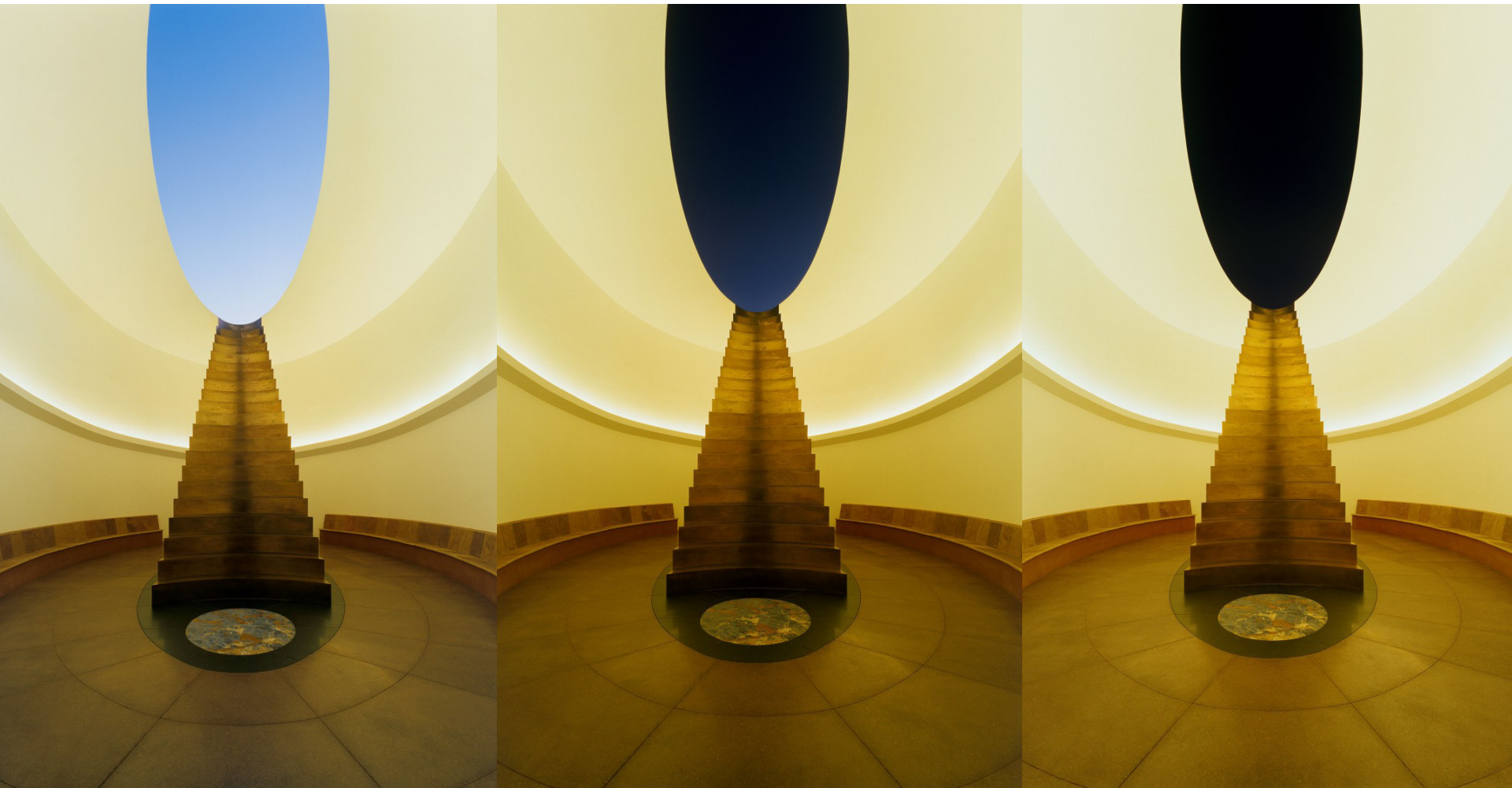


Figure 16.

THIRD FORM:

PRINCIPLES

He [Brancusi] brought with him something more than learning: the memory of childhood, of things observed not taught, of closeness to the earth, of wet stones and grass, of stone buildings and wood churches, hand hewn logs and tools, stone markers, walls and gravestones.

This is the inheritance he was able to call upon when the notion came to him that is art, sculpture, could not go forward to be born without first going back to the beginnings.⁸

Isamu Noguchi quoted by John Beardsley, *Earthworks*

How can architecture, art, and public space be integrated to produce better architecture?

I will define board principles of the third form - this framework is derived from case-studies, of object artworks in public places where a more abstract and obscure interpretation of place making occur. These are meant to be guidelines rather than prescriptive rules, as they are derived from observation and intuitive response.

The aim is to incorporate these ideas in design thinking, to expand my view of architecture as it relates to public space. These principles should be applicable to any architecture because they are an exploration of perception, and sense of place, which can be the driver of any project.

PERCEPTION



heightened experience where bodily senses [vision, breath, touch, voice, thought] become engaged.

This principle employs perception produced by a piece of art or architecture that is not simply observed but understood and experienced multiple ways. The piece reflects our desire to participate anonymously or as a group, to explore and react to its presence. Part of the experience is about how we interpret it, and how meaning can be derived through experience.

Artist: Olufar Eliasson
Title: The Weather Project
Location: Tate Modern, London, UK
Date of completion: 2003 (temporary work)
Material: Monofrequency lights, projection foil, haze machines, mirror foil, aluminium
Size: 26.7 m x 22.3 m x 155.4 m

ATTRACTION



the action or power of evoking interest, pleasure, or liking for someone or something, drawing people together.

The principle provides a proximity to others, where your movements and presence is reflected in them and in the piece itself. It is being together to observe, exchange, and engage. It is the accumulation of people that brings the place to life, and the piece changes because of the community. There is individuality in the collective, even anonymity. It is possible to see yourself reflected in the experience. Your presence is acknowledged by the piece itself.

Artist: Ann Hamilton
Title: the event of a thread
Location: New York City, USA
Date of completion: 2013 (temporary work)
Material: Fabric and cable system, sound
Size: Park Avenue Armory

PARADOX



a seemingly absurd or contradicting statement or proposition that when investigated or explained may prove to be well founded or true.

This principle is about questioning what we believe to be true or accept as common place. These ideas can be investigated through art or architecture, by starting with the familiar then discovering the unknown, or by exploring opposites that sometimes define truths. It is this contradiction that illustrates so many aspects of human nature and the mystery of life, where opposite things together somehow make sense and thrive in their union.

Artist: James Turrell
Title: Roden Crater
Location: Painted Desert, Arizona, USA
Date of completion: incomplete
Material: transformed earth
Size: natural cinder volcano

DISSIPATION

a fading of the physical piece, a shift in awareness to space and your relationship to it.

This principle is about fading the piece to the background and shifting the focus onto the people that use the space, individual engagement is primary. The experience is made by the collaboration between the site, context, and the form. The piece is not an object placed on a site, but the defining feature of the manifested space. It demands attention due to the shift in context or scale. It can transform the space in a big or subtle way.

Artist: Anish Kapoor
Title: Cloud Gate
Location: Chicago, USA
Date of completion: 2004
Material: Stainless steel
Size: 82 ft long, 50 ft wide, 40 ft high

AUTOTELIC

having an end or purpose in and not apart from itself [of an activity or creative work]

This principle is about self contained exploration, for the sake of itself. The purpose of the piece may be the piece itself and that is enough for its existence. This principle relieves the author from any programmatic or functional requirement, therefore opening up some possibilities. It is internally driven thought and contemplation of an idea. This principle allows for hypothetical relief from functional requirements. If you could live without rules, what would you do differently?

Artist: Olufar Eliasson
Title: Your Rainbow Panorama
Location: Aarhus, Denmark
Date of completion: 2011
Material: Color Glass
Size: 360°elevated walkway, 150 m long

Thesis is an adventure. It is a chance to take a risk, to investigate what really interests you. It forces you to accept the unknown, to become comfortable with it. It pushes and forces you to leave your comfort zone, it educates.

DEPARTURE

I started this project with an interest in unusual public space. These were spaces without retail or restaurants, but places where it was possible to become aware of your senses, your being, and your response to the immediate surroundings.

The five principles of perception, contradiction, autotelic, attraction, and dissipation were derived from public art projects done in unresolved and left over spaces. These projects revitalized public space, and allowed people to interact with space with heightened sensory experience, perhaps shifting perspective or contemplating a new thought. It is a chance to escape, to experience an unknown for a moment.

In these selective works, an idea is pondered and a form follows. These principles are not attached to programmatic constraints, which allows the artist more freedom to explore an idea.

I am arguing these principles can also be explored in architecture and urban design.

DENMARK

INTRODUCTION

In January 2014, I traveled to Copenhagen, Denmark to study Architecture at the Royal Academy of Fine Arts for six months. During this time, I studied Copenhagen's design approach to public space most famously established by Gehl Architects as a pedestrian oriented, human-scale space.

I found that public space within Copenhagen's city center is working very well. It is at the periphery of the city, between urban and suburban, that public space becomes challenging. These areas are rapidly changing from industrial to residential zones in order to account for Copenhagen's growing population. Adjusting to a new building typology has resulted in many leftover, unresolved spaces.

These leftover conditions at the periphery of the city can be found worldwide. This thesis is sited in Copenhagen, and the design approach is specific to it, but the principles and strategy of the third form can be applied anywhere.



DENMARK

Denmark is located in the Northern part of Europe, and acts as the gateway to the Nordic countries. The country is a collection of many islands, only minimally connected to mainland Germany through the island of Jutland.

Copenhagen is located at the eastern side of Denmark. It is directly connected to Malmo, Sweden through a 40 minute train which tunnels under the Øresund Sea and raises up to meet a bridge about half way through the trip. Currently, Denmark's economy is human-based services. In the past, the economy has been shipping and fishing, as well as farming and pigs.

This connection, and proximity to Europe, has made Copenhagen the economic hub of the Nordic countries. Denmark has 5.6 million people, Sweden 9.5 million, Norway 5.1, compared to the USA with 316 million people. Denmark is a socialized country with two to three political parties in power, and four to five additional significant parties. The system is in balance, with no party winning majority since 1901.

Living and studying in Copenhagen has revealed three qualities specific to Denmark: flatness of terrain, quality of light, and the art of hygge. The combination of these things cannot be found elsewhere in the world.

Figure 22. Map of Denmark - country of islands

FLATNESS OF TERRAIN

Denmark's topography is extremely flat and the water bodies that surround it are also shallow. Between Denmark and Sweden is the Øresund Sea which has a maximum depth of 18 meters (60 feet). This narrow channel was a valuable asset to Denmark, historically a protected and heavily taxed passage from the Nordic and Baltic countries to mainland Europe.

The unbroken horizon line reveals the absolute flatness of Copenhagen, and more extensively Denmark. Unlike its neighboring Norway and Sweden, it is the flatness that defines Denmark and without it Copenhagen's cycling culture would not exist.

Looking outward from any bridge in Copenhagen you can see the merging of land and water. The added height of the bridge exposes the horizontal that dominates this land.



Figure 23.



QUALITY OF LIGHT

In an essay “Things take time and Time takes things: The Danish Landscape,” Steen A.B. Høyer best describes the quality of light,

Perhaps the one ingredient of the Danish Landscape that is uniquely native is the quality of light.

The Danish light is special in its quality of cool, Nordic character, even though it varies considerably from locality to locality.

Surrounded by water and featuring a damp climate, this kingdom of islands is bathed not only in a soft light with many middle tones but also a particularly intense light that is experienced most clearly on the coastal spits and peninsulas.⁹

Many painters have tried to capture this fleeting quality, most famously the Skagen painters during the 1850s. At the turn of the nineteenth century, Vilhelm Hammershøi painted interiors in Copenhagen, and very accurately portrayed the filtered greys that appear during the winter months.

The quality is subtle yet immediately recognizable once you have spent time in Copenhagen in the winter time. Hammershøi’s paintings are almost haunting in that way; they capture something that is latent in the Danish landscape.

VILHELM
HAMMERSHØI

INTERIOR WITH
YOUNG MAN READING

1898





THE ART OF HYGGE

How do the Danes get through their long, cold, and very dark winters? The answer is hygge, roughly translated to English as coziness.

They use light and candles to bring warmth to their homes, restaurants, and streets. It is a country of candlelit glow. They gather together, sharing mulled wine and cold beer. They enjoy a meal and chat about life's big and small moments.

The word hygge originated in Norway, and was first translated into Danish writing at the end of the eighteenth century. The concept meant well-being and it can be found everywhere in Danish culture.

Danish hygge is most recognizable in the winter, but can be found in the summer months as well. Meeting in the park, taking a dip in the Harbor, barbecues with friends, or cycling the coast, it is all done in the Danish way.

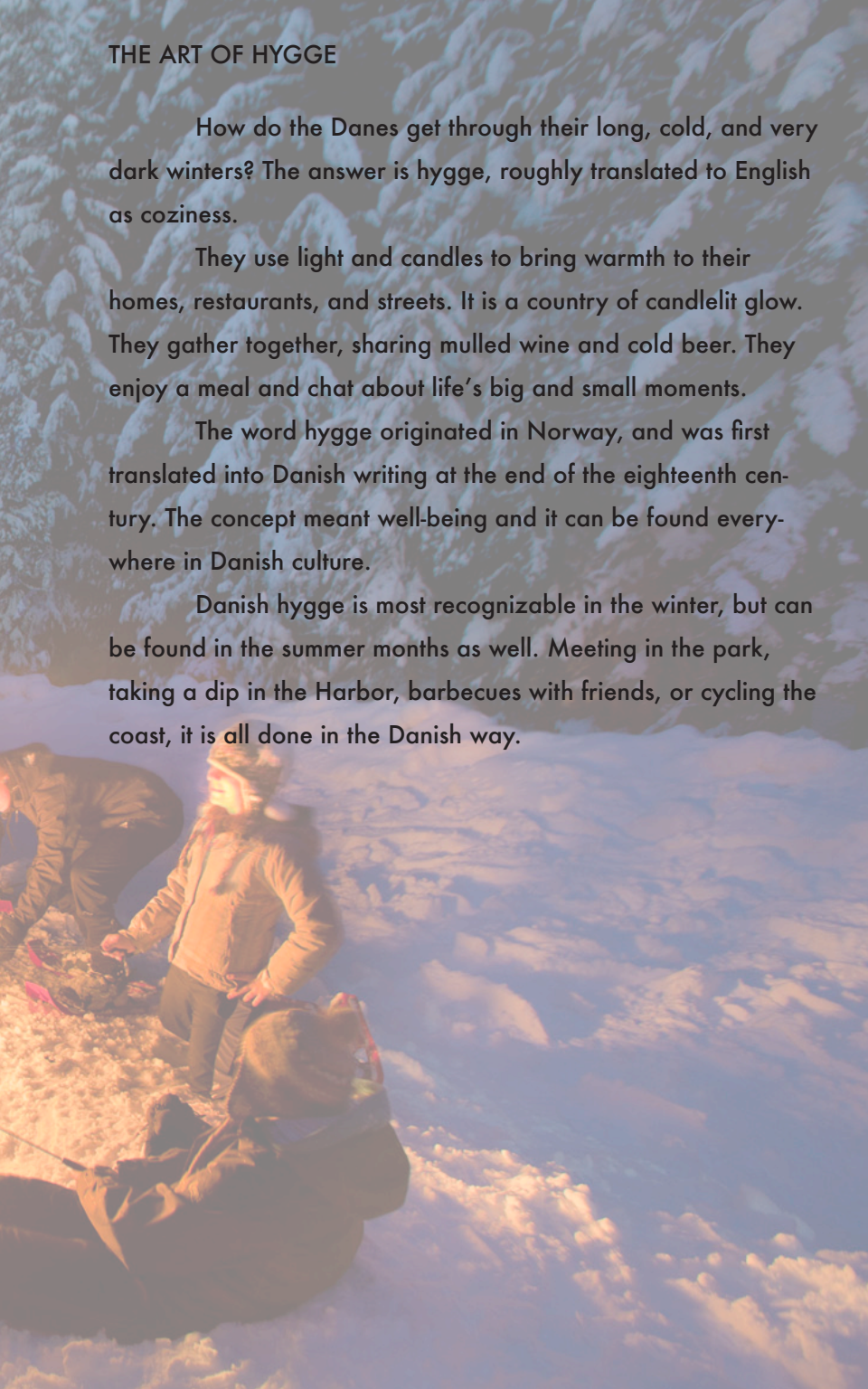


Figure 26.

COPENHAGEN'S PUBLIC SPACE:

CASE STUDY

To be able to move about easily and confidently, to be able to linger in cities and building complexes, to be able to take pleasure in spaces, buildings, and city life, and to be able to meet and get together with other people - informally or in more organized fashion - these are fundamental to good cities and good building projects today, as in the past.¹⁰

Jan Gehl, *Life Between Buildings*

The public sphere is socially produced. Characterized by its surroundings, it is constantly changing to reflect the charged atmosphere of the street, square, and the interstitial space between the building and the street. A place becomes 'public' when it is used by people in a social capacity.

In *The Imperative of Public Space*, Niel Smith and Setha Low discuss a comprehensive definition of public space,

A multiplicity of divergent meanings attaches to 'public,' 'public space', and the 'public sphere.' By 'public space' we mean the range of social locations offered by the street, the park, the media, the Internet, the shopping mall, the United Nations, national governments, and local neighborhoods. 'Public space' envelops the palpable tension between place, experienced at all scales in daily life, and the seeming spacelessness of the Internet, popular opinion, and global institutions and economy. It is also not a homogenous arena: The dimensions and extent of its publicness are highly differentiated from instance to instance. Legally as well as culturally, the suburban mall is a very different place from the national park or the interior of a transcontinental airliner. Clearly then, the term has a broad definition.¹¹

Every city is full of unrealized potential in terms of active public spaces. This section looks at current approaches to public space using Copenhagen as a case study. These examples highlight Jan Gehl's framework established in the 1960s, and how it has been expanded to include a variety of transformed public spaces.

How can we build upon current methods to encompass another form of public space - especially one that addresses the leftover and residual parts of the city? The aim is to build upon what we have learned from Gehl and others, to present a new approach to public urban space: *the third form*.

Copenhagen stands today as one of the worlds most pedestrian friendly cities. It is a leader in sustainability, well used cycling paths, and human scaled spaces.

In the 1960's Jan Gehl set forth urban design and architectural strategies which could be implemented within a certain context to create lively and attractive public spaces. These guidelines manifested in a prescriptive approach, i.e. suggested building heights, traffic volume, seating placement, organization of bike racks, parking meters, width of sidewalks, etc.

In 1962, pushed by Gehl and implemented through the Danish government, Copenhagen established its first pedestrian only street which was hotly contested at the time. Strøget, the city's primary shopping street, is located in the urban core and showcases Gehl's pedestrian-orientated urban space strategy. The project tames and controls traffic, reclaiming car streets and giving space back to the pedestrian.

After fifty years, these methods are well established and accepted within a particular boundary of urban space, especially in the eighteenth century typologies which can be found at the core of most European cities.

Once we move outside of that boundary, what approach can we take with the left over space, space found at the periphery, where urban character begins to fade but density is still high. What methods are appropriate where the eighteenth century typology falls away, and the street opens to creates another condition?



Figure 27. Strøget – Copenhagen’s first pedestrian only street
photo taken on a winter’s day in the afternoon

RECLAIMING PUBLIC SPACE : NØRREBRO BRIDGE

Due to the work of Gehl and many other urban designers, Copenhageners have come to use public space in a very unique way. There is a certain mentality where people can identify qualities and literally claim space that would otherwise be residual. Nørrebro bridge is a perfect example of reclaimed public space.

Here we look at Queen Louise's Bridge known as Nørrebro Bridge, which spans the east and west neighborhoods of Copenhagen. The bridge was intended as a transportation corridor, quickly moving cars and buses across the city. In 2011, the bridge underwent a transformation in attempt to increase cycling traffic. The bike lanes and sidewalks were widened, and the car traffic decreased to only two lanes.

This is an example of transportation design, not especially intended for pedestrian use, which has produced surprising results. The bridge is now a popular hang out and proves quality public space can be achievable outside of the Gehl framework. Even under the opposite circumstances of what Gehl would consider productive where cars speed by, the sidewalks are out of proportion, and there are no immediate shops or restaurants.

Nørrebro bridge offers a different form of public space, made successful by its exposure to sun, and high density of people. It has become a spot to be seen, it is likely you will run into a friend.



Figure 28.



Figure 29. Nørrebro Bridge - a place to be seen
Transit corridor turned social magnet

RECLAIMING PUBLIC SPACE : MEATPACKING

The city also boasts transformed areas which have transitioned from industry oriented sites with parking lots, wide streets, and low functionalist warehouse buildings from the 1930s. In the early 2000s, the meatpacking district began its transformation and is now one of the trendiest parts of Copenhagen, filled with popular restaurants and nightlife, as well as cultural institutions and sports facilities.

Even though this area is not ideally suited for quality pedestrian life, it still hosts some of the cities most interesting urban spaces regardless of the scale of the buildings and the street. This is even more proof that residual urban spaces can be transformed with alternate methods. It also proves that one attractive establishment can change an entire neighborhood by drawing others to it.

Looking outside of the scope of Gehl Architects, we can build a framework to deal with undesirable space outside of the city's core. It is clear many types of public places exist, but it is up to current urban design thinking to see what type of intervention may help to bring urban character, and indeed make a place public.

The success of the Meatpacking district comes from the adjacencies and amenities it offers, and also its proximity to the city center. Restaurants, clubs, and bars attract people.

The functions of this place are making it a success. Is it possible an urban space alteration can be driven by atmospheric quality and perception rather than functional amenities?



Figure 30.



Figure 31. Meatpacking - hot new urban district



Figure 32.



Figure 33. Superkilen

ALTERNATE PUBLIC SPACE : SUPERKILEN

This project is a variation on typical public space. It takes an otherwise challenging urban corridor and redesigns it, using color and patterning as a striking diversion from the street. The designers present another type of urban space in a collaboration between the disciplines of architecture, landscape and art (BIG, Topotek1, and Superflex).

Superkilen is located in an area of Copenhagen called Nørrebro. The project was implemented in 2012, and connects several city blocks, over half a mile, through its use of color and objects. The materials consist of painted concrete, and rubberized and grassy surfaces, as well as a collection of significant objects from sixty countries around the world.

This neighborhood is known for its culturally diverse population, and also the struggle of cultural, social and economic integration of its residents. The project attempts to highlight ethnicity rather than obscure it by bringing together the community through creating lively and developed public space.

A well-marked bike and walking path runs through the entire site, allowing people to move through this car free zone quickly or leisurely. There are several benches and places to sit, and also a variety of specific use spaces such as skate parks and barbecue pits.

This project is an example of contemporary public space design, using Gehl methods as a starting point and expanding on them, to integrate experiential and unusual forms. The Superkilen project exemplifies a rare approach to urban design where identity through object is a central component.

ALTERNATE PUBLIC SPACE : NORREBROPARKEN

Connected to Superkilen is a much different type of public space designed by Steen A.B. Høyer. The two spaces are linked with a bike line, and continue the linear quality of public space found across the city.

Høyer designed this space with subtlety. The textures and light filter differently through the seasons, change is meant to be reflected and recognized. The design language is not overwhelming or bold, and the site is simply organized through materiality. There is tactility, a chance to touch. It is not over-designed and people have ascertained parts of the site for their own interpretation.

Hoyer writes, things take time and time takes things, which accurately describes his approach in this park as a landscape architect. The park becomes layered with the passing of time.



Figure 34.

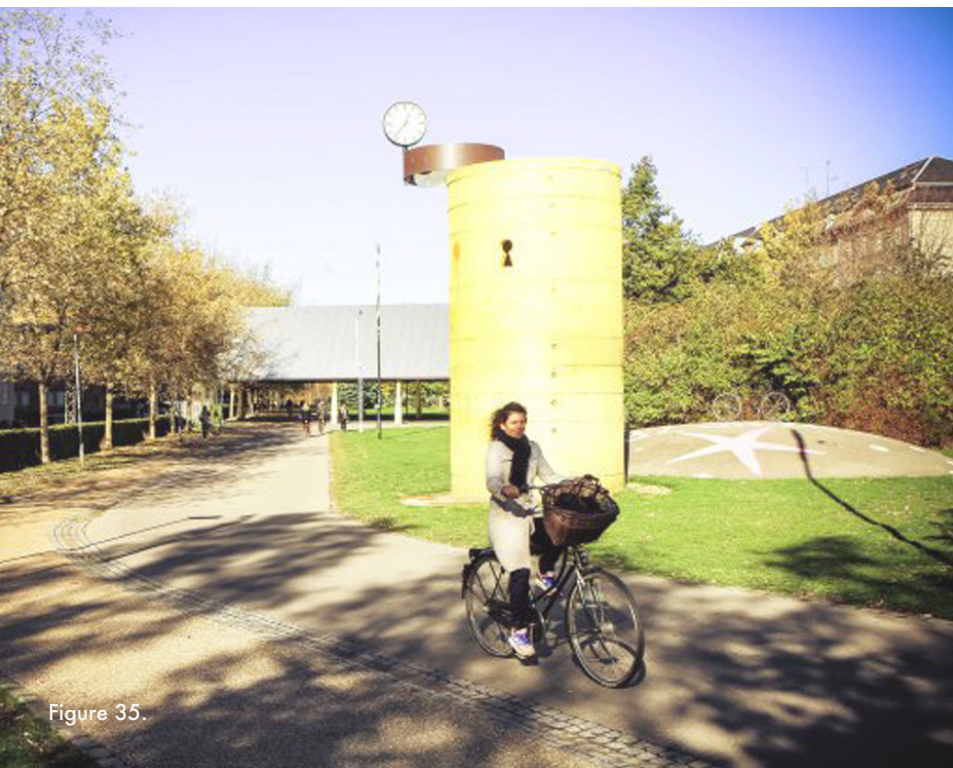
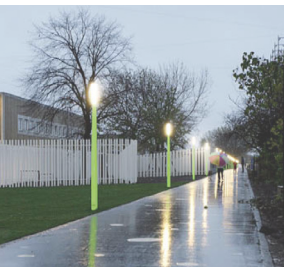


Figure 35.



PRAG'S BOULEVARD

DECEMBER

LONG WALKWAY WITH
POINTS OF ACTIVITY
FIGURE 36.



NØRREBROPARKEN

OCTOBER

CHANGE OF THE SEASONS
DANISH LIGHT
FIGURE 37.



SUPERKILEN

APRIL

BIKE CORRIDOR
COLOR AND OBJECT
FIGURE 38.



STRØGET

FEBRUARY

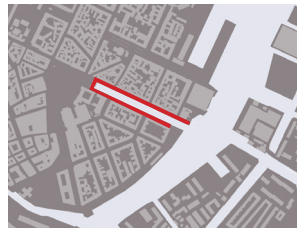
COPENHAGEN'S FIRST
WALKING STREET
FIGURE 39.



NØRREBRO BRIDGE

FEBRUARY

PROTECTION FROM THE ELEMENTS
WIND AND SUN EXPOSURE
FIGURE 40.



NYHAVN

FEBRUARY

HISTORICAL BUILDINGS
RESTAURANTS + BOATS
FIGURE 41.

ALTERNATE PUBLIC SPACE : LINEARITY

When mapping and describing these spaces, two things became apparent: year-round use and linearity.

Copenhagen is a wonderfully bright and warm place for about three months of the year. It is filled with public parks and they are used at capacity during the summer. However, the remaining nine months of the year can be relentlessly grey and gloomy. The Danish use *hygge* to combat winter melancholy, yet it rarely extends to outdoor space.

These mapped spaces offer access to the outdoors year-round by providing protected gathering space and benches as well as retail and restaurants in immediate proximity. It is possible to walk or cycle through these corridors and stop for a coffee along the way.

Linearity is ingrained into the grid of the street, and many of these places have been re-established as public spaces. It is possible to read linear space at the streetscape as well as at a city-wide scale.



SUPERKILEN

NØRREBRO
PARKEN

NØRREBRO
BRIDGE

STRØGET

NYHAVN

PRAG'S
BOULEVARD

DEPARTURE FROM CASE STUDIES : PUBLIC SPACE ON THE PERIPHERY

Copenhagen has a multitude of quality public spaces manifested in many variations. It also has leftover urban space, especially on the periphery of the cities core, as well as newly developed areas. In these instances, perhaps our current approach in urban design thinking is not adequate or appropriate. These spaces present a new set of conditions we have not fully dealt with when designing vibrant urban quality.

The case-studies serve as alternate forms of public space. They vary in form and function but are linked because they are successful in functional intervention as wells as perceptual and experiential exploration.

The thesis site, located just southwest of Islands Brygge, exemplifies many of the challenging characteristics found at the periphery of the city center, where the urban character begins to fade but density is still high. The surrounding buildings vary in style, scale, and are not related to each other. There is not a particular urban quality, the images could be taken anywhere. There is nothing linking these photographs to Copenhagen.

This site calls for another approach to urban design as it relates to architecture. This location is an opportunity to explore the relationship between two disciplines and to implement the third form as it relates to urban design and architecture.



Figure 43.



Figure 44

COPENHAGEN'S HARBOR: CONNECTING THE CITY

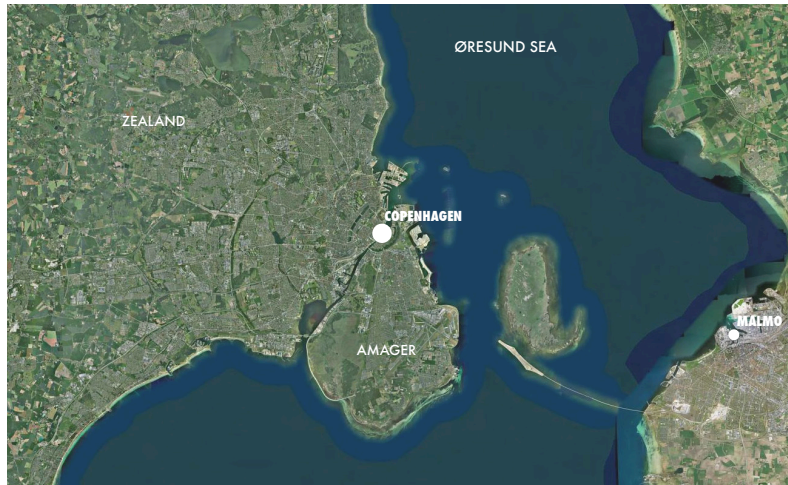


Figure 45.

Copenhagen straddles the islands of Zealand and Amager. The harbor runs through the center of the city. Currently, there are several bridges that span the harbor, especially at the city center. There are two pedestrian bridges in development.

The harbor's edge has been developed over 400 years, and has transformed from two separate land masses to a narrow channel. Amager is largely land fill brought from the north and south shores of Zealand. The city (signified in red) has grown outwards around the harbor.

This expansion has allowed for Copenhagen to feel like a continuous city. The water causes little interference or inconvenience as a cyclist, pedestrian or motorist. In fact, going over the harbor via bridge is a rare opportunity to gain height in the city, and allows for a more expansive view of the city.

The harbor also acts as a figural form, visually connected the north and south parts of the city. The inner city is at the center of the harbor, and moving outwards lays the periphery condition. The water works to give Copenhagen a continuity it would otherwise lack.

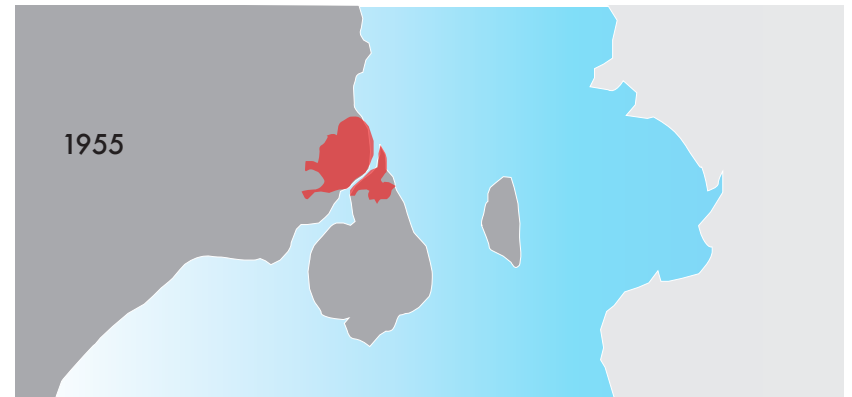
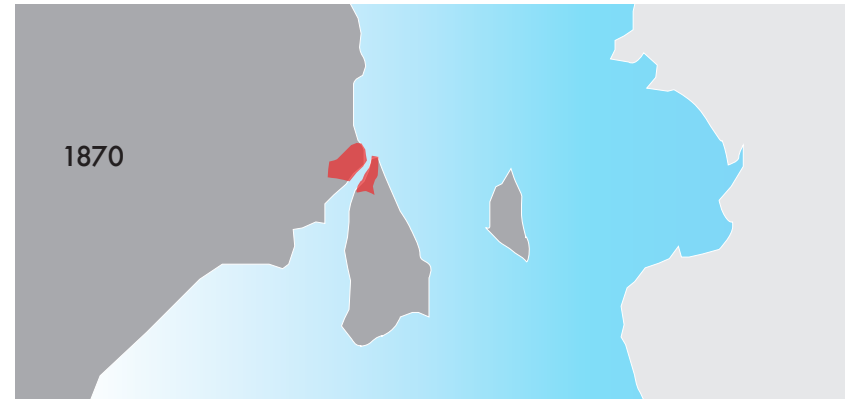


Figure 46. Red- the city grows around the harbor



Figure 48. Copenhagen Harbor by Moonlight by Johan Christian Dahl, 1846

INDUSTRIAL PORT TO CIVIC HARBOR

During the 20th century, the scale of the Harbor shifted from small vessels to large industrial barges and the harbor became a place for heavy commercial use. Industrial waste and sewage was dumped into the water, and it became polluted and plagued with oil spills and algae. Industrial buildings lined the waterfront, and the city turned its back on the harbor. It was no longer a place for everyday pedestrian use, but for industry.

In 1995, the Danish government started to revitalize the harbor's salt water. The municipality updated the city's sewer system; human waste water no longer dumped into the harbor. The run off from heavy rain-fall was also diverted and treated.

These improvements made the salt water safe for swimming and re-established the city's connection to the harbor. Today, many civic buildings line the waterfront. New buildings look outward toward the water, promenades are being developed and small swimming platforms are floated in during the summer months. The health benefit of swimming in cold salt water and then soaking in hot water or the sauna is being reintroduced into Danish culture. Bathing clubs are popping up.

There is a walking boulevard that spans much of the water's edge, as well as biking infrastructure that occupies most streets. Small vessel traffic is kept to a minimum, only private boats and a walk-on water taxi use the canal. These features, the cycling culture and the clean water, have put Copenhagen on the map as one of the world's happiest cities.

Adversly, there is still a major restriction in accessing the water. There are few spots where it is possible to touch the water without jumping in: a concrete wall lines the harbor.



Figure 49. Industrial Harbor



Figure 50. Water views 2014

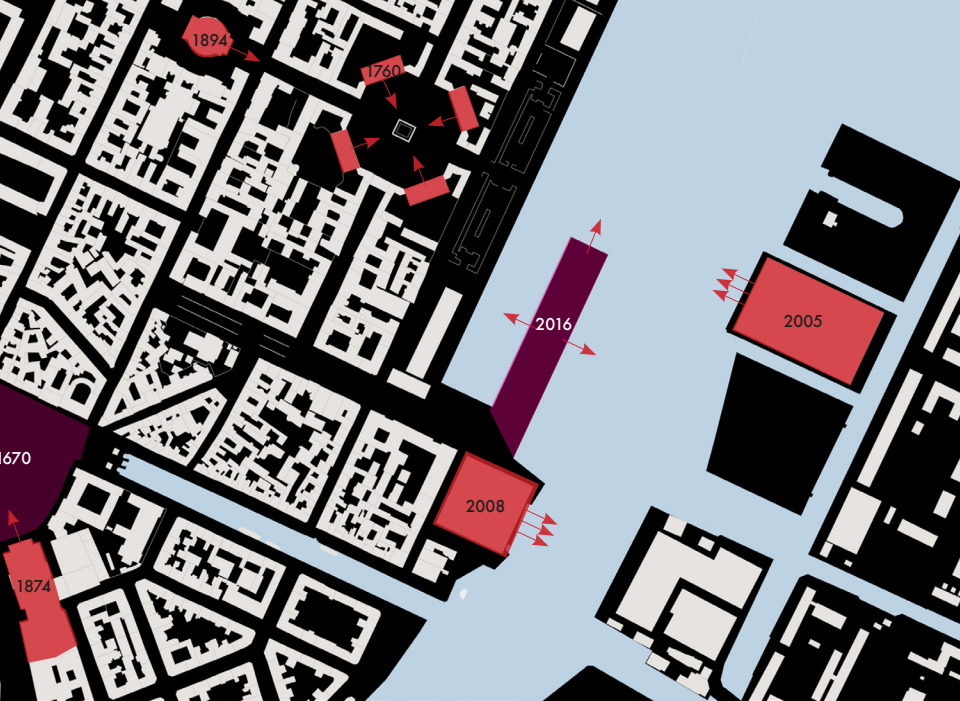


Figure 51. City center

■ PUBLIC SPACE
■ SIGNIFICANT BUILDINGS

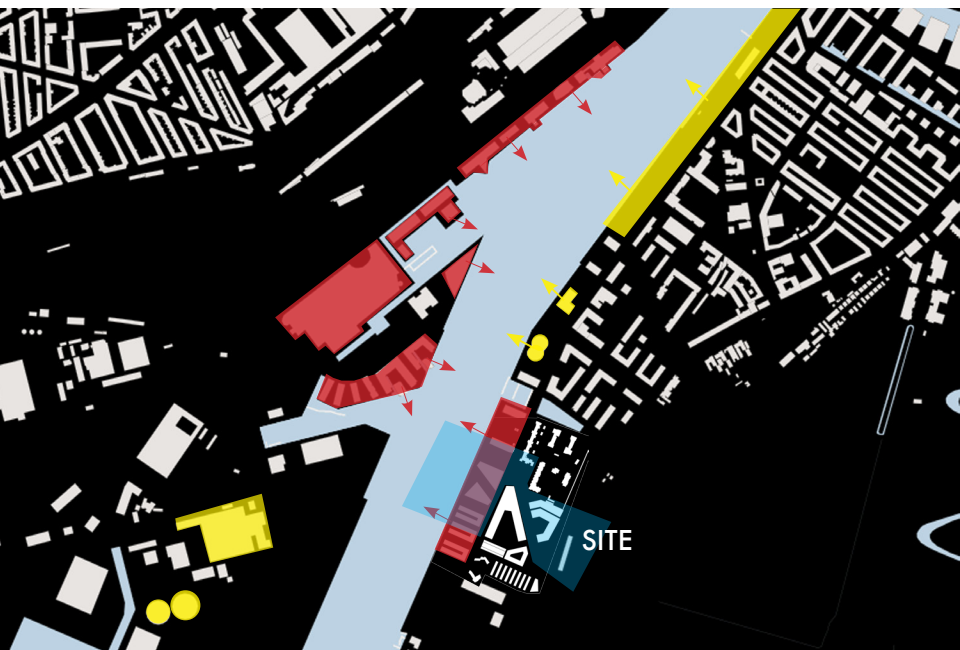


Figure 52. Periphery condition

■ REPURPOSED INDUSTRIAL
■ NEW DEVELOPMENT

ENGAGING WATER

This graphic describes the change in building orientation at the center of the city as well as at the periphery condition.

At the center of the city are many historically significant buildings including Amalienborg (the Royal Family Residence built in 1760), the Marble Church (1894), Royal Danish Ballet and Theatre (1874). These buildings face on to great public squares which used to hold food and goods markets. These spaces and buildings, built for the public, face inwards away from the harbor, and toward the city.

More recently, the Danish Royal Playhouse and the Royal Danish Opera House were built. Slated for completion in 2016 is a large public pier (next to the Playhouse) sited for greater use of the water front. These new structures face the water, their front door looks toward the harbor.

Further south, at the thesis site, are new residential buildings and public spaces. They all address the water by looking toward the harbor. This area, Island Brygge, is being developed as a new residential zone. The buildings are oriented to provide wonderful views of the harbor. However, the view, is still the only one way to engage the water. There is little possibility to actually interact or touch the water.

Copenhagen has clean harbor water. It is an immeasurable asset to the city and amenity to the public. There are many more opportunities to engage with this incredible resource.



Figure 53. Key

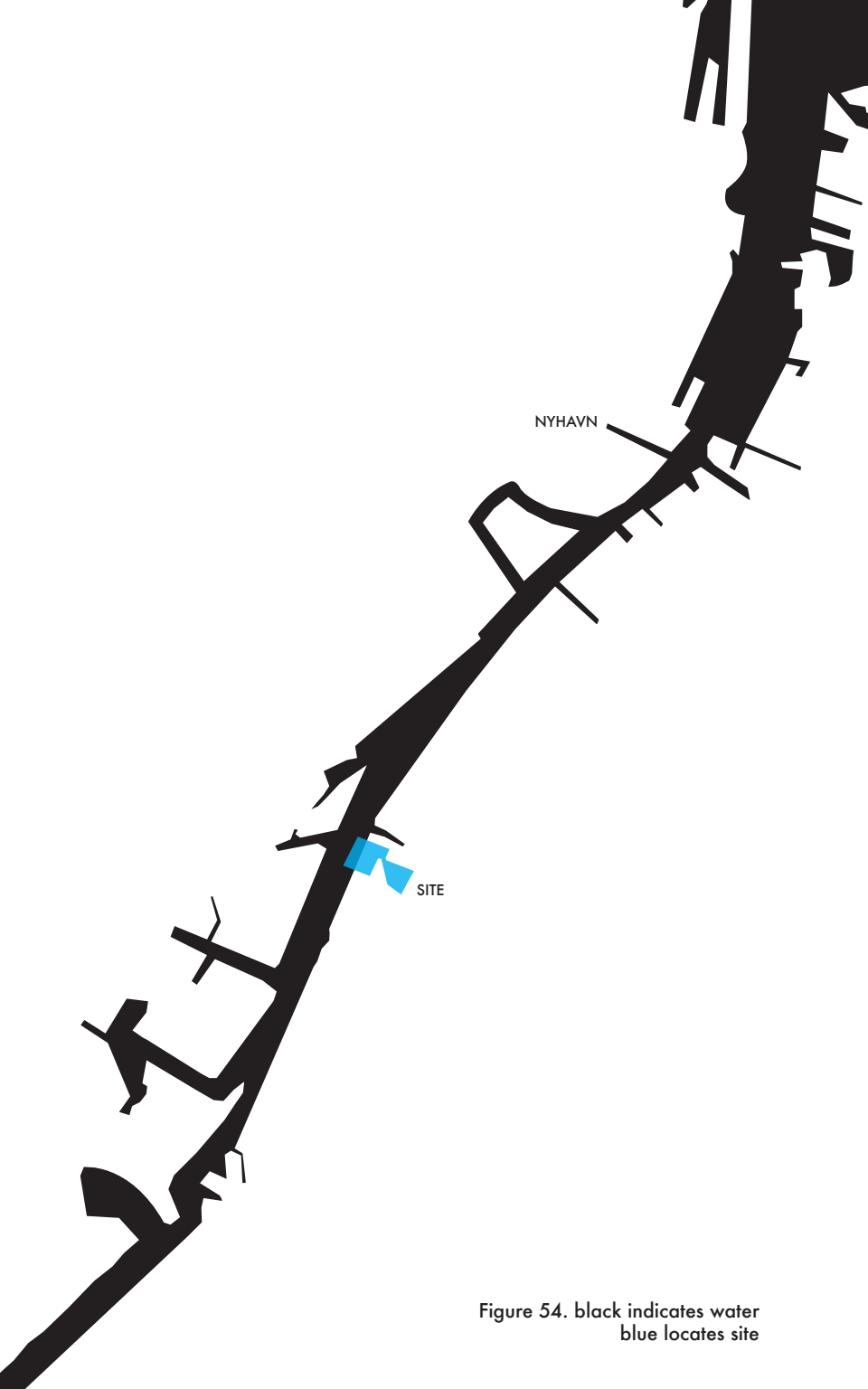


Figure 54. black indicates water
blue locates site

HARBOR INLETS

Mapping the harbor inlets shows a significant number of cuts into the land. The land is demarcated as white, the water as black, and the blue shows the location of the thesis site. The harbor is very narrow at the center of the city, and it has become necessary to start carving away from the land to provide additional access. These inlets are used for private boat storage or commercial use.

The character of the main channel of the harbor appears vacant and minimally used. It is 250 feet wide at its narrowest point, and becomes wider as it moves north and south. Few boats use the harbor during the winter months. There is a water-taxi that connects the north and south neighborhoods, but it is not heavily used. During the summer months, the harbor is used minimally for small private boats.

These inlets break the pedestrian promenade that runs along parts of the harbor. This is an interruption to the continuity of the waterfront.

Apart from a few exceptions such as Nyhavn, these inlets do not provide greater public access to the water. The view is still the primary mode of engagement.

Figure 55. Engaging the harbor - Nyhavn



COPENHAGEN'S URBAN CONDITION:

CITY CENTER TO PERIPHERY

The harbor connects the inner city to the periphery. At the periphery of Copenhagen, there are large leftover spaces that call for a different approach when designing public spaces. The qualities that made Strøget so popular are not possible within periphery conditions.

Revisiting the public artwork presented in chapter two, many of those examples were found at the edges of the city. The interventions were successful because they engaged the public, letting them explore and experience the space in a prescribed way. They brought a sense of place to an uncharacteristic neighborhood. They explored an idea that we as a public could relate to.

This thesis addresses public space at the periphery of the Copenhagen through sensory and emotive derived design. I will design the public space through the framework derived from the artist's public works.

BETWEEN URBAN AND SUBURBAN

The periphery condition is found between urban and suburban Copenhagen, and is unlike the standard building typology of the inner city. Most of the buildings have been constructed within the last 15 years and do not conform to perimeter blocks, but stand as individual volumes. This results in an unclear street grid, and leftover in between spaces.

These graphics show the difference between the inner city block and the periphery city block. The city center block is made up of several buildings knit together to form a continuous street facade. The street facade frames the street which is approximately 25 feet wide by 60 feet high. This ratio allows for pedestrian oriented streets, mainly because the street is too narrow to support motor traffic. Many of these streets have been converted into walking-only retail corridors, Strøget being the most well known.

The periphery city block is a much different character. The individual buildings are oddly shaped and large enough to make up one city block, therefore standing alone. The street scale is increased to as much as 85 feet wide for a two lane road, bike lanes and extremely wide sidewalks. The buildings are also eight stories high instead of the typical six, rendering 96 foot towers. The ratio of building height to street width feels awkward, and does not leave any framed space for the pedestrian to be guided through.

Public space at the periphery is undefined because there is little framed or special space, every "in between" feels the same: large and out of scale for pedestrian use.



Figure 56. CITY CENTER CITY BLOCK



Figure 57. PERIPHERY CITY BLOCK

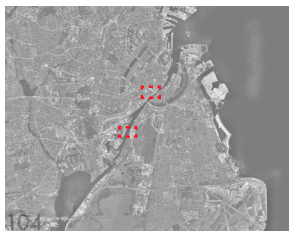


Figure 58. Key

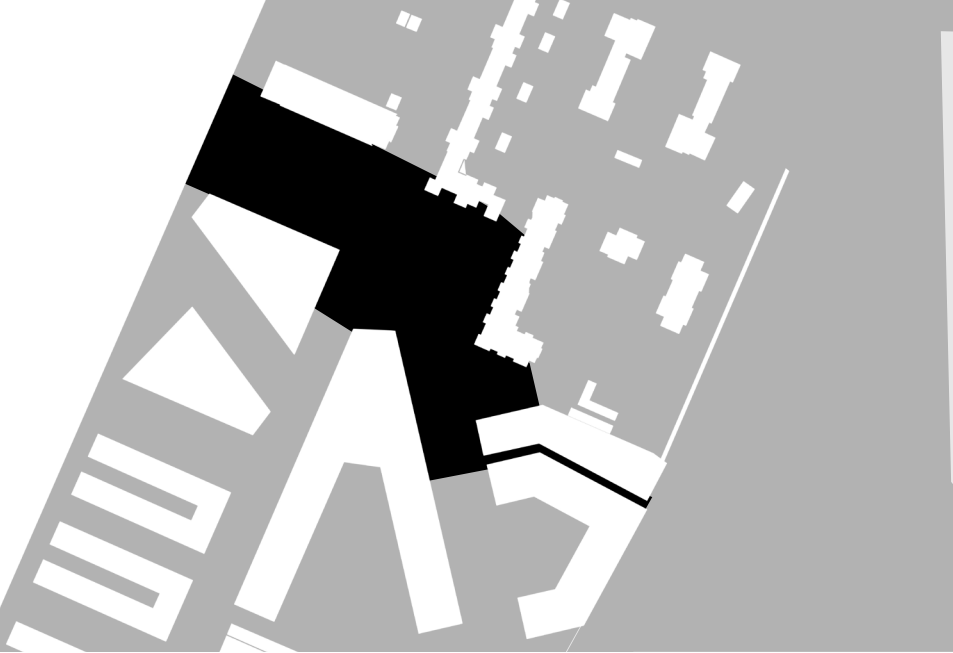


FIGURE 59. PERIPHERY CITY BLOCK

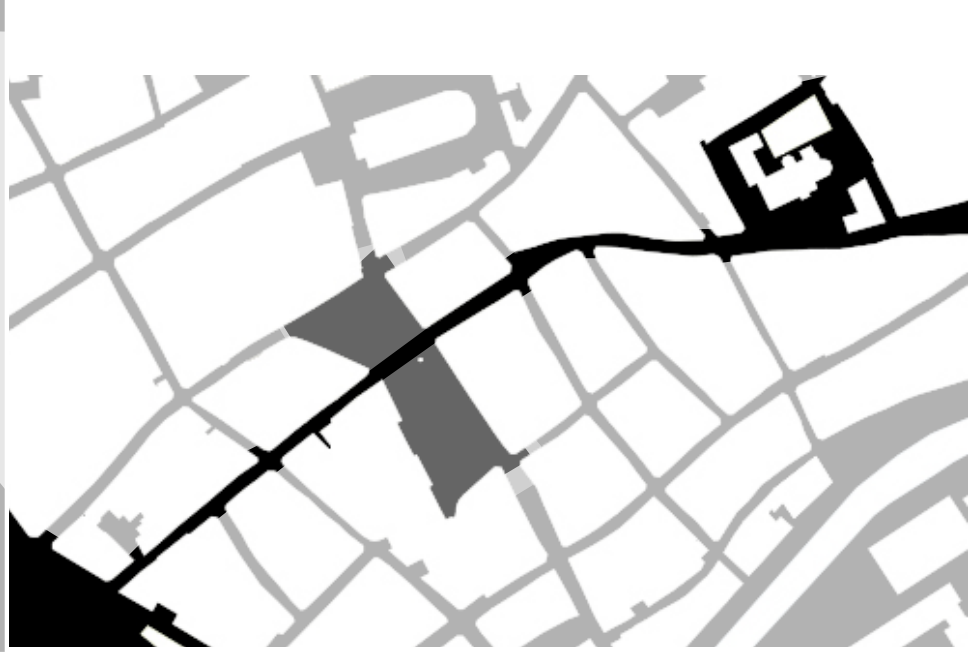


FIGURE 62. CITY CENTER CITY BLOCK



FIGURE 60/61. HORIZONTAL



FIGURE 63/64. VERTICAL



Figure 65/66. City center perimeter block housing typology

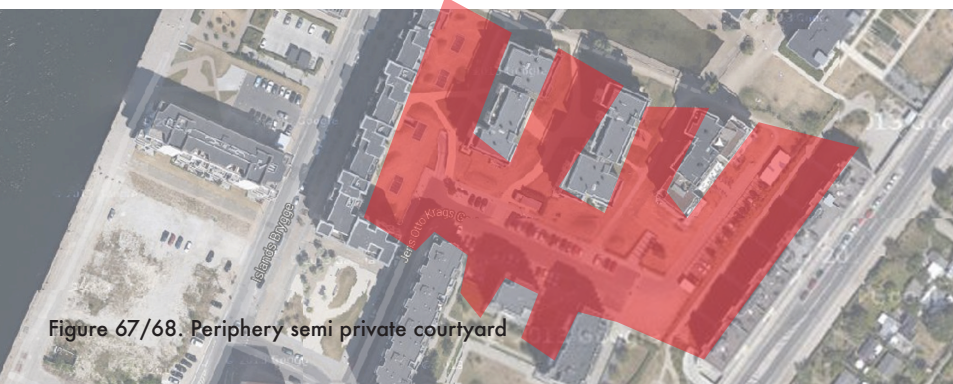


Figure 67/68. Periphery semi private courtyard

COURTYARD TYPOLOGY

Copenhagen's urban character is typically formed by perimeter block buildings with an interior courtyard. The courtyard is private, and functions as secure bike storage and a miniature green space. It is as a play-space for children, as well as gathering space for adults.

In this typology, it is standard to find commercial and private businesses at the street level and residences above, usually six stories and built in the late 1800s. Many of the buildings are painted yellow, orange, or blue, to contrast against the grey sky. The street facades consist of several buildings knit together to create continuity.

The new housing developments at Islands Brygge are irregular in shape, resulting in awkward street layout and residual unused spaces. The developments are still incorporating courtyards but they are not private. They are difficult to navigate if you venture in because of limited entry and exit points. These courtyards are not as well used as private courtyards because apartment tenants cannot depend on complete security. Bikes are not secure, and children need to be watched more carefully.

There are also urban plazas that few people use as public space, but more as a passage from point to point. These areas feel leftover and under utilized, as if the designers were unsure if the space was meant to be public or private.

The buildings stand alone among their surroundings. The buildings are two storeys taller than a typical Danish block housing, the streets are significantly wider and there is no commercial on the ground floor.

COPENHAGEN'S NEW RESIDENTIAL DISTRICTS:

ISLANDS BRYGGE

CONTEXTUALIZING ISLANDS BRYGGE

The city is split into several neighborhoods, named after the cardinal directions, Østerbro (North) and Vesterbro (East), Nørrebro and Indre By (inner city). Moving outward are areas called Fredericksberg, Christainshavn, Kongens Enghave, Amager, and Islands Brygge. The Lakes act as a major landmark in the city. The thesis site is about 25 minutes by bicycle from the center of Copenhagen, and you must cross the harbor via bridge to access Amager Island. You cannot cycle directly adjacent to the waterfront because of the cobble stone walking-only boulevard.

The site is located at the periphery (of the city center) in an area of Copenhagen called Islands Brygge at the south end of the harbor. This area is a former industrial hub, is located at the edge of the city, where typical urban character begins to fade and a new face of Copenhagen is developing. This is the transition zone between dense housing and single family lots.

The area of intervention is located between a recently built urban district (2000-2014) and several vacant lots. It straddles the harbor and a huge recreational park called Amagerfælled. This park is now a protected nature preserve, lowland and swampy, once used for military purposes.

Four blocks north of the site are two silos that have been repurposed into housing units. The base of the silos are exposed concrete cylinders. There is a large paved plaza at the exterior that lacks seating or ornamentation. There are also three round towers at the south of the site that are new development.

Just west of the housing silos is a walking and biking only bridge that connects to a large shopping complex.

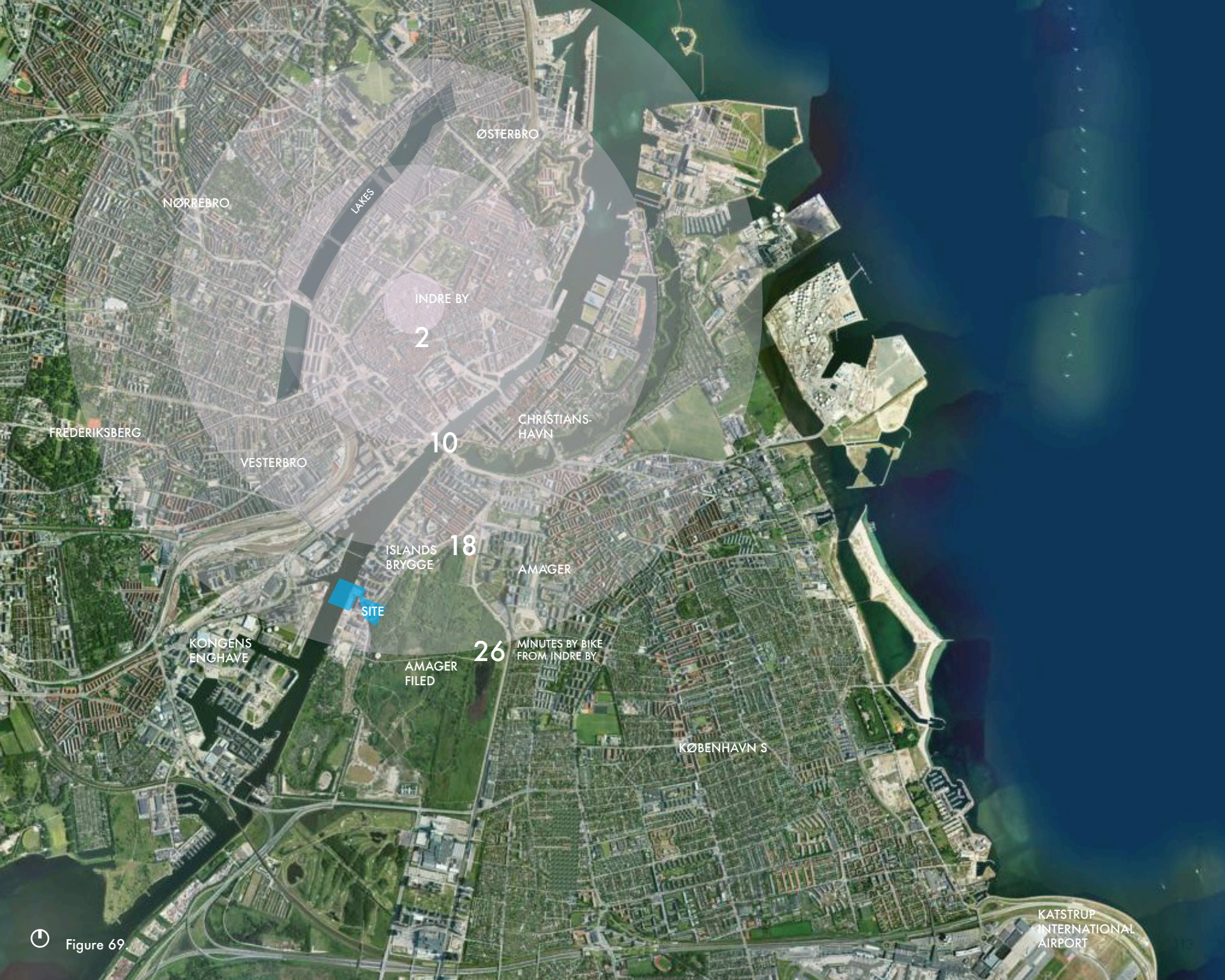


Figure 69.

PERIPHERY CONDITION

One of the advantages of the perimeter of the city is the extra room. There is space to experiment and explore new ideas. The residual spaces between the buildings are somewhat unclaimed and it seems possible to intervene, at least conceptually.

The extra room also reveals the gravity of Copenhagen's sky and water. In the interior of the city, the density covers up this relationship, and it is rarely viewed. Moving to the periphery exposes the merging of the sky and water and where they meet: the horizon.



Figure 71. Water and Sky: HORIZON / 4 blocks from thesis site

SITE



Figure 72.



Figure 73. A. new development by Sjælsø



Figure 74. 1932 power supply



Figure 75. B. allotment housing



Figure 76. C. Amagerfaelled



Figure 77. new housing and recreation



Figure 78. D. adaptive re-use - silos to housing



Figure 78/79. E/F. Street elevations



SITE PHOTOGRAPHS

These photographs show the immediate surroundings of the site. Directly across the harbor lays newly developed housing and a megaplex shopping center (similar an American style mall with multiple stories). Further south of the new development is an industrial power supply building which served Copenhagen in the 1930s. It has been converted into a museum.

At the south end of the site are the allotment houses, and beyond that Amager Fields. The allotment houses were popular in the 1920's as summer vacation houses outside of the dense city center. Each house has a garden and side yard, and they were transformed into Victory Garden's during the second world war. The summer houses are single story, built of wood, and modest in decor. They lost popularity after the war, and then regained momentum in the 2000s.

At the north end of the site are many recently retrofitted buildings, the most well known project are the transformed grain silos by MVRDV, adjacent to a pedestrian bridge that spans the harbor. Islands Brygge is being developed into 8-story apartment and condominium buildings.

ADOPTED MASTER PLAN

Islands Brygge is answering Copenhagen's need for new residential towers. The proximity to the water and the city center makes this area a primary location for development.

In 2005, a master plan was developed by PLOT Architects and West 8. Schønherr Landscape Architects and Planners have continued to advance the plan into a district overlay. The scheme continues the grid of Islands brygge south, to meet a man creek and beach. The buildings are 8-stories at the north end of the site, and then become smaller adjacent to the beach.

Several architecture firms are working on projects at this site including Arkitema, BIG, Boldsen og Holm, C.F.Møller Arkitekter, Nobel Arkitekter, Holgaard Arkitekter, John Roberts, André Straja, Dorte Mandrup Arkitekter, Vandkunsten.

The developers include Landowners Artillerivej Syd, consisting of; NCC A/S, Nordkranen A/S, Kay Wilhelmsen A/S, Walls A/S and others.

The project was slated for completion in 2012, and experienced delays due to the 2008 recession.

I have chosen to adopt this master plan, and work within the framework of the proposal. The goal of the thesis is to accept existing conditions, and transform the spaces around them.

AT THE PERIPHERY: THESES SITE

SITE

This site offers a mix of periphery conditions. It has new 8-story residential buildings, and an abandoned 8-story school with a 3-story parking garage next to it. It lays between the harbor and Amager Fields, and offers a linear quality when connecting these two features.

The area of intervention (marked in red) runs between the buildings. The aerial photo (Figure 82) taken in 2012 shows the existing buildings. The dominate V-shaped building was designed by BIG Architects in 2010.

The abandoned school and parking garage were built in approximately 1960, and are undergoing renovations. It is rare to find abandoned buildings in Copenhagen. Between the parking garage and school is a 12 foot gap. This is an existing relationship and the most interesting condition on the site (Figure 95).

At the edge of the harbor is a pedestrian boulevard that connects the north and south part of the site. The site has been developed at the north, and remains partially undeveloped at the south edge. The industrial buildings do not remain.

All the occupied buildings are residential with some office. The BIG project is the only building with commercial at the ground floor.

There are two main roads that connected the site to the city center, both are minimally trafficked because the low density south of the site. There is a bus line that connects to Amager Fields.



Figure 82.



Figure 83.



Figure 84. A. Looking North at new residential

Figure 85. B. Looking North at new residential





Figure 86. C. Looking North, access road to parking and courtyard

Figure 87. D. Looking West, semi-private courtyard and park-





Figure 88. E. Streetscape and abandoned parking garage



Figure 89. F. Streetscape, BIG project, abandoned school



Figure 90. G. Abandoned School and parking garage, looking East



Figure 91. H. Streetscape and BIG project, looking South



Figure 92. I. semi-private courtyard, BIG project

Figure 93. J. BIG project and abandoned school, looking North





Figure 94. K. On top of the abandoned parking garage



Figure 96. M. Parking garage interior round-about

Figure 95. L. Between the parking garage and school, looking West



Figure 97. N. Concrete columns and floor plates





Figure 98. O. Streetscape adjacent to Amager Fields

Figure 99. P. Streetscape adjacent to Amager Fields



Figure 100. Q. Residual industrial building

FINE GRAIN

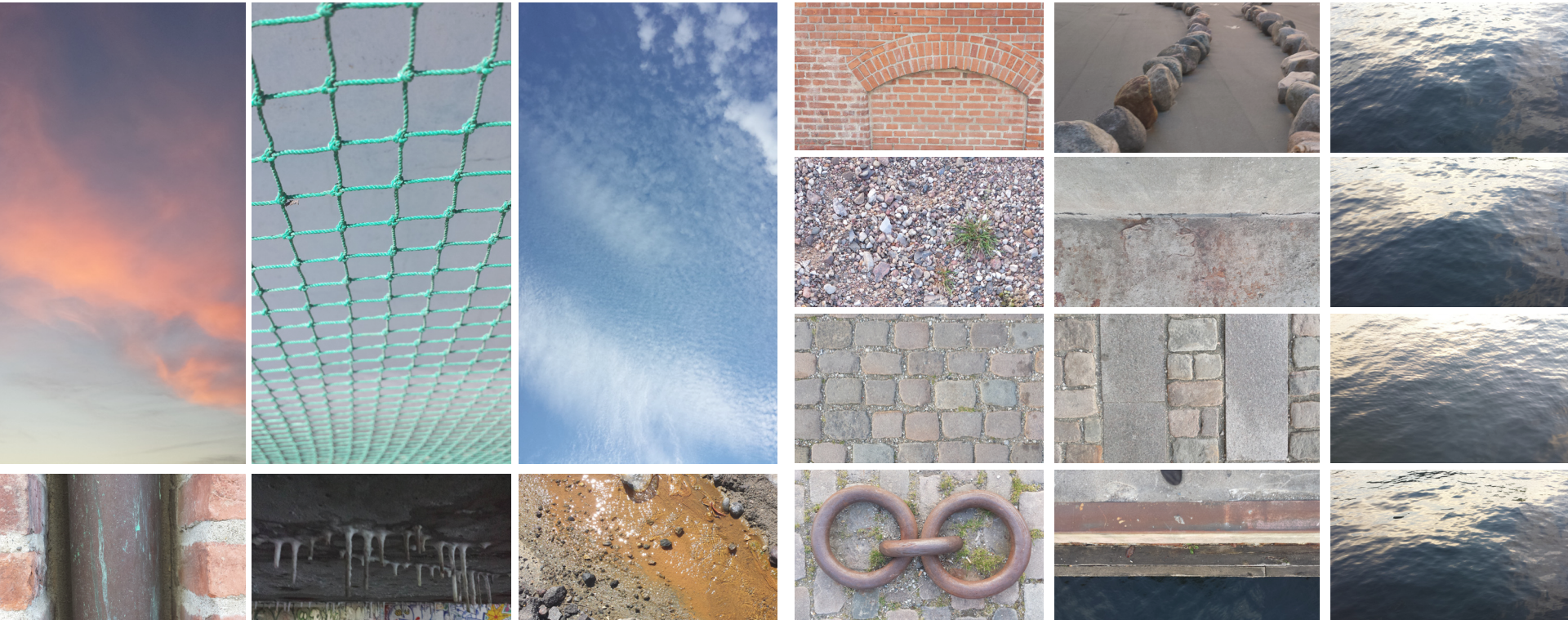


Figure 101. textures of the site

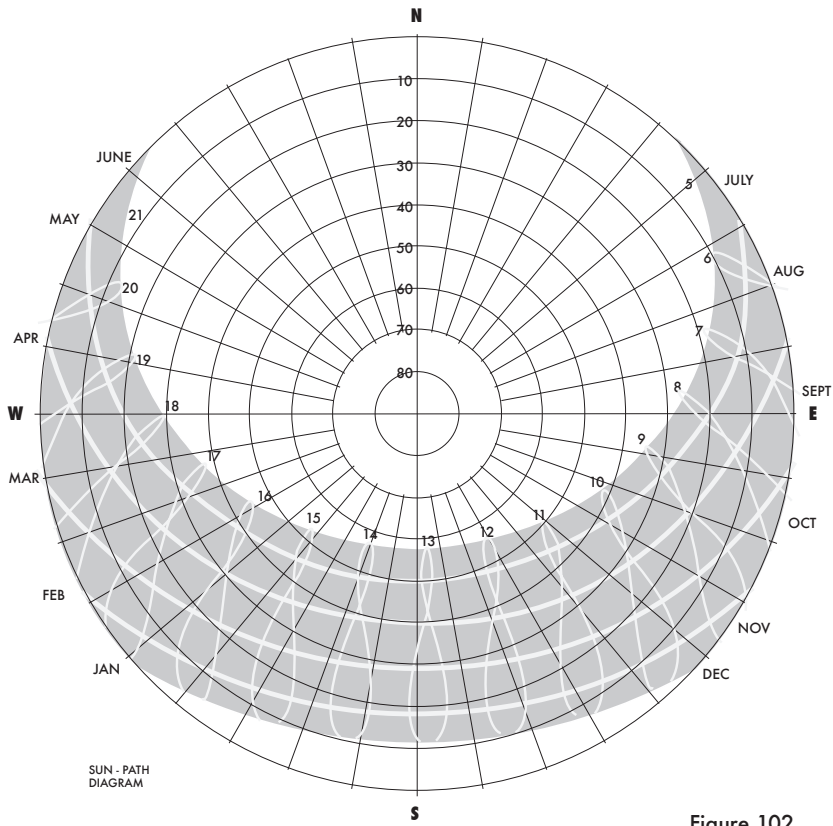


Figure 102.

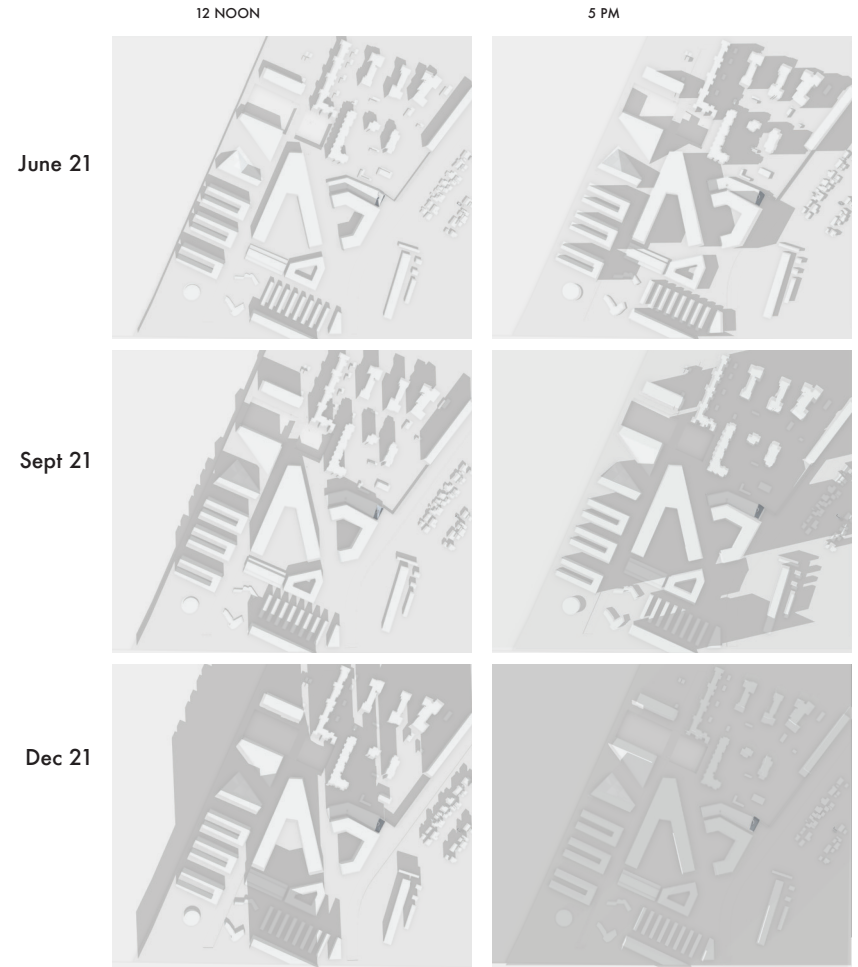


Figure 106. sun and shadow diagrams

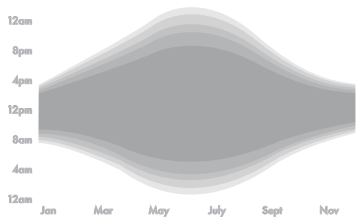


Figure 103.

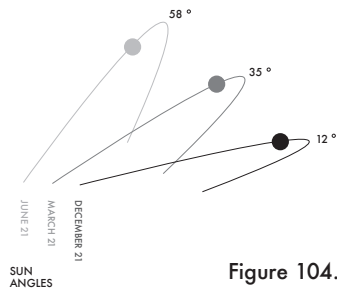


Figure 104.

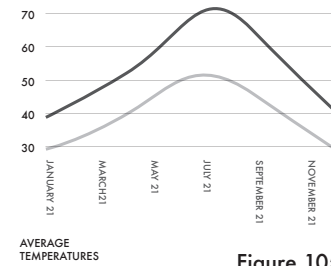


Figure 105.

DESIGN PROPOSAL

If a work of architecture consists of forms and contents which combine to create a strong fundamental mood that is powerful enough to effect us, it may possess qualities of a work of art. This art has, however nothing to do with interesting configurations or originality. It is concerned with insights and understanding, and above all with truth.¹²

- Peter Zumthor, *A+U*

The goal of this thesis is to design emotive and evocative public space at the periphery condition. I chose to work with this site because of the relationship to the harbor and Amager Fields. There are views outwards towards the water and the park, and there is room for experimental intervention. The location offers unique qualities found only at this specific spot. The horizon and flatness are exposed because of the extra room.

The intervention uses water as a means of designing experiential public space because of the direct adjacency to the harbor and because of Copenhagen's limited access and engagement with water. Pairing the public space intervention with a bath house allowed for public facilities and another level of engagement with water. The function of the bath house changes as the site condition does.

The site also lends itself to linear relationships, it is possible to guide the pedestrians from one side of the site to another via an informal path and visual incentives. The linearity fits within the greater network of Copenhagen's linear spaces.

CONCEPT: Strong horizon line with shifting planes.

These planes carve down and lift up. The viewer can occupy these planes and shift the perception of Copenhagen's strong horizon.

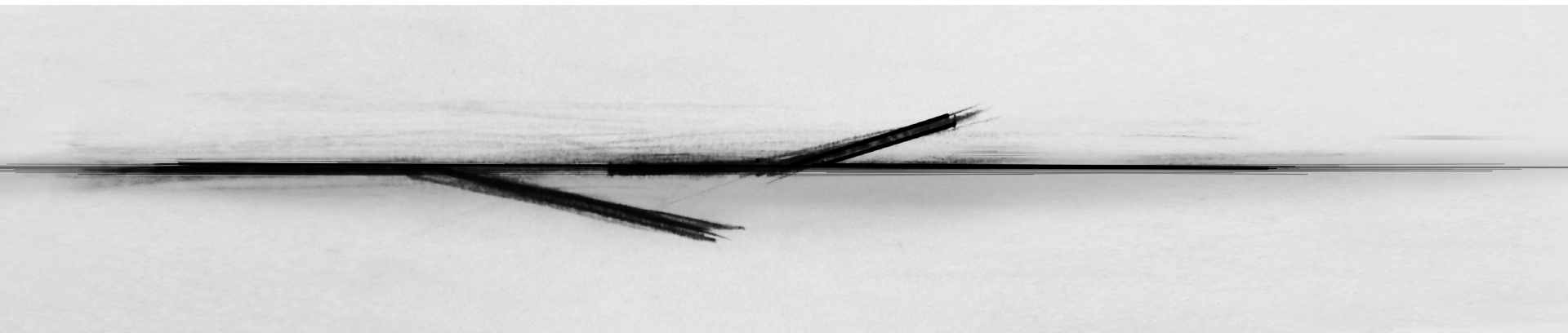


Figure 107. concept diagram

SITE PLAN

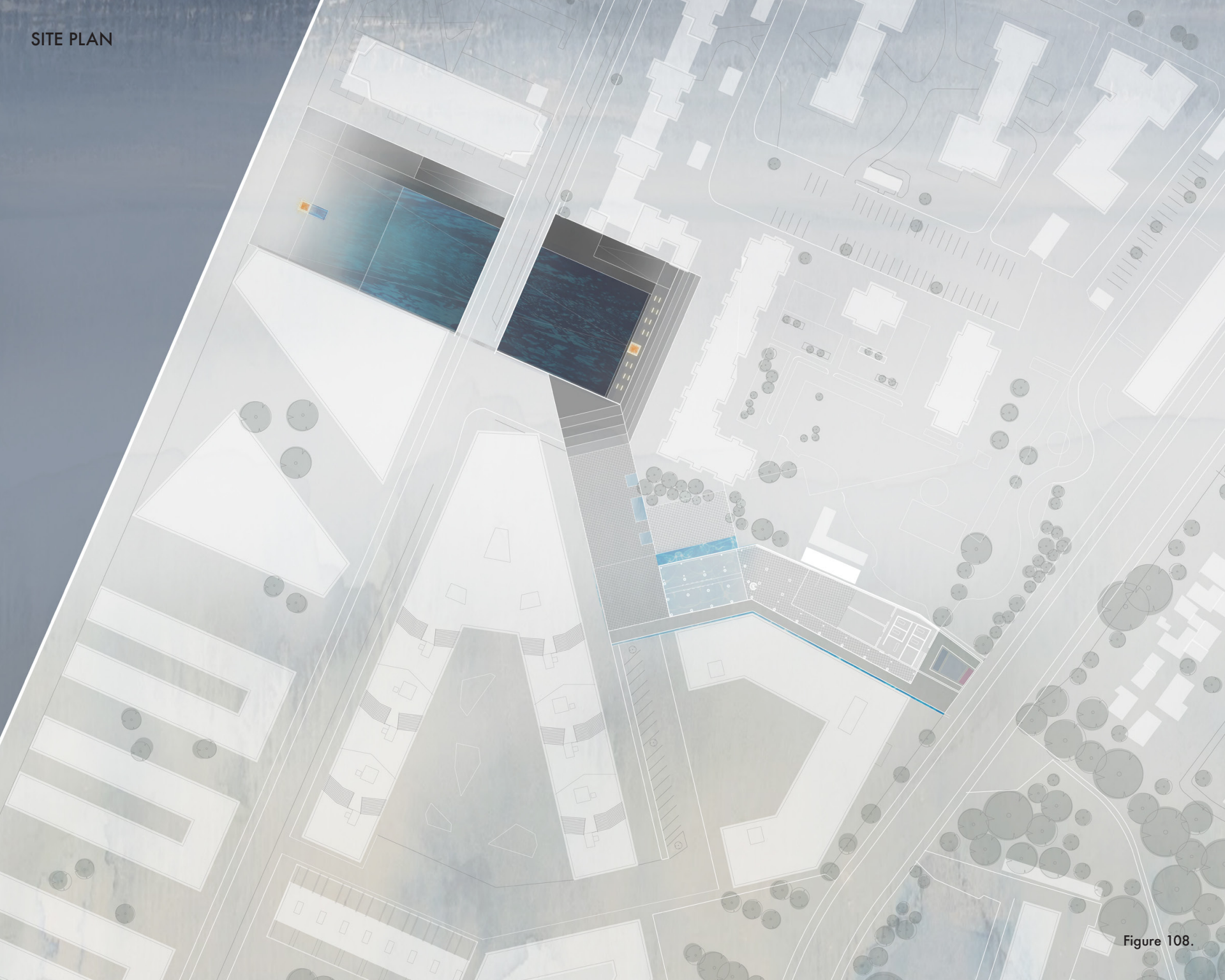
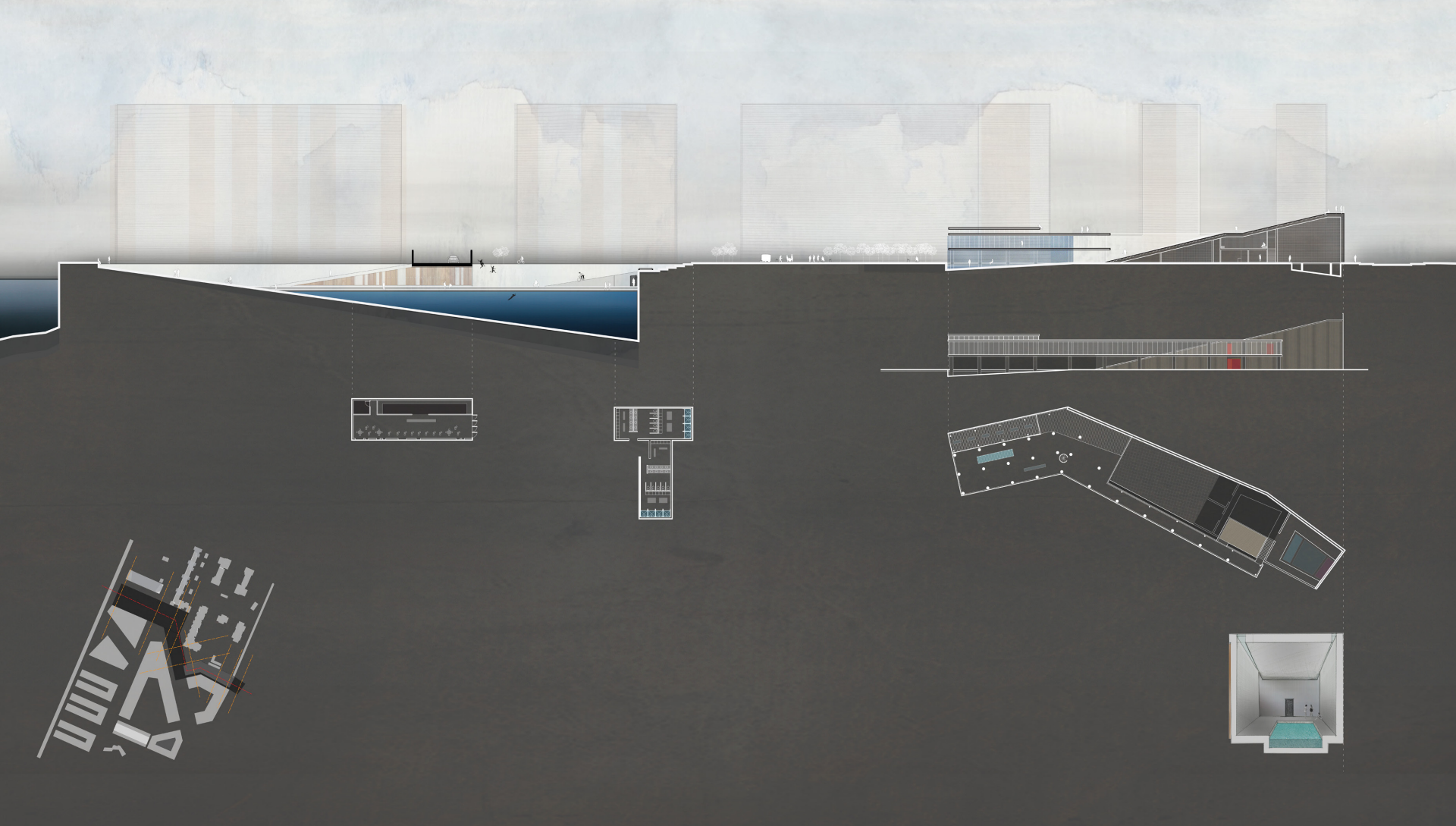


Figure 108.

UNFOLDED LONGITUDINAL SECTION LOOKING NORTH



SITE STRATEGY

The approach is carving down and lifting up to break from the strong horizon and flatness that is found in Copenhagen. These shifting planes immediately alter the impression of the landscape. The architecture occurs at the edges of the shifts, it often occupies the space underneath.

The carving down at the harbor creates a protected space against the strong winds that travel up the channel. This shift creates a large salt water pool which functions as an active space. It is used as a swimming pool during the summer and an ice rink during the winter.

The lifting up occurs at the East side of the site, adjacent to Amager Fields. The shift happens within the abandoned parking garage and lifts up to expose the view out to Amager and the Øresund Sea beyond. This shift holds the bath house, and a waterfall and the edge of the parking garage.

Connecting the harbor and Amager Field allows for linearity that fits within the framework of Copenhagen's public space. The pool and waterfall are connected through the existing street scape.

The site strategy employs the three qualities specific to Denmark: flatness of terrain, quality of light, and the art of hygge. This space is intended to be used year round, and changes as the seasons do.

SALT WATER POOL

A large plane curves down to create a subterranean vessel for a 25 foot deep pool. There is a bridge that floats above and a perimeter wall that creates a room within a room. The public can sit on the edge of the wall or the bridge and look on to the pool, or jump from the wall. This is a place for loud, extroverted activity.

There is a sense of vastness that echoes that of the harbor. The pool is expansive, but also protected. I chose to maintain the edge of the harbor to differentiate the design from the series of inlets that break the edge. It also maintains the boardwalk that connects the north and south end of the site.

There is a hot tub and hearth, bringing hygge to outdoor space, at the east and west sides of the pool. These function as a places for gathering on a cold winter night. There is also a bar/ coffee shop underneath the bridge in the subterranean space. At the east side of the pool there are basic changing rooms.

From the street above, there are a series of ramps which lead to the pool. These ramps also act as benches, and receive the maximum amount of light during the day. The pool receives the most light during the afternoon and late day, especially during the long summer days.

Above the pool is a series of steps, another location to sit and watch the activity of the water. This intervention lays at the widest part of the site, between two residential towers.

The salt water of the pool is sourced from the Harbor. There is an underground piping system that allows the tide to fluctuate in the pool echoing the harbors tide of one to two feet.

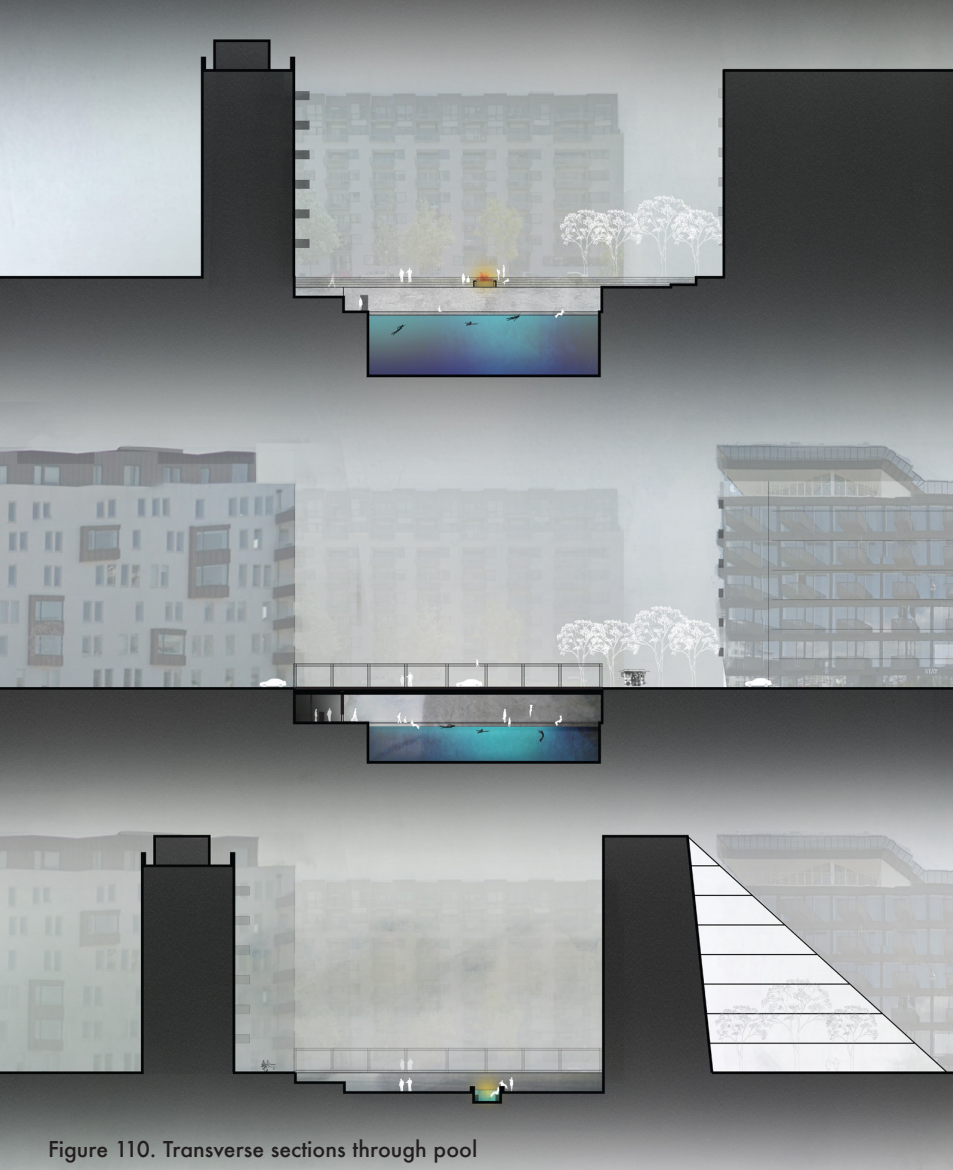
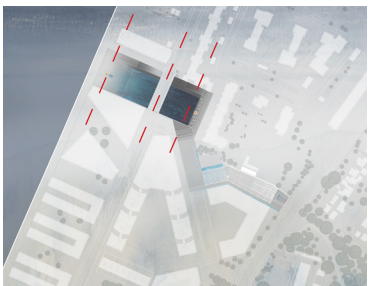
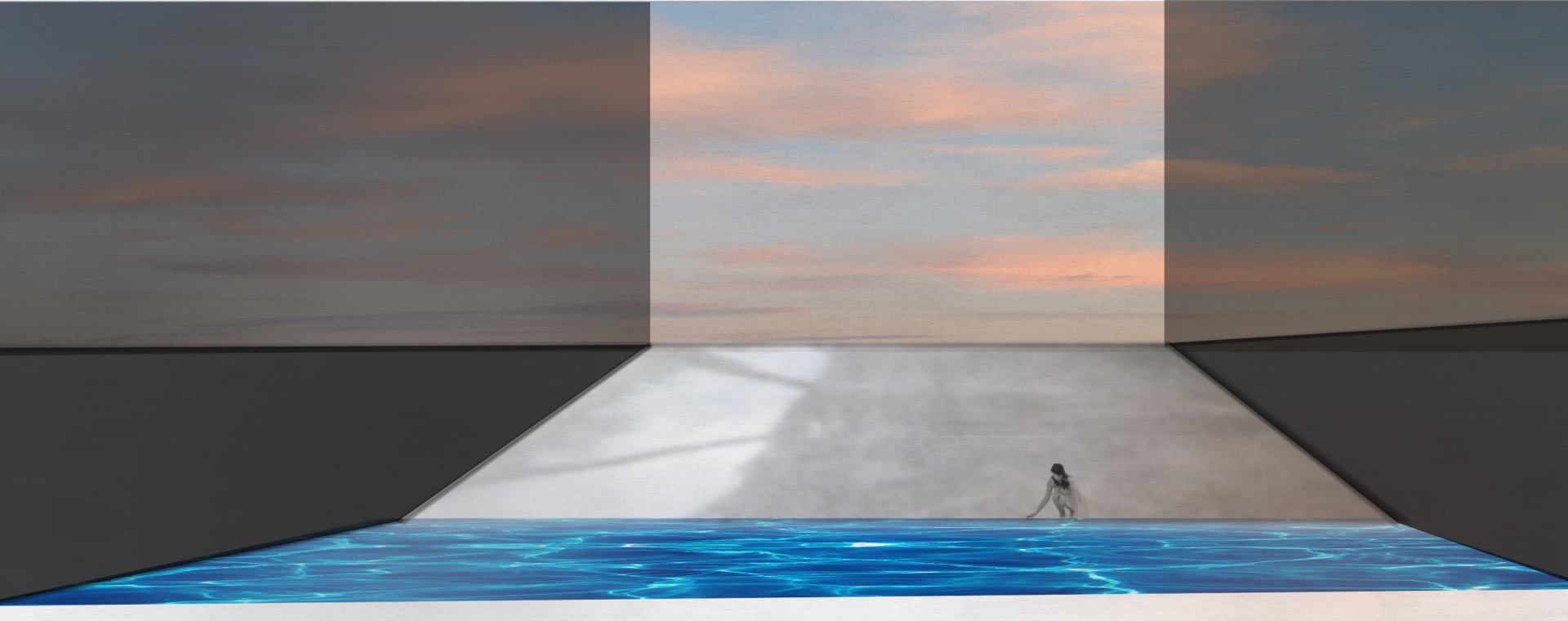


Figure 110. Transverse sections through pool









FLEXIBLE STREET SCAPE AND WATERFALL

This space is less designed to allow the public transform it. It is a flat surface and also receives the most sun light in the morning to afternoon. This could be a place for a vintage clothing market, a seasonal Christmas market, a place for public art installations, dance performances or the start of a marathon. The space is intended to be flexible.

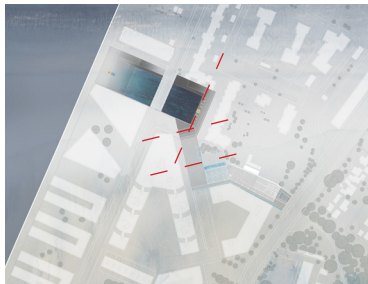
The street is flanked by the two water interventions, the salt water pool and the waterfall. Each piece has visual pull and this streetscape is what links them together.

The street edges are transformed to benches and steps and in some places water runnels. These moments help to simply differentiated the tree-lined street from other normal streets. At the north end, you can warm your hands by the fire and look out over the pool. At the south end of the street, you can put your hands underneath a waterfall, or wade into the shallow pool of water that runs underneath the parking garage.

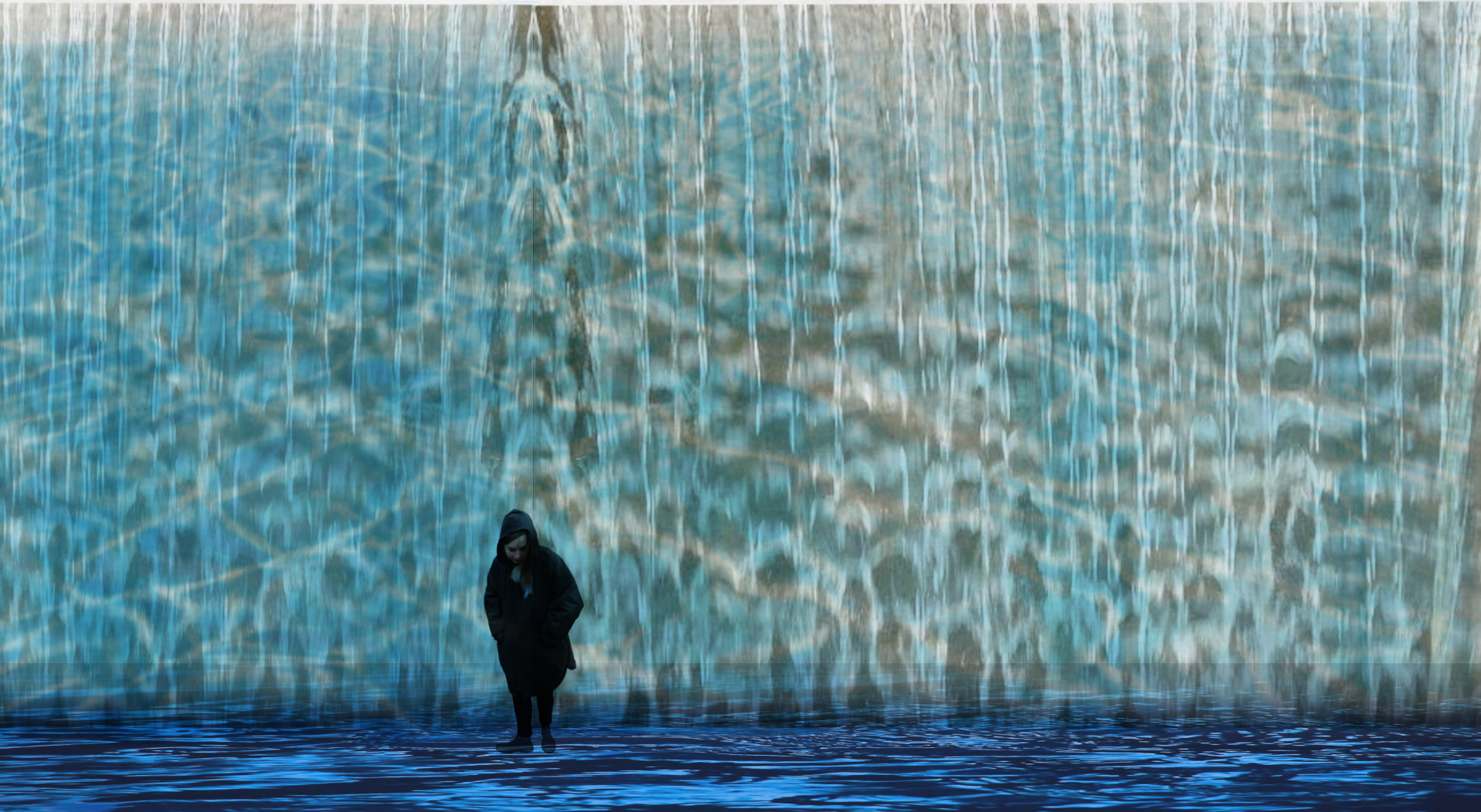
This street feels somewhat enclosed (approximately 80 feet wide) because of the BIG project and new housing developments.



Figure 114. Transverse sections through street scape







PARKING GARAGE

The existing parking garage has been transformed to hold the bath house. A shifting plane occurs at the interior space and lifts up to create a lookout onto Amager Fields. This lifting up makes a strong relationship to Amager and the Øresund Sea. The public can access this lookout by wandering the gap (Figure 119) between the abandoned school and parking garage.

The gap is discovered within the realm of public space, it encompasses the third form. It is a place of contemplation and unknown, an escape from reality. The gap is unique because of the scale. It is approximately twelve feet across with three stories height on one side and eight on the other. The visitor immediately feels comfortable and also intrigued within this space.

The parking garage has an existing three foot subterranean slope at the west side. The waterfall is also at the west side and fills the pool the slope creates. You can soak in the shallow pool, or just watch it change from the waterfalls gravity.

Underneath the shifting plane is the bath house which contains changing rooms, showers, and soaking pools at the ground level, and a sauna and steam room in the second floor of the parking garage. The second floor has been enclosed with glass panels, but bathers can still look out to beyond. On top of the parking garage is an occupied roofscape.

The waterfall system is a self contained system connected to the city's water. It is treated and slightly heated so the waterfall can function year round.

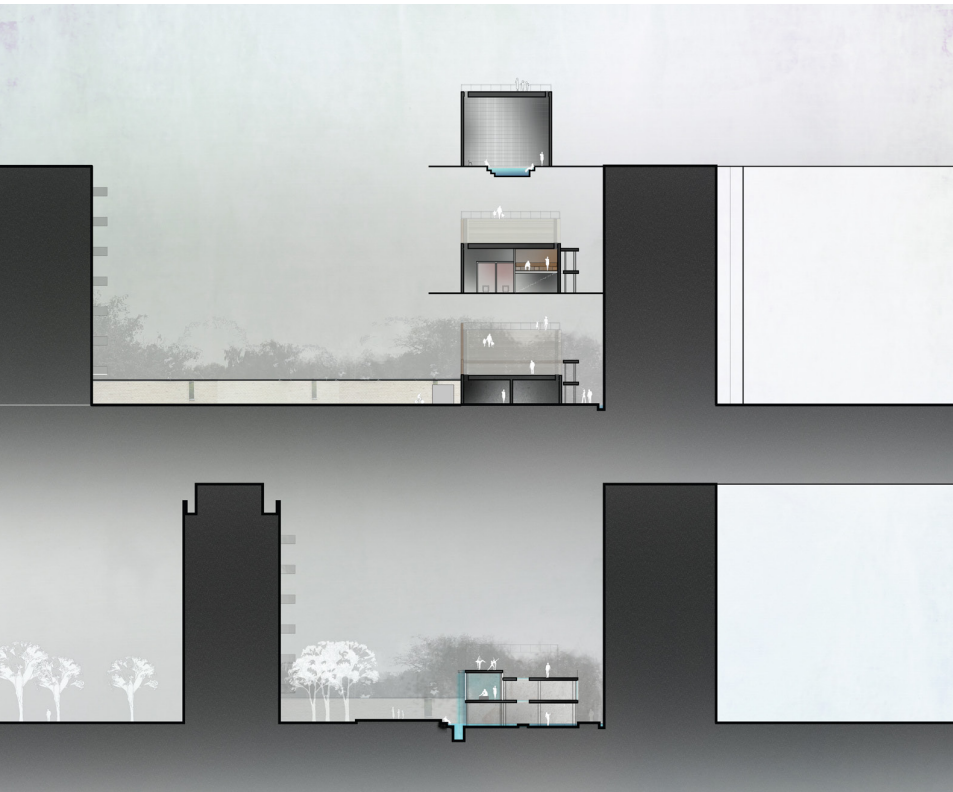
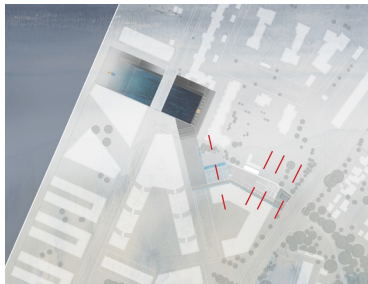


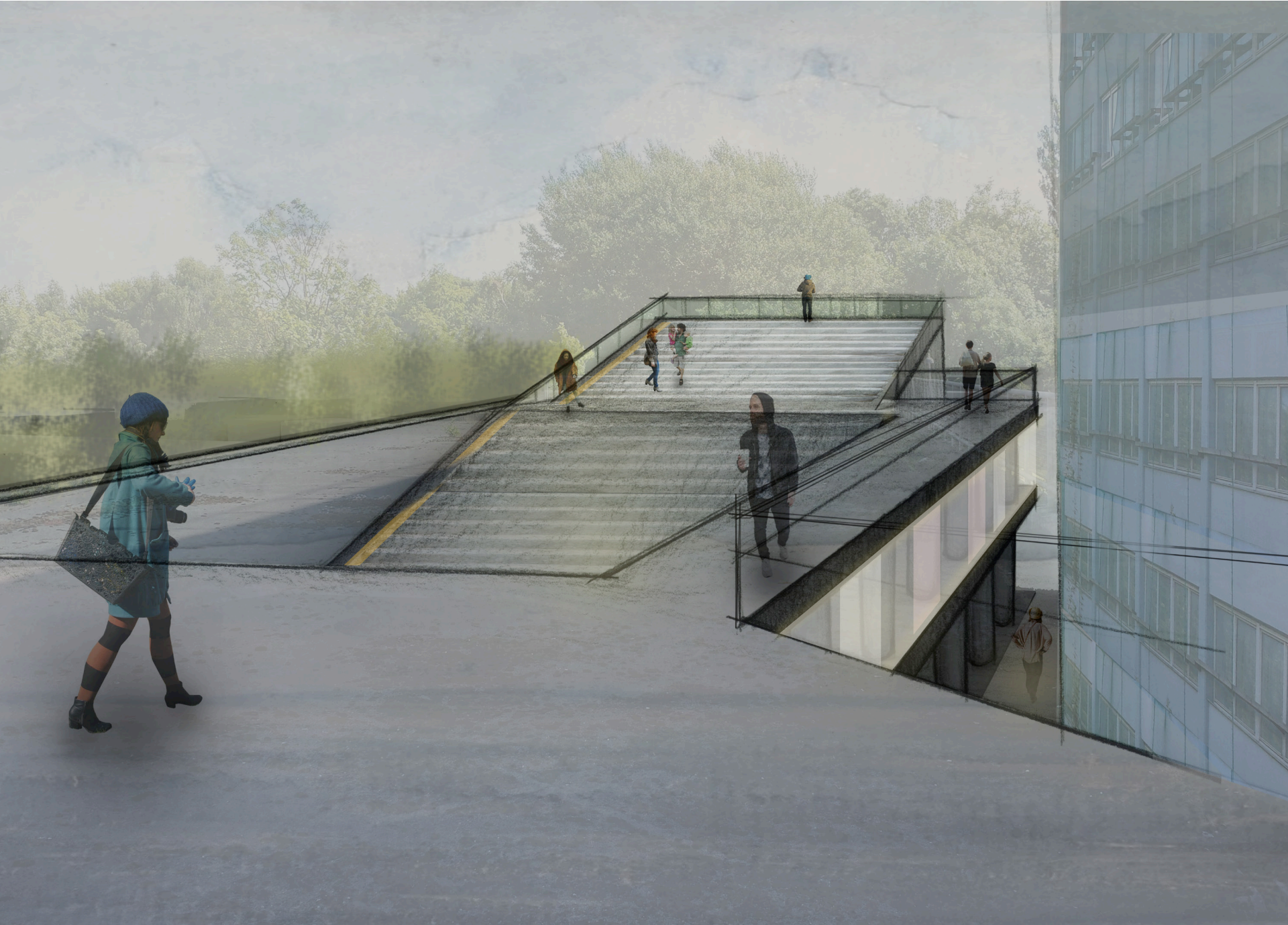
Figure 117. Transverse sections through parking garage, bath house, and waterfall



Figure 118. Soaking pool
Bath house interior view







CONCLUSION

I started this project with an interest in unusual public space. These were spaces without retail or restaurants, but places where it was possible to become aware of your senses, your being, and your response to the immediate surroundings.

The five principles of perception, contradiction, autotelic, attraction, and dissipation were derived from public art projects done in unresolved and left over spaces. These projects revitalized public space, and allowed people to interact with space with heightened sensory experience, perhaps shifting perspective or contemplating a new thought. It is a chance to escape, to experience an unknown for a moment.

In these selective works, an idea is pondered and a form follows. These principles are not attached to programmatic constraints, which allows the artist more freedom to explore an idea.

I am arguing these principles can also be explored in architecture and urban design.

I became interested in the periphery condition because of my study in Copenhagen. These leftover spaces can be found all over the world. The goal of this thesis is to design emotive and evocative public space at the periphery. I attempted to do this in Copenhagen, but I believe this approach could be utilized elsewhere.

The site in Copenhagen required a specific strategy, one that made sense within the context of Denmark. Each new site would also require the same research and context to come up with an appropriate solution within the framework of the third form. I believe that the difference between art and architecture, is that my architecture requires a site specific response. The framework may be the same, but the manifestation of the form is driven by the site context and history.

The third form is an idea I will continue to develop in my architecture. This thesis has been a huge and rewarding challenge. The process has been the most exciting part. I am realizing there is never really an end, just a moment in time where you are precisely aware of the change you are enduring.



Figure 121. Site model

1. Brissenden, Erica. *Typical urban block at the periphery of Copenhagen*, Copenhagen, Denmark. 2014.
2. Séguret, Michel. Le "Miroir d'eau" à Bordeaux, Bordeaux, France. 2012
<https://www.flickr.com/photos/michelseguret/7685807304/in/photolist-cHaLK3-p4sAnt-eeY9RG-aEkqQT-h4kH1s-2s9Fdn8iu198-fFCfav-6hs76D-7w4C12-9Jc11U-iqKWqJ-8Mkrdn-JQFMK-aEkqGa-aFyb8s-cvXuGL-888KYm-9aG9Bx-bw7BpA-7PKqat-nCasuf-9LwRNI-7cvXf6-6KHQRX-oSvDG6-7LJVio-zQMGB-bsADfM-6eagxev-bqKQRW-9mkHZz-8o4NpG-7eyfpG-6B1AUQ-f4uz2i-4U9wQV-box7hf-8pebw-8ym5H8-acqJ2L-fttm6q-fgHQ4w-4SrvKc-IDwtvx-33eaXe-fgtDdbx-fgHRqL-pekGvk-6Y6jpC>
3. Brissenden, Erica. *Photograph of Cloud Gate*, Chicago, USA. 2014.
4. Kapoor, Anish. Image from Public Lecture, Museum of Contemporary Art Australia, 2012.
<https://www.youtube.com/watch?v=4M13fGkIF4A>
5. Eliasson, Olafur, and Robert Irwin. "Take Your Time: A Conversation." *Take Your Time: Olafur Eliasson* (2007).
6. Eliasson, Olafur, and Robert Irwin. "Take Your Time: A Conversation." *Take Your Time: Olafur Eliasson* (2007).
7. Brissenden, Erica. *Photograph of Your Rainbow Panorama*, Aarhus, Denmark. 2014.
8. Jeanson, Thibault, and Al Foote III, Will Chafkin, Woo-Ram Jung, James Ewing, Lana Z. Caplan, Philip Greenberg/New York Times, The Wanas Foundation, Ann Hamilton Studio. 2012.
<http://www.annhamiltonstudio.com/projects/armory.html>
9. Jeanson, Thibault, and Al Foote III, Will Chafkin, Woo-Ram Jung, James Ewing, Lana Z. Caplan, Philip Greenberg/New York Times, The Wanas Foundation, Ann Hamilton Studio. 2012.
<http://www.annhamiltonstudio.com/projects/armory.html>
10. Stiftung Landschaftsarchitektur Eur. *On Site: Landscape Architecture Europe*, Birkhäuser Architecture; 1st edition, 2009.
11. Stiftung Landschaftsarchitektur Eur. *On Site: Landscape Architecture Europe*, Birkhäuser Architecture; 1st edition, 2009.
12. Stiftung Landschaftsarchitektur Eur. *On Site: Landscape Architecture Europe*, Birkhäuser Architecture; 1st edition, 2009.
13. Ferrand, Joao, and David Feldman, Daniel Coulon. *She Changes*. Porto, Portugal, 2005.
<http://www.echelman.com/project/she-changes/>
14. Echelman, Janet, and Mark Davis, Peter Vanderwarker, Sarah Rothwell. 1.26. Denver, USA, 2010.
<http://www.echelman.com/project/1-26-denver/>
15. Turrell, James, and Florian Holzherr. Skystone Foundation, photos of Roden Crater, 2010.
<http://roden crater.com/>
16. Turrell, James, and Florian Holzherr. Skystone Foundation, photos of Roden Crater, 2010.
<http://roden crater.com/>
17. Eliasson, Olafur, and Robert Irwin. "Take Your Time: A Conversation." *Take Your Time: Olafur Eliasson* (2007).
18. Jeanson, Thibault, and Al Foote III, Will Chafkin, Woo-Ram Jung, James Ewing, Lana Z. Caplan, Philip Greenberg/New York Times, The Wanas Foundation, Ann Hamilton Studio. 2012.
<http://www.annhamiltonstudio.com/projects/armory.html>
19. Turrell, James, and Florian Holzherr. Skystone Foundation, photos of Roden Crater, 2010.
<http://roden crater.com/>
20. Brissenden, Erica. *Photograph of Cloud Gate*, Chicago, USA. 2014.
21. Brissenden, Erica. *Photograph of Your Rainbow Panorama*, Aarhus, Denmark. 2014.
22. Brissenden, Erica. *Map of Denmark*, photomontage from www.krak.dk
23. Malling, Ole. *By & Havn, Copenhagen Harbor and New Districts*. 2012.
<https://www.flickr.com/photos/65062477@N05/7671264378/>
24. Brissenden, Erica. *Photograph of Copenhagen's Harbor at Islands Brygge*, Copenhagen, Denmark. 2014.
25. Painting: Vilhelm Hammershøi 1898 - *Interiør med læsende ung mand* by Vilhelm Hammershøi Licensed under Public domain via Wikimedia Commons.
http://commons.wikimedia.org/wiki/File:Vilhelm_Hammershøi%27C3%88i_1898_-_Interiør%27C3%88r_med_l%C3%A6sende_ung_mand.jpg#mediaviewer/File:Vilhelm_Hammershøi%27C3%88i_1898_-_Interiør%27C3%88r_med_l%C3%A6sende_ung_mand.jpg
26. Mt. Hood Territory. *Inside the Warmhut at Mt. Hood Skibowl*, Mt. Hood, USA. 2011.
https://www.flickr.com/photos/mt_hood_territory/6588347433/
27. Brissenden, Erica. *Photograph of Strøget – Copenhagen's first pedestrian only street*, Copenhagen, Denmark. 2014.
28. Brissenden, Erica. *Photograph of Nørrebro Bridge*, Copenhagen, Denmark. 2014.
29. Brissenden, Erica. *Photograph of Nørrebro Bridge*, Copenhagen, Denmark. 2014.
30. Bjerregaard, Kathrine. *Functional Meat Hall*, Copenhagen, Denmark. 2012
http://www.kulturarv.dk/1001fortaellinger/en_GB/the-white-meat-city
31. Imbert, Clotilde. *Christmas Calendar*. December 1, 2013. <http://cphblonde.com/?s=mother>
32. Brissenden, Erica. *Photograph of Superkilen Red Square*, Copenhagen, Denmark. 2014.
33. Brissenden, Erica. *Photograph of Superkilen Black Bike Path*, Copenhagen, Denmark. 2014.
34. Thomsen, Henning. *Nørrebroparken- simple cycle lane*, Copenhagen, Denmark, 2013.
<http://theadjournal.com/2013/10/18/urban-space-and-the-user/>
35. Thomsen, Henning. *Byhaven 2200 N*, Copenhagen, Denmark, 2013.
<http://theadjournal.com/2013/10/18/urban-space-and-the-user/>
36. Høgsberg, Simon. *Prags Boulevard*, Copenhagen, Denmark, 2012. <http://www.dac.dk/en/dac-life/copenhagen-x-gallery/cases/prags-boulevard/>
37. Thomsen, Henning. *Nørrebroparken- simple cycle lane*, Copenhagen, Denmark, 2013.
<http://theadjournal.com/2013/10/18/urban-space-and-the-user/>
38. Brissenden, Erica. *Photograph of Superkilen Red Square*, Copenhagen, Denmark. 2014.
39. Brissenden, Erica. *Photograph of Strøget – Copenhagen's first pedestrian only street*, Copenhagen, Denmark. 2014.
40. Brissenden, Erica. *Photograph of Nørrebro Bridge*, Copenhagen, Denmark. 2014.
41. Brissenden, Erica. *Photograph of Nyhavn*, Copenhagen, Denmark. 2014.
42. Brissenden, Erica. *Map of Greater Copenhagen*, photomontage. Copenhagen, Denmark. 2014.
www.krak.dk
43. Brissenden, Erica. *Photograph of residential surrounding Islands Brygge*, Copenhagen, Denmark. 2014.
44. Brissenden, Erica. *Photograph of Islands Brygge Harbor*, Copenhagen, Denmark. 2014.
45. Brissenden, Erica. *Map of Zealand and Amager*, photomontage. Copenhagen, Denmark. 2014.
www.krak.dk
46. Brissenden, Erica. *Graphic of Developing Copenhagen Harbor*, 2014.
47. Meyer, Joseph. *Copenhagen, Kiøbenhavn, 1844*. David Rumsey Historical Map Collection, Bibliographischen Instituts.
<http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~21906~680062:Copenhagen-Kiøbenhavn->
48. Johan Christian Dahl 1846, *Copenhagen Harbour by Moonlight*,
http://commons.wikimedia.org/wiki/File:Dahl_-_Copenhagen_Harbour_by_Moonlight.jpg
49. Author unknown, Image before the intervention. Aerial view of the Grand Canal and the Islands Brygge district. In the second half of the 20th century, the district was consolidated as a major industrial sector. Blog post from 2003, <http://www.publicspace.org/en/works/c132-havnebadet>
50. Brissenden, Erica. *Photograph of Copenhagen Harbor*, Copenhagen, Denmark. 2014.
51. Brissenden, Erica. *Graphic of City Center, Figure Ground*, 2014. www.mapbox.com
52. Brissenden, Erica. *Graphic of Periphery Condition, Figure Ground*, 2014. www.mapbox.com
53. Brissenden, Erica. *Map of Zealand and Amager*, photomontage. Copenhagen, Denmark. 2014.
54. Brissenden, Erica. *Graphic of Harbor Inlets, Figure Ground*, 2014.

55. Brissenden, Erica. *Photograph of Nyhavn*, Copenhagen, Denmark. 2014.
56. Brissenden, Erica. *Graphic of city center, Figure Ground*, 2014.
57. Brissenden, Erica. *Graphic of periphery -site, Figure Ground*, 2014.
58. Brissenden, Erica. *Map of Zealand and Amager*, photomontage. Copenhagen, Denmark. 2014.
59. Brissenden, Erica. *Graphic of periphery -site, Figure Ground*, 2014.
60. Brissenden, Erica. *Photograph of silo residential towers*, Copenhagen, Denmark. 2014.
61. Brissenden, Erica. *Photograph of residential towers and abandoned school*, Copenhagen, Denmark. 2014.
62. Brissenden, Erica. *Graphic of city center -Strøget, Figure Ground*, 2014.
63. Brissenden, Erica. *Photograph of Bagerstræde*, Copenhagen, Denmark. 2014.
64. Brissenden, Erica. *Photograph of west end Strøget*, Copenhagen, Denmark. 2014.
65. Google Maps. Brissenden, Erica. *Graphic of city center courtyards*, 2014.
66. Google Maps, street view. *Screen Capture*, 2014.
67. Google Maps. Brissenden, Erica. *Graphic of periphery courtyards*, 2014.
68. Brissenden, Erica. *Photograph of residential towers at Islands Brygge*, Copenhagen, Denmark. 2014.
69. Brissenden, Erica. *Map of Zealand and Amager*, photomontage. Copenhagen, Denmark. 2014.
70. Malling, Ole. *By & Havn, Copenhagen Harbor and New Districts*. 2012.
<https://www.flickr.com/photos/65062477@N05/7671264378/>
71. Brissenden, Erica. *Photograph of residential towers at Islands Brygge*, Copenhagen, Denmark. 2014.
72. Brissenden, Erica. *Map of thesis site with zoning*, photomontage. Copenhagen, Denmark. 2014.
73. Brissenden, Erica. *Photograph of new development by Sjælsø*. Copenhagen, Denmark. 2014.
74. Brissenden, Erica. *Photograph of power supply*. Copenhagen, Denmark. 2014.
75. Brissenden, Erica. *Photograph of allotment housing*. Copenhagen, Denmark. 2014.
76. Brissenden, Erica. *Photograph of Amagerfælled*. Copenhagen, Denmark. 2014.
77. Brissenden, Erica. *Photograph of new housing and recreation*. Copenhagen, Denmark. 2014.
78. Brissenden, Erica. *Photograph of adaptive reuse – silos to housing*. Copenhagen, Denmark. 2014.
79. Brissenden, Erica. *Photograph of street elevations*. Copenhagen, Denmark. 2014.
80. Brissenden, Erica. *Photograph of street elevations*. Copenhagen, Denmark. 2014.
81. Schön herr. <http://www.schonherr.dk/en/projekter/artillerivej-south/>
82. Malling, Ole. *By & Havn, Copenhagen Harbor and New Districts*. 2012.
<https://www.flickr.com/photos/65062477@N05/7671264378/>
83. Brissenden, Erica. *Graphic of periphery -site, google maps photomontage*, 2014.
84. Brissenden, Erica. *Photograph of new housing development*. Copenhagen, Denmark. 2014.
85. Brissenden, Erica. *Photograph of new housing and harbor with pedestrian bridge*. Copenhagen, Denmark. 2014.
86. Brissenden, Erica. *Photograph looking north, access road to parking and courtyard*. Copenhagen, Denmark. 2014.
87. Brissenden, Erica. *Photograph looking west, semi private courtyard and park*. Copenhagen, Denmark. 2014.
88. Brissenden, Erica. *Photograph streetscape and abandoned parking garage*. Copenhagen, Denmark. 2014.
89. Brissenden, Erica. *Photograph streetscape, BIG project, abandoned school*. Copenhagen, Denmark. 2014.
90. Brissenden, Erica. *Photograph abandoned school and parking garage, looking east*. Copenhagen, Denmark. 2014.
91. Brissenden, Erica. *Photograph streetscape and BIG project looking south*. Copenhagen, Denmark. 2014.
92. Brissenden, Erica. *Photograph of semi-private courtyard, BIG project*. Copenhagen, Denmark. 2014.
93. Brissenden, Erica. *Photograph BIG project and abandoned school, looking north*. Copenhagen, Denmark. 2014.
94. Brissenden, Erica. *Photograph on top of the abandoned parking garage*. Copenhagen, Denmark. 2014.
95. Brissenden, Erica. *Photograph between the parking garage and school, looking west*. Copenhagen, Denmark. 2014.
96. Brissenden, Erica. *Photograph of parking garage interior round about*. Copenhagen, Denmark. 2014.
97. Brissenden, Erica. *Photograph of concrete columns and floorplates*. Copenhagen, Denmark. 2014.
98. Brissenden, Erica. *Photograph of streetscape adjacent to Amager Fields*. Copenhagen, Denmark. 2014.
99. Brissenden, Erica. *Photograph of streetscape adjacent to Amager Fields*. Copenhagen, Denmark. 2014.
100. Brissenden, Erica. *Photograph of residual industrial buildings*. Copenhagen, Denmark. 2014.
101. Brissenden, Erica. *Photographs of texture of the site*. Copenhagen, Denmark. 2014.
102. Brissenden, Erica. *Graphic of sun path diagram*, 2014.
103. Brissenden, Erica. *Graphic of daylight hours*, 2014.
104. Brissenden, Erica. *Graphic of sun angles*, 2014.
105. Brissenden, Erica. *Graphic of average temperatures*, 2014.
106. Brissenden, Erica. *Graphic of sun and shadow diagrams*, 2014.
107. Brissenden, Erica. *Graphic of concept diagram*, 2014.
108. Brissenden, Erica. *Graphic of site plan*, 2014.
109. Brissenden, Erica. *Graphic of unfolded longitudinal section looking north*, 2014.
110. Brissenden, Erica. *Graphic of transverse sections through pool*, 2014.
111. Brissenden, Erica. *Graphic of summer swimming*, 2014.
112. Brissenden, Erica. *Graphic of winter skating*, 2014.
113. Brissenden, Erica. *Graphic of concept image – vastness and contemplation*, 2014.
114. Brissenden, Erica. *Graphic of transverse sections through street scape*, 2014.
115. Brissenden, Erica. *Graphic of flexible streetscape and waterfall*, 2014.
116. Brissenden, Erica. *Graphic of concept image, between water*, 2014.
117. Brissenden, Erica. *Graphic of transverse sections through parking garage, bath house, and waterfall*, 2014.
118. Brissenden, Erica. *Graphic of soaking pool, bath house interior view*, 2014.
119. Brissenden, Erica. *Graphic of Wandering the Gap*, 2014.
120. Brissenden, Erica. *Graphic of ascending the roof top, looking over amager fields*, 2014.
121. Brissenden, Erica. *Photograph of site model*, Seattle, USA. 2014.

Bibliography

1. Folkerts, T. Topotek 1 Reader. Libria, 2008: pg 20
- 2/3. Kapoor, Anish. Public Lecture, Museum of Contemporary Art Australia, 2012, <https://www.youtube.com/watch?v=4Mt3fGklf4A>
4. Eliasson, Olafur, and Robert Irwin. "Take Your Time: A Conversation." *Take Your Time: Olafur Eliasson* (2007), pg. 55
5. Hamilton, Ann. The event of a Thread. Exclusive Art21, Episode #177, 2012, <https://www.youtube.com/watch?v=1fJ4umqXGjM>
6. Stiftung Landschaftsarchitektur Eur. On Site: Landscape Architecture Europe, Birkhäuser Architecture; 1st edition, 2009: pg. 41
7. James Turrell with Michael Govan, *Conversations with Contemporary Artists*, Elaine Turner Cooper Education Fund, 2013, Peter B Lewis Theater, Guggenheim, <https://www.youtube.com/watch?v=ox00pFnKS7g>
8. Boettger, Suzaan. *Earthworks: Art and the Landscape of the Sixties*. University of California Press, 2004: pg. 80
9. Corner, James, ed. *Recovering Landscape: Essays in Contemporary Landscape Theory*. Princeton Architectural Press. Hoyer, Steen AB. "Things Take Time and Time Takes Things: The Danish Landscape." *Recovering Landscape, Essays in (1999)*: pg. 73
10. Gehl, Jan. *Life between buildings: using public space*. Island Press, 2011: pg. 53
11. Smith, Neil, and Setha Low. "Introduction: The imperative of public space." *The politics of public space* (2006): pg. 3.
12. Yoshida, Nobuyuki. "A+ U Extra Edition: Peter Zumthor." Tokyo: A+ U (1998).

Appendix A.
Water in its changing states
Video stills + link

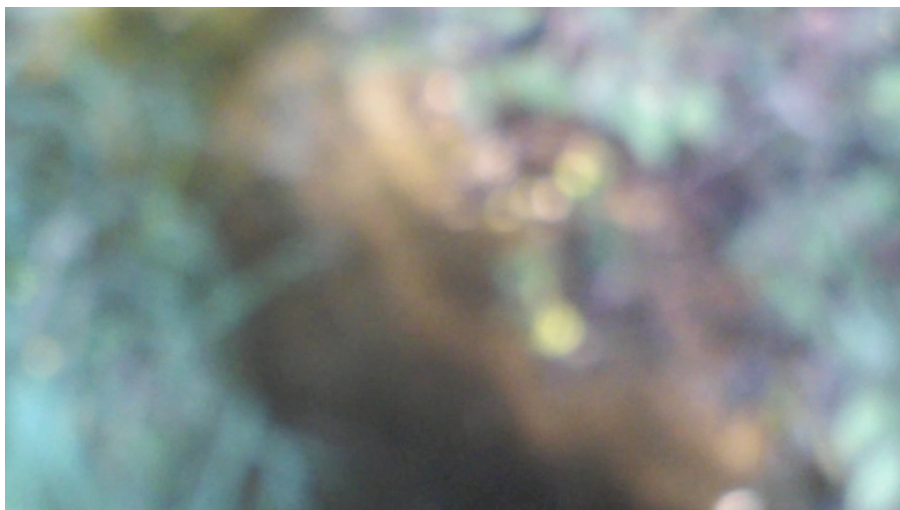
Appendix B.
Traditional Bathing Practices

STILLS

WATER'S SOUND

A documentation of water's many forms and collective sounds.

**[https://www.youtube.com/
watch?v=nM44pfX6_2g&feature=youtu.be](https://www.youtube.com/watch?v=nM44pfX6_2g&feature=youtu.be)**

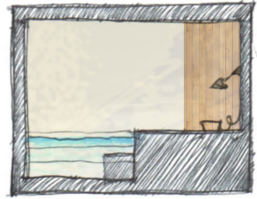


TRADITIONAL BATHING PRACTICE

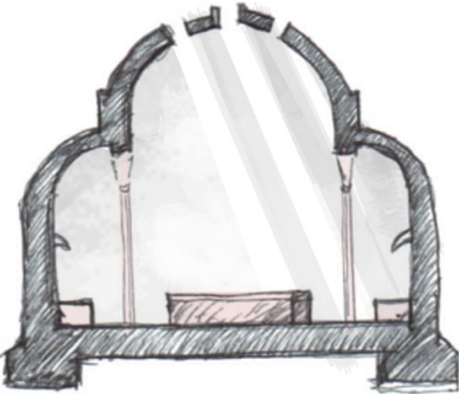
LOCATION	PRIMARY USE	METHOD	TIME	MATERIALS	ATMOSPHERE	PROCEDURE	SETTING
Ancient Rome <i>balneae</i>	social, relaxing, exercise, feasting, education	dry and hot air, water	afternoon daily	stone	loud, place for conversation	warm room, hot baths, sweat, cold bath	urban
Russia <i>banya</i>	relaxing, birth, bridal	minimal wet steam	weekly, special occasions	black or white wood, felt hat, whisk	relaxed, amiable, natural light	heat, cool air, heat, cool water, beverage	rural
Japan <i>sentō onsen</i>	bathing before dinner	hot water, hot spring minerals	early evening daily	tile or wood	at home / quiet at bathhouse	wash, then soak in extremely hot water	urban
Native America <i>inipi Lakota Tribe</i>	ritual, meditation, ceremonial	heated stones and water	weekly, special occasions	dome shaped hut made of natural materials	complete darkness	heat, sand, heat, cold	rural
Turkey <i>hammam</i>	social, relaxing, washing, religious	hot and wet air	daily/ weekly	marble slabs, stone building	loud, place for women to gossip	rest, heat, wash, massage rinse, rest	urban, mosque
Finland <i>sauna</i>	relaxing, birth, bridal, medical cure	dry and wet air, smoke	Saturday afternoon, Christmas, midsummer	unfinished wood, stones, fire, bath whisk	quiet space, natural light	disrobe and enter, bath optional	rural, unlikely to be in city due to fire risks

FORM

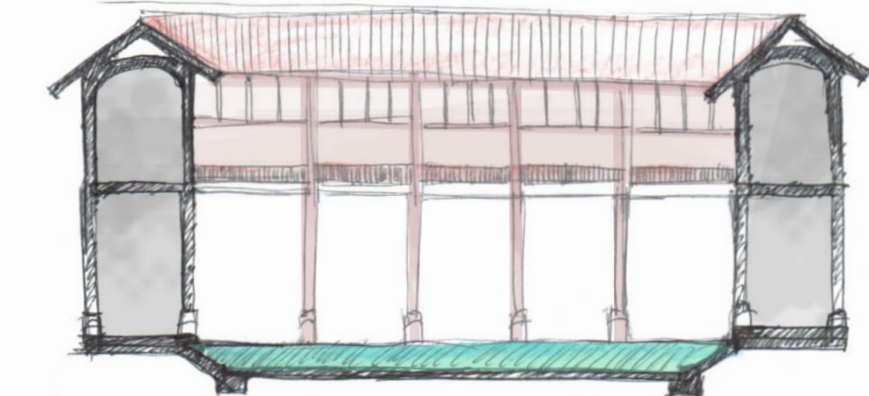
Each country has practiced a particular way of bathing suited to their climate and culture. These traditional forms are still in use today.



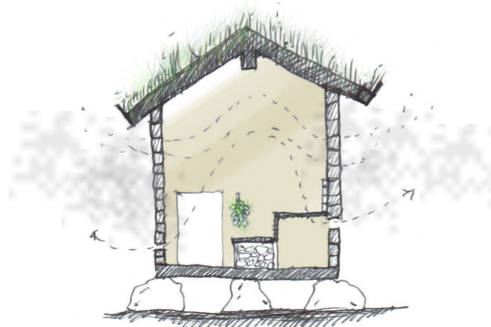
Japanese Onsen



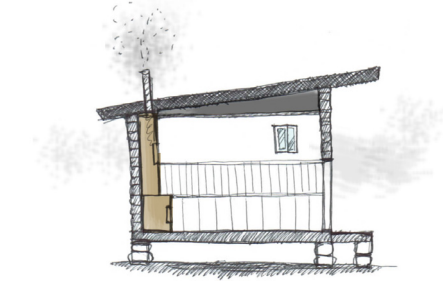
Turkish Hammam



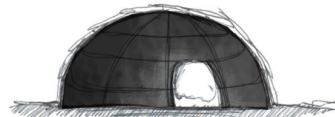
Roman Balneae



Finnish Sauna



Russian Banya



Native America Inipi

ESSENTIALS

Russian Venik
Finnish Vihta
Birch, oak, eucalyptus branches used to stimulate and improve circulation by slapping the skin. In Finland, when you are finished with the sauna, you throw the Vihta to the roof.



Russian wool bath hat
worn to protect the head from profuse sweating, often paired with wool glove and seating mat.



Japanese Yukata
Casual kimono robe worn by men and women after the evening bath ritual. Often wore during an evening meal.



Turkish Pestemals
Small cotton towel worn at the bath to cover the body and absorb water. This garment is worn by men and women, who bath separately.

