

FLOATING IN PLACE

Experiencing nature through Urban Rigger
Copenhagen

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Credits

The photographs used in this article were taken by the informants interviewed. We give special credits to Christopher for the front page.

Abstract

This academic article aims to investigate the relationship that people living on water have with their environment. The article is based on the case study of Urban Rigger Copenhagen, which was conducted through collecting qualitative data from a range of interviews with tenants. This contributes to a better understanding of how residents connect and engage with the designed and natural surroundings in their everyday life. Through the structure of the paper the windows, the weather and embedded practices are highlighted as powerful actors in the development of the relationship between humans and nature. We argue that water is not only a static natural element but an entity people interact with through design. The water, being seen as an active component of life, reintegrates a form of natural life within the city.

Introduction

'Blue Urbanism can take many forms: nurturing new opportunities for physical contact and emotional connection with the ocean's edge, greening ports and shipping operations, extending urban spatial planning and conservation into marine environments...' (Blue Urbanism org, 2021)

The concept of Blue Urbanism described by Timothy Beatley (2014) develops how urban planning and design should look to forge a stronger link between cities, their inhabitants, and the ocean. In line with the current trend of green urbanism, Beatley argues the case of extending these principles to incorporate the ocean into urban life (Ibid.). As stated above, this could take many forms. Cities and municipalities have used blue urbanism in planning new developments, various start-ups

are being created that connect city residents to the water around them, and coastal marine life is increasingly highlighted as an important factor in urban planning (Ibid). But integral to Beatley's idea is that blue urbanism *'asks us to re-imagine ourselves as citizens of a blue planet'* (Beatley, 2011). He states that we need to connect with the ocean, and in order to do that, we have to integrate the ocean in our city planning (Ibid.).

Taking Beatley's assertion that we should develop a stronger connection between people and ocean, we are interested in exploring the ways in which design works in line with location and the natural environment to mediate the experience urban citizens have with water in their everyday life. Through looking at a new concept for housing design on the water, this article aims to contribute to a better understanding of how people living on water connect and engage with their physical surroundings in their everyday life in cities.

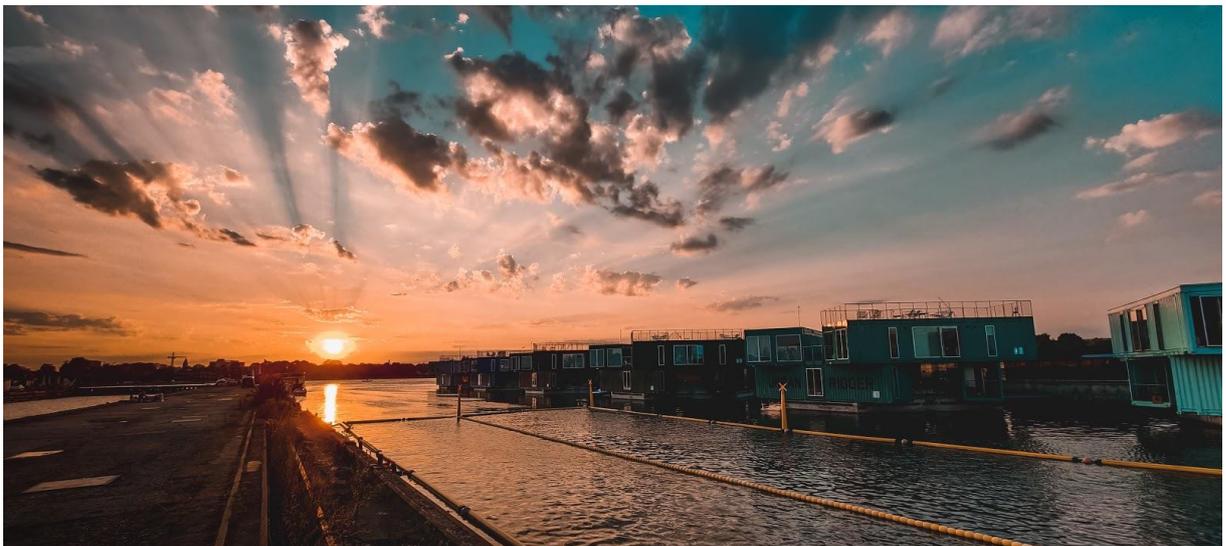


Figure 1. Urban Rigger in Refshaleøen. (Source: Photo taken by Christopher)

Urban Rigger is a project that began in 2016. The idea from Danish entrepreneur Kim Loudrup was to attempt to try and solve the lack of space and land to build inexpensive dwellings, in a city with steadily rising housing prices (Nordregio, 2018). Loudrup took on the role as developer of the project, and teamed up with the Bjarke Ingels Group to create the first rigger of the project (Ibid.). This project reuses shipping containers to form a platform that floats in the shore of Refshaleøen, Copenhagen.

According to the Urban Rigger website, the project is currently formed of 6 floating platforms. Each one of them has 12 apartments (9 for couples and 3 for one person), a green courtyard, kayak dock, bathing platform, BBQ area, and communal terrace. It also has a basement with 12 storage rooms, a lounge

area that includes a kitchen, laundry, and technical room. As we will show throughout this article, these platforms provide a different way of dwelling that generates direct connections to the surroundings.

The designed space is connected to its direct environment not only through being emplaced on the water, but also because of the technical solutions that have been implemented, aiming to create an environmentally sustainable residence. Each rigger has solar panels located on the roof of one of its containers, and utilizes the water as a heating source with a low energy heat pump that boosts temperatures to between 40-65 °C, reducing emissions by 81% compared to conventional heating (Urban Rigger, 2020).

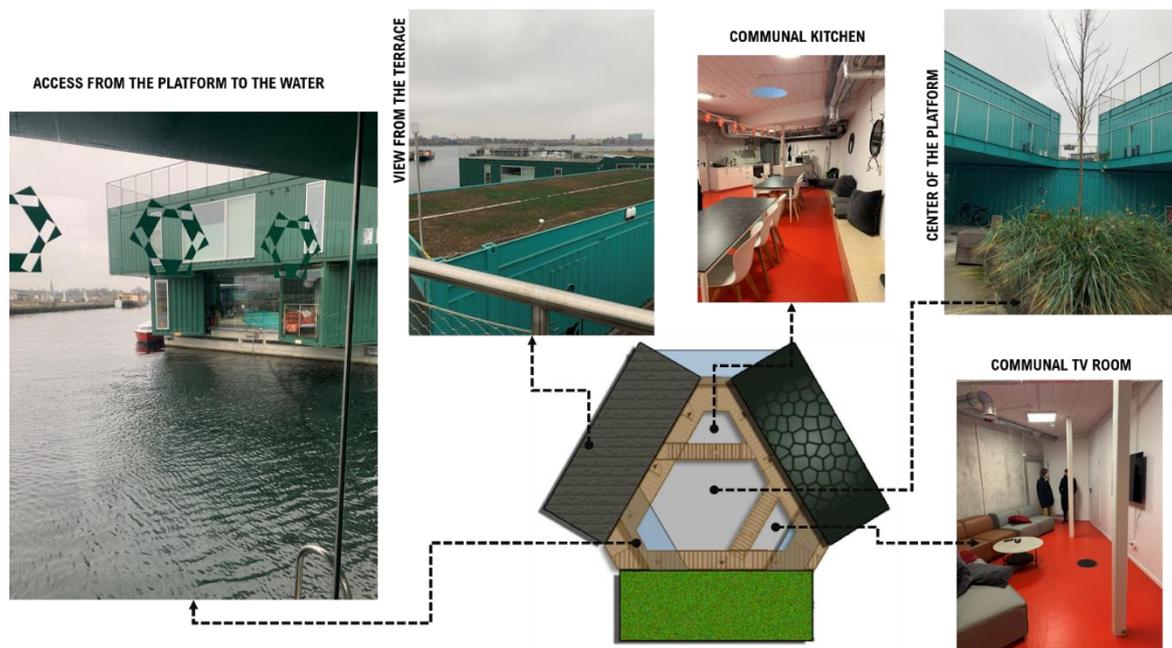


Figure 2. Urban Rigger-Space identification. (Source: Created by the authors using data from Urban Rigger website)

On top of these specific technical design elements, according to the real estate company for the area of Refshaleøen (Refshaleøens Ejendomsselskab A/S), Urban Rigger is also contributing to a general urban renewal of the area:

‘Urban Rigger is leveraging unused spaces to create housing while also providing the ability to connect more containers and create modular floating villages’ (Refshaleøen org, 2020).

The Urban Rigger residences are currently co-existing with several elements within Refshaleøen that are important to mention in order to understand the ‘urban dynamics’ created for the residents. The popular Reffen outdoor food-court, several restaurants, art galleries and offices are the main land uses within the surrounding area of the riggers. Public transport connecting the harbour to other areas takes the form of the 2A bus and the ferry line, while boats from the nearby naval base go by regularly. Apart from these transport methods, the most common access between the

Urban Rigger residences and other areas comes through cycling. With this in mind, however, it is important to point out the relatively secluded nature of the space.

Refshaleøen is located on the most northern point of the island Amager in the city of Copenhagen. It is constituted of a harbor that has been characterized as industrial from 1872 to 1996 (Urban Rigger, 2020b). Currently, despite its industrial heritage, the place is changing its use in response to the urban dynamics and variable changes of the city. Therefore, although the place is in a continuous process of transformation, the appearance of the location is still a post-industrial area under development. The existing infrastructure in the area is sparse and located on repurposed industrial sites, with many usual urban land uses such as grocery stores, other residential housing, or commercial areas further away than in a typical urban environment. These elements mean that while the area is liveable and slowly evolving, the space is distinctly separated from the more populous areas of the city.

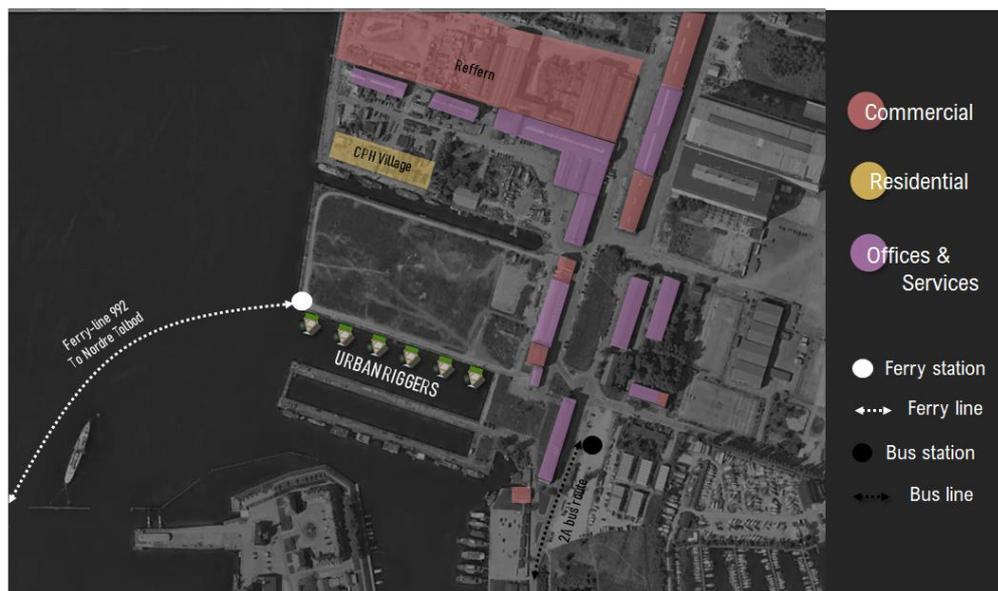


Figure 3. Urban Rigger-Immediate Urban context. (Source: Created by the authors using data from Google maps)

Within this urban context we can look at the aim of Urban Rigger in contributing to the new development of the area, with a focus on improving the waterfronts of Copenhagen:

'Cities across the world are striving to achieve many of the same objectives for their waterfronts. They seek a waterfront that is a place of public enjoyment, and want a waterfront that serves more than one purpose: People want a place to work and to live, as well as a place to play. Accordingly, a place that contributes to the quality of life in all of its aspects; economic, social and cultural.' (Urban Rigger, 2020c)

Urban Rigger state a clear intention to add to the quality of life in a holistic way. With this in mind, as Peter Mayntzhusen, COO of Urban Rigger, says, *'when you live on water, you [are] also much more aware of your way of living, and you're more concentrated on how you handle nature. And you think more about it, because you look out at the sea.'* Our research looks to understand the unique experience of dwelling in a set of containers located directly on the water.

Recent research regarding water and design mainly focus on water as a resource utilized through design such as rainwater harvesting in the urban environment, or integrating water in design for purposes provoked by climatic changes such as shifting shore-lines. Little research has been done regarding how tenants living on water interact with the water through their everyday life. We argue that the water plays a major role in the experience of the inhabitants, based on the results of previous

scholar research done by David L. Uzzel, which indicates that the users of a designed landscape perceive and categorize the elements of the surrounding environment in which they live in. According to the results, one of the two major groups that people used to categorise the environments that they were exposed to, was the presence or absence of water (Uzzell 1990, 4). As Uzzell suggests, 'the nature of the environment' and the human experience, thoughts and feelings that are shaped around it are almost inseparable factors (Op.Cit, 1). This points out the interrelation between the social, cultural and physical aspects of a space, in regards to the subject that senses these aspects and creates them at the same time. This article is based on data obtained to expose the perceptions and meanings of the individuals that perceive the space (Op.Cit, 4).

Firstly, a questionnaire was conducted and presented to the inhabitants of Urban Rigger. The purpose for this questionnaire was to establish a baseline, in regards to which elements of living in a container on a floating platform seemed most important for the tenants participating. Then a visit to the place and a 'pilot' interview was made, with the aim to understand the important elements to consider for further research. Accordingly, we produced semi-structured guides in order to conduct our interviews. These were mostly done via video call because of the current situation with the Covid-19 pandemic. For the same reason, it was decided to not do any kind of participant observation at the site. We interviewed 5 residents of Urban Rigger (2 men and 3 women), most of whom are students with jobs and are in their mid to late 20's. Most consider themselves open minded and embrace creativity through different

approaches or fields. They come from differing places in the world with distinctly different natural geographical features. These include urban settings, the countryside, mountains or coastal cities, but they had never lived on water before. All five informants are anonymized and therefore their names have been changed. As a complement, we had an interview with the COO of Urban Rigger Peter Mayntzhusen, to understand further the insights and aims of the project. These informants thereby provided the qualitative empirical data on which the analysis for this article is based.

After an initial analysis of the qualitative data, a theoretical framework was formed around the most important topics. This framework includes approaches to Gibson's theory on affordances, Phil Jones' theorization of sensescape, Alan Warde's theoretical concept of consumption and appropriation, and Tim Cresswell's theoretical understanding of place complemented by the concept of meaning of Margarethe Kusenbach.

According to Gibson's theory of affordances an actor '*perceives the physical environment in terms of how well it serves the actions that he/she is trying to perform*' (Gibson 1979, cited in Stevens 2014, 278). Through this particular theoretical lens, Urban Rigger is examined in this paper as a type of environment and as a designed product that provides a variety of '*natural and material affordances*', around which the tenants form *practices* (Stevens 2014, 278). The term affordance in this case, reflects the '*actionable properties between the world and an actor*' (Gibson 1977, cited in Norman 1999, 39) and Urban Rigger is analysed as a designed physical product. In this case, we consider 'material affordances' to be the

designed elements of the space, which facilitate the role of bringing potential practices to the attention of the users. Under the umbrella of 'natural affordances', we consider the opportunities for practice that are provided by the landscape, which is a natural set of elements.

While design and nature provide opportunities for practice, the inhabitants and users of the space utilise these options according to the demands and aims of practice in their everyday lives. The process of practicing the space involves both action on and interaction with the environment, which is interrelated with a multilayered sensorial experience for the tenants.

Jones (2012) develops the concept of *sensescape* as a way to reintroduce the senses in the description and use of landscape and to a wider extent, geography. As he explains it, senses are the middleman in between the environment and the individual (Jones 2012, 648). Based on this, it becomes necessary to understand how people make use of their senses to live, dwell and more generally make sense of their surroundings. In this context, (re-)introducing the senses in the analysis of dwelling becomes crucial because it allows to get a deeper understanding of the experience of the place. In this article, our aim is to better understand the relationship between people to their surroundings. '*The senses sit at the blurred boundary between body and environment and can be seen as a key mechanism through which power acts on the body of an individual*' (Op.Cit, 645). In light of this we can say that the sensescape of Urban Rigger is an important aspect to analyse in order to understand the experience of the residents. Thanks to its specific location and design, the sensory

experience allows people to rethink their place in the world.

We propose that these affordances and sensorial experiences are defining how the subjects are interacting with and reacting to the surrounding environment, driving appropriation which in turn affects how the tenants perceive the space. In order for us to analyse these dynamics, we have chosen Alan Warde's theory of how consumption creates appropriation. Alan Warde theorizes consumption as the outcome of the subject-object relation, when this relation generates a practice, whether it involves the purchasing of an object or not (Warde 2005, 137). Warde goes on to argue that these practices are not formed by appropriation, rather appropriation occurs within the practices in relation with the consumed object, which then leads to create the meaning in regards to the object (Ibid.). In this article, Warde's theory of consumption and appropriation will be the analysing tool to understand how the tenants of Urban Rigger create an understanding of the place, through their practices involving the physical surroundings.

In order to then talk about how meanings created by practices go on to define a *sense of place*, we will use Tim Cresswell's theoretical concept of place and Margarethe Kusenbach's concept of meaning. '*Places are practiced. People do things in place. What they do, in part, is responsible for the meanings that a place might have*' (Cresswell 2020, 117). As Cresswell states, the practices a person uses to engage with a place then goes on to create meaning and meanings '*can be very personal and connected to individuals*' (Ibid). In this article, we aim to analyse the process of creating and shaping

meaning at Urban Rigger, taking into account the interaction of the tenants with the built element (materiality) and nature, through the ways that they practice, sense, and appropriate the space. We will approach this chain of relations in accordance with the idea that mundane practices and routines can be enhanced and transformed into meaningful parts of one's life when the person of reference engages with the surrounding environment (Kusenbach 2003, 469-470). As Cresswell continues, '*In any given place, we encounter a combination of materiality, meaning, and practice*' (Ibid.). This means that the practices, the meanings developed from the practices, and the materiality that is the object of those practices, work together to create the sense of space in a holistic way.

This article will contain an analysis based on the data produced and the theoretical framework mentioned above, in order to provide answers about how people living in Urban Rigger connect and engage with their physical surroundings in their everyday life. The analysis will be divided into three different sections that aim to display some of the most present elements of the physical and natural surroundings, and how the tenants interact with those elements. The first section of the analysis will contain a breakdown of the windows and how they integrate the surrounding nature into the apartments. The next section will look at the weather and how it is sensorially experienced. The final section will be composed of an analysis of two different examples of practices that are enabled and embedded by living on the water. The arguments made throughout these three sections will lead to conclusions on the importance of integrating water in urban design but also present how the

knowledge produced in this article can contribute to the academic development of blue urbanism.

Windows to nature

Beginning our analysis from the material aspect of the space, the windows and balconies are highlighted as one of the most dominant elements in the flats on Urban Rigger. This is due to the fact that the practices that are being realised around them act as a point of contact between human and nature. Most of the participants refer to the windows in relation to their everyday life practices, which move within a broad spectrum of rituals and habits. The size of the window is quite extensive when compared proportionally to the space. In some cases the window occupies an entire side of the container. In this way, the window is a dominant feature of the design.



*Figure 4. Windows of Urban Rigger.
(Source: Photo taken by Christopher)*

The tenants engage with the space distribution and the placement of windows and balconies as ‘frames’ to the outside, leading to the natural affordances provided by the landscape to create dynamics between the resident and the design. Practices, such as fishing and jumping into the water directly from the window of the flat, are common among the tenants and are referred to in a positive tone, as enriching additions to their life at home.

Kate (28), is a PHD student of climate science, who currently spends a lot of time in her flat, as she works from home due to the COVID-19 restrictions. She has grown up in a coastal city and has lived in a double flat on Urban Rigger for 13 months. She

talks about how the direct accessibility to water is reframed by the tenants when they decide to remove the safety gate from the window frame, to make jumping out of the window possible. This act demonstrates how the residents are appropriating the design of the space to incorporate the natural environment into their everyday lives. The housing space at Urban Rigger is a designed product embedded in a natural setting. This combination of characteristics and spatial affordances seems to be the inspiration for conducting practices that are not typical or usual for a housing setting. In this case, the space seems to be consumed by the tenants through the appropriation of the window. By

removing the safety gate, Kate and other tenants of the Riggers changed the aim that the window was originally designed to serve, from providing simply visual contact with the outside to direct physical engagement with the water itself. In a metaphorical sense, one could suggest that the window changes from a visual 'exit' of the built scenery into a bodily 'entrance' to water. The process of shaping the material add-ons of the window aims to a new kind of utilisation of the design. The people who are interacting with the space seem to aim on enabling a connection with the natural outdoor environment, by diving into the water. In this sense, the window is reappropriated and transformed into a point of contact between the built environment, the natural environment and the person.

Christopher (25) grew up in a mountainous region away from the ocean. He is studying English and Danish, and openly expresses an interest in photography and architecture. He has been living on the Rigger for 8 months. He refers to the way that jumping out of his window makes him feel like he's 'living in nature', while at the same time nature becomes a part of his home. *'During the summer, it's amazing. We can open them and jump out of the window. Which is really cool. And it's great to get to live in nature, so it's great to get nature in.'* From the way that Christopher describes his act upon the window, having the option of opening it and jumping directly out of it, it seems that the stages of the practice occur in a natural and quite immediate flow of events, in terms of space and time. The windows allow the practice mentioned to be actualised in a way that unfolds organically, as a derivative of the proximity and accessibility to the natural surroundings. The large windows facilitate a bridge between the indoor and outdoor environment, with

the residents finding themselves transitioning from one side of the glass to the other, in a direct way. They have the possibility to access the outdoor environment without going through the mediating step of transportation to another location, experiencing nature as an extension of the home environment, which contributes to Christopher's feeling that he is living in nature.

In a similar tone, references are made about fishing from the window by some of the residents, one of which is Lau. He (30), is a Master's student who has moved a lot in the past, living in several different countries. He has been at Urban Rigger for over a year now, and says the small size and repurposed shipping container make this close to his dream apartment. Both Kate and Lau describe the spatial affordance of fishing from their flat's windows with words such as 'amazing' and 'intense'. These practices are framed by them as opportunities to try new activities that they are able to engage with because of the design of the window and the location of the housing platform on the water, alongside the motivation facilitated by the social dynamics at Urban Rigger. The option of opening one's window to the sea, as described here by the residents, enhances the interrelation of natural and designed elements described above, with the person having the opportunity to incorporate themselves bodily in the water, simply by jumping out the window, or to abstract parts of the sea life and bring them into the space of their home, through the frame.

The way that the interviewees talk about the natural elements at Urban Rigger are interestingly phrased with words such as 'around' or 'within' to describe

their positionality in the natural surroundings, even when they are inside their flat. Similarly to Christopher describing living 'in nature', Lau talks about the role that the large window plays in his sense of the space: *'I sit here most of the time on this couch, that's why I put this couch here. And opening the massive window [...] I don't know, you can see that I'm inside, but I have this massive window. And then I'm sitting here and I am the same inside that I am outside.'* Here we see that Lau has located his furniture according to the impact that the window has on his experience. The process of appropriating the space by positioning the couch in order to sit by the large window mediates his experience in a way that allows him to stay in contact with both sides of the glass. As a result, the distinction between inside and outside seems to be blurred in his sense of place.

Moreover, windows are contributing to a new meaning of everyday life activities through the ways that the designed elements are appropriated in the space. As Kusenbach (2003, 469) suggests, *'one interesting aspect of environmental engagement is the fact that we are able to reframe our spatial practices to enhance their primary meanings and functions'*. Being in and interacting with a specific setting impacts severely the way that people perceive the meaning and nature of their practices, within a given space. Often the functional aim and the symbolic meaning that hide behind the act of a practice, shift through the process of environmental engagement and appropriation, leading to them becoming 'reframed'. The tenants of Urban Rigger often refer to consciously standing next to the window, or intentionally placing furniture in such a way that allows them to experience the effects of

both the indoor and outdoor space. They reframe the ways that they engage with the space by arranging their furniture in specific locations or removing the barriers of the windows, in order to achieve physical and sensorial contact with nature. As a result, the meaning of these practices is enhanced. It becomes interrelated with the presence of nature, leading the tenants to feel like they live 'in' nature, as they often state.

The ways that daily routines and rituals are practiced inside the flat are often shaped around the presence and the location of the window. One element shown to be important to the residents is that the window allows visual contact with the outdoor environment to be incorporated into their everyday activities. Ditte, (24) is from a small city and has lived at Urban Rigger for 8 months. She is studying for her Bachelor degree in Social Science and has a special interest in sustainability and food waste. She demonstrated one way in which this visual connection impacts her routine:

'We sit in the queen chair we have by [the] window, or sit on the floor sometimes, depending on what you feel like, and just look out the window. And it seems a bit. Yeah, sure you do that. But we actually do, because you can see the waves and it's not just looking into another building. It's kind of comforting and if I'm really stressed out or really angsty or stuff like that, it really helps to look at the waves, for example. And sometimes, swans swim around you. [...] Every now and then I need a break. So I'll sit in the queen chair by the window, looking out.'



Figure 5. Swans seen through the window.
(Source: Photo taken by Andrea)

Ditte demonstrates here how the transparency of the glass removes a barrier between human and nature and, as our data indicate, the 'outside world' affects the rituals, through which the tenants consume their homes. The notion that the visual element adds something to the residents' everyday lives is supported by Andrea (23), a Biology student in the second year of her bachelor program. She has now been living there for a year, and contrasts Urban Rigger to her old apartment in Copenhagen: 'When I lived in Nørrebro, when I had a small apartment, or I had a room with a friend, I felt like crying because I couldn't even look out my window. It was just a building [...] just a building on the other side. [...] Just in the dark and your tiny room.' The

visibility of the natural surroundings provided by the window allows Ditte to feel less stressed when having a break from working, and seems to comfort Andrea when simply being in her apartment. Therefore the visual accessibility to the waves, the swans swimming in the sea and the natural setting appears to have a transformative impact on their experience around mundane routines through the visual presence of nature.

When Ditte was asked to describe the development of a typical day at her flat in Urban Rigger, she referred to the fact that while making some morning coffee she appropriates the blinds on the window in order to maintain visual contact with the sea. The level of proximity to the ocean elicits tendencies for appropriation of the place specific to maintaining contact to nature, and taking advantage of the characteristics provided by the spatial design to locate and organize it according to the windows and the affordability of water gazing.

'But I get up, put over some coffee, take the curtains up and down depending on what I feel like. They can move both from the bottom and up and from top and down. So you can do kind of like in the middle, you can do whatever. And that's really nice, because the windows are big. So you can put them right where people walk outside, but still get both the water and the sky. So that's what I mostly do.'



Figure 6. Morning coffee in the Balcony. (Source: Photo taken by Andrea)

She goes on to develop the statement above by describing her experience of working on her project from home: *'The two big boats that go from Oslo and back, I can see them from where I'm sitting working. And it just, it feels like the world is just out there and I'm not just being alone in my apartment.'* The way that visual accessibility to the natural surroundings is provided through the window of an Urban Rigger apartment is transforming Ditte's working routine and morning ritual to be *'saturated with layers and contexts of meaning'* (Kusenbach 2003, 470). Extending the thought of reframing one's spatial practices, in light of environmental engagement, it seems that the mundane routines and rituals of one's daily life turn into practices that contain deeper and diverse layers of meaning, being the outcome and meeting point between the space and the human. In line with Kusenbach's observations, we see that Ditte's practices and daily

routines, such as having a morning coffee and taking breaks from work, through their inclusion of nature, have added notes of emotional elicitation and can become more 'rewarding' by establishing a connection with the natural outdoor environment. Centering these practices around the window to allow water gazing contributes to *'thickening the texture'* of Ditte and Andrea's *'habitual practices'* by reducing their feelings of anxiety and loneliness, and by enhancing the positive effects of being in contact with natural stimuli, both on the side of aesthetic pleasurability and the feeling of companionship (Ibid.)

In discussing the immateriality of architecture in her work, Doreen Massey states that *'spatialities are constructed as well by sound, touch, and smell - by senses other than vision alone'* (Massey 2001, 464). Spaces are perceived, from this perspective, in the

form of a dynamic assemblage of sensorial intake that is not only based on the appearances of the space but also on the stimulation of hearing, touch, and smell, as well as others. At Urban Rigger, apart from providing what the tenants describe as visual benefits to living there, the windows also allow sensorial engagement with the natural surroundings, the water, the sky and the natural habitat outside of their flats, through embodiment. Christopher refers to the practice of opening the windows and keeping them open for as long as possible, in order to feel nature through a variety of senses:

'I really like having my windows open, because then you hear the sound of the sea. And you feel kind of part of nature because it's really, like, the windows are so big. One of my walls is only windows, which is really nice. [...] So I'm feeling the wind maybe a little bit when the windows open, or also hearing the sounds from the birds and stuff like that. That's really cool.'

The effect of environmental stimuli enters through the senses into one's body, as Christopher's statement indicates here. The conscious practice of opening and keeping his windows open to maintain sensorial engagement with the wind and the sounds of the sea and the birds, form his experience of place and shape the meaning of it according to the embodied practice. Through the affordances given by the design, residents experience the place

through practices embedded in a positively colored sensorial engagement with nature. Christopher's body itself becomes a subject and experiences the 'world' 'through a certain openness to the outside - a sense of being in touch with the world' (Cresswell 2020, 122). As Cresswell describes, the human body gains centrality in the experience of the world and becomes a 'sensor' that is open to anything placed outside of it and in the surrounding space. This quality and capacity of the body constitutes a connection with the environment and shapes the very subjective sense of place for the person. Christopher's sense of place is constituted by bodily engagement with the environment and by the habitual practices that are connected to it, leading to his significantly positive experience and the maintenance of his desire to repeat the practice that establishes his relation to nature.

The above establishes that the windows of apartments at Urban Rigger serve several different roles in creating a relationship between the tenants and nature. They allow a physical connection in the form of jumping out the window or fishing, practices see an appropriation of the space to make the activities possible. This is also the case for more mundane and everyday routines such as working or drinking coffee, as furniture is located around the window to incorporate the outside environment and the additional meanings it gives to the experiences of the residents.

Sensing the weather



Figure 7. Raining drops. (Source: Photo taken by Christopher)

As well as the window connecting the residents to the outside environment, the seasons and the weather itself play a central role in experiencing Urban Rigger. They have an influence on practices and the use of the space, and therefore on the sense of place the tenants create (Cresswell, 2020). They also to a large extent create a sensescape that contributes to the tenants' experience and sets Urban Rigger apart from a typical city residence.

To start with, the seasons have a significant role in determining the ways in which the space of Urban Rigger is used by the residents. Practices

described as taking place in the communal spaces around the rigger, such as reading, drinking, sunbathing, barbecuing, and having parties, mainly take place outdoors in the summer, while activities such as communal cooking and poker games move to the 'dungeon-like' basement in the winter. There is something of a stark contrast between how the residents describe the space during these periods, but what is clear is that in warmer seasons the relation with nature and the practices that the natural affordances allow change significantly:

'Now we're talking about doing plans for the summer. Like maybe building a platform, so we can barbecue on the water and stuff like that, which I think would be very cool. But now in the winter, it's kind of limited.'- Christopher

'Interviewer: Did you play poker in the summer as well?

Kate: I think that's something that we recently started doing and maybe it's because it's winter time, and like, we were looking for something cozy to do indoors.'

As demonstrated above, the summer encourages people to be outside and in physical engagement with the natural elements, whereas in the winter

they spend more time indoors. If we take affordances as *'the opportunities that the physical environment might provide for a range of human perceptions and actions'* (Stevens 2014, 278), we need to take into account how the seasons have an impact on what the natural and material affordances are. These affordances are subject to changes depending on the weather and are therefore not static but dynamic, changing throughout the seasons and more regularly due to the weather. This in turn affects how the residents use the space.

While changing practices based on the season may seem obvious, the residents have a more nuanced understanding of how the weather affects them in their living environment, and as a consequence how it affects the ways in which they use the space. Following on from Kate looking for something *'cosy to do indoors'*, we see that Christopher has appropriated his apartment with a specific regard for the weather:

'I tend to maybe make my home or, I noticed I make this home way more cozier than I did back in my country. Because here I actually, like when it's windy and rainy outside, you kind of want to go inside and have a cozy time. Whereas when it's sunny, you notice it right away, and you go out. [...] Everybody has the urge to go out and enjoy the beautiful nature. Whereas I didn't have that before. Before I was just inside or outside no matter the weather.'

As previously mentioned, it is common for residents to locate their furniture close to the window in order to bring visual contact with the ocean into their everyday lives. Here the weather too can be seen to shape the way people create their home environment. For Christopher, making the apartment *'cosier'* has a direct relation to being aware of the weather as a result of living at Urban Rigger, demonstrating a material appropriation of the space that is incorporating the outside environment into the apartment. Furthermore, as the notion of *sense of place* from Cresswell (2020, 117) allows us to understand, place as impossible to take apart from the use that people make of it. We can therefore understand that this appropriation around the weather is determining physically what the tenants do with the space, as well as contributing to their conceptual sense of place. But in order to understand Cresswell's sense of place further, a proper investigation of the sensorial elements of spatiality are needed. In line with Massey's understanding of spatialities, as introduced in the first section of analysis, the senses are part of the understanding of space as it permits a connection between the environment and the body (Massey 2001, 464). We will return to the role of the senses below.

The wind is one of the most notable elements of weather that not only affects practices but also is integrated in the materiality and the place. As stated by different tenants, when the wind is blowing strongly, they get very bad Wi-Fi signal, which is problematic for those who are students, or working from home. Wind also modifies the use of the space. Andrea explains:

'Yeah, well, we don't go now because it's not summer but during the summer day I would definitely start getting chilly because the wind came in, even though it's very sunny, and the next day, it's the same temperature, the same amount of sun, but there's no wind, and you can get a nice tan, feel comfortable.'

The wind appears to be affecting both the technical functioning of the rigger and the leisure practices of the residents, and both are a regular reminder that they are living on a floating platform that moves and interacts with the water and weather all the time. Even on a nice summer day, appreciating the sun on the rooftop may not be possible when it is too windy. Again the affordances of the place are subject to change in relation to the weather.

While these can be seen as specific instances of the wind having an effect, it is also spoken of as impacting the overall experience of living at Urban Rigger. Christopher says:

'Now I live on the sea. Which is amazing. I really enjoy it. But it's also very rough. Like, you really feel the weather every day. It's very windy out here. And you feel this when the storm hits the rigger, it's shaking.'

The wind, as the seasons, makes the experience of living on Urban Rigger what it is, and it cannot be switched off. The wind especially forces the residents to experience the natural elements whether inside or outside the apartment. This is clearly demonstrated through being in the front row for more dramatic weather. Christopher says a thunderstorm at night was compared to *'a ride at Tivoli,'* adding, *'it's a big experience, but I really like it'*. What can be noted is that, through the natural elements, the place engages its tenants sensorially in ways that are specific to living on the water's surface. Residents talk about the wind, the rain and the waves having a big impact on how they engage with the place. The multisensory elements of living on Urban Rigger give the feeling of being at sea, which moves the space beyond being a typical terrestrial apartment. This is reflected in several tenants referring to Urban Rigger as a 'boat'. The weather is felt through the material properties of the rigger, creating this new sensescape that is different from the city centre, making them feel at sea. The concept of sensescape widening the one of landscape, allows our analysis not to be limited to the visual sense only, but extends to the other senses (Jones 2012). The sensescape of Urban Rigger is defined by the natural and perceived affordances of the place. Therefore it is defined by its materiality - floating - and locality - away from the city center, at the entrance of the harbour.



Figure 8. Fog in Urban Rigger. (Source: Photo taken by Ditte)

Floating is a stand-out example of how the tenants experience this sensescape. In the interviews, they spoke of how it implies a lot of new sensory stimuli: feeling the boats that come by through the harbour, or when the weather changes. The sensescape makes the surroundings part of the apartment, and similarly the apartment part of the surrounding environment. Lau explains:

“it's much more, like, it's not just a tree that is there. And it's beautiful to look at. This tree- this tree or this piece of greenery is never going to interact with you. But this water is interacting with my day, like it makes my apartment move. You know, like I can feel if the day is quiet outside from my bed without having to open my eyes, I can see - or I can see if it's a windy day because the apartment is moving. So it's a way that I don't know I never thought in an apartment that this will be possible, to know if it's a quiet day by just sitting down, I would never experience that.”

Thanks to the sensescape of Urban Rigger, the tenants are in constant sensorial connection with their environment. So even when the weather does not allow them to use the outside spaces, it is through the sensescape of the place that the connection is made between inside and outside. The tenants declare having a different understanding of natural elements by living physically close to it. Lau continues :

“Living here made me really appreciate the water as a living thing, like a changing thing. Like for example, today the water is very still, there is almost no wind. But some days the water is absolutely still. And it's magical because you look at it and it just doesn't move at all.”

Indeed, by having the opportunity to feel changes in the weather through the water, what comes out is a general feeling that the sea is a lively element. Being on the water allows the tenants to see and

feel every change physically. When weather changes, the water changes, and as a consequence Urban Rigger, floating, changes as well.

The ocean becomes 'a living thing' for the people living on it. It is not a simple natural element for them, it becomes an integral part of their experience of the place and therefore of their life. To a large extent, they say they feel more connected to their direct environment and often compare it to previous city life experiences. In his article, Jones uses Tim Edensor's concept of 'blandscape', in order to explain the general tendencies to "[protect] *the individual from 'unpleasant' sensory stimuli*" in cities (Jones 2012,3), and define city sensescape as '*deodorised spaces of modernity*' (ibid.). However during our interviews we found that the city was instead related to strong sensory stimuli: the noises, the lights, the never-ending movement. Lau explains:

'We have nature and quiet. I can sleep with my windows open in summer. [...] And I would not hear a car, I would not see an ambulance. I will not hear people screaming. And that's something that very rarely anyone in the city can do. So it's a very interesting thing, because I'm literally, I'm in the city center, but I'm isolated from the city center.'

Despite articulating he is living 'in the city center', Lau demonstrates that it is the sensescape of Urban Rigger and its surroundings that create a feeling of isolation from the city. Therefore, even though they are more subject to climatic variations, the tenants still describe the living at

Urban Rigger as 'meditative', 'calm', 'quiet'. In addition to these positive descriptions of the sensescape at Urban Rigger, it is interesting to compare that the strong sensory stimulation experienced through stormy weather, described as like '*a ride at Tivoli*', is spoken about as positively enhancing the experience, while the strong sensory stimulation of the city has a negative meaning for the tenants. To relate to Edensor's blandscape, what is demonstrated here is that, if not all the city sensescape is bland, the sensory stimulation connected to it is perceived negatively. This contrasts to both the strong and more gentle sensory stimuli at Urban Rigger, closely linked to the natural environment, being described positively as exciting or calming.

To come back to Jones, and in light of the above we can say that the sensescape of Urban Rigger has an impact on people's reality and their relation to space. Thanks to its specific location and design, the sensory experience allows people to rethink their place in the world. As Jones puts it the concept of "*body-in-the-world [...] locates lived experience as an intersubjective space between perception and the body. The porous boundary between the individual and the world is therefore subject to constant negotiation mediated by the sensory*" (Jones 2012, 4). A person's relation to their surroundings necessarily comes through the senses. Therefore, when the sensescape is changed, the relation one has to the place is changed as well. Lau explains how his relationship with the water has changed since living at Urban Rigger, even though he has lived next to the sea for a significant period previously. He explains that where he is from "*it doesn't affect my life, you know? It's there, I can go and I can swim. That's*

okay but if the water is very calm, I don't see it, if the water is very wavy, I don't see." Whereas in his apartment on Urban Rigger he *"can feel that [he is] moving with the water and become part of one thing."* This stresses the necessity for him to have lived *on* the water in order to integrate it into his life in a more nuanced way.

The seasonal changes and weather variations are felt more because of the materiality of the place and its location, but it is by understanding people as sentient beings that we can understand their relation with the surroundings. The notion of sensescape is a way to get to the reason why people feel so much more in line with their environment at Urban Rigger, in comparison to

where they lived before. Being physically close and moved by the environment in everyday life through their senses makes them feel connected to it. Being able to sense all the surrounding natural elements this way helps to understand why the tenants stress they experience living *in* nature. Most of them, in comparison to living in the city center, through explaining their sensory relation to their surroundings, express a feeling of being part of nature. Christopher explains that *"even though I might be at home the whole day and not really go out. I'm still kind of part of the surroundings, which is cool."* Being connected to the place by their senses allows the tenants to create a special relation with the place. They become part of the place by feeling it and engaging with it.

Practices in Nature



Figure 9. Fishing in the Rigger. (Source: Photo taken by Kate)

There are also many ways in which the tenants engage with nature through practices and activities. The rigger provides several affordances for people to have a relation with nature, which in most cases comes through direct access to water. The platform provides spaces for people to create and embrace activities that were not practiced before in an ordinary setting. The 'kayak dock', a pool-ladder directing people to the water, and moorings give material opportunities to the residents, so they can go swimming, fishing, kayaking and boating from immediately outside their homes. Although some of these are activities dependent on weather conditions and the capacities of each resident, a general pattern is that these types of activities become more frequent in their everyday lives. As Kate affirms, *'things that aren't*

usually things that you do in your everyday life can be more common here.' As we studied the space of Urban Rigger and how the tenants use it, we noticed that the tenants were engaging with activities that emerged from the specific conditions of design and environment. Taking into account the elements of materiality and nature highlighted before, we see that the designed space and the fact that the rigger is directly affected by water have provoked the development of new practices, which the tenants would not have otherwise been performing in a different setting. As a consequence, residents have developed some practices at Urban Rigger that are worth analyzing for our study. Based on our interviews, we have chosen to focus on the two outstanding examples of practices to have developed due to living at Urban Rigger: winter bathing and managing trash. Both suggest a connection between the tenants and nature.

Andrea mentions that she started practicing winter bathing after moving to Urban Rigger, as she had the option of including it in her morning routine because it is 'easier' when living in this flat. This idea of doing something because it is easy in the specific setting reflects the impact that the material and natural affordances of the space can have on one's behavior by evoking an alternative way to live, utilising the affordances given by nature as much as those of an urban residence. This combination of affordances has led Lau to take up winter bathing when he would not have done so before. He says, *'because it's a habit here, I have the chance to just do it. You know, I don't have to think about it. I just do it'*. The setting and design of Urban Rigger has removed a barrier between Lau and the water,

both physically and mentally, to allow a bodily engagement through winter bathing. This leads him to feel more 'energized', while the effects the practice can have are expanded on by Andrea:

'So if you woke up, but you're having a hard time waking up, and you feel groggy, and you need your coffee, I feel like before you do all those things to wake you up, the dip in the water does the best job. Like all of a sudden the coffee is just, you'll drink it after because you want to, not because you need it. [...] It just [winter bathing] wakes me up and I feel more productive when I start doing this. And also I feel warmer in my apartment.'

As demonstrated by Andrea, the design and location of Urban Rigger permits winter bathing to be easily incorporated into everyday life. The sensorial shock of a dip in the water is shown to have an impact on the rest of the day, initially waking her up and stopping her from feeling 'groggy', but also having the more lasting impact of making her more productive and feel 'warmer' in her apartment. While Jones states that the common city senscape generally avoids strong sensory stimuli and tries to flatten out any stimulus that could be too strong (Jones 2012, 655), here we see that Andrea and Lau purposefully integrate this stimulation as a way to enhance their experience of living in the city. Winter bathing is integrated into the everyday routines of many residents, demonstrating a willingness to incorporate strong stimuli in the city. Jones takes the example of commuter

cycling as integrating strong stimuli into city life, and notes that it produces *'a rich, though not necessarily positive, sensescape at the porous boundary between body and world.'* (Ibid.) While winter bathing is another example of strong stimuli being incorporated, what sets it apart from Jones' example is that it is a leisure activity undertaken for personal benefit or enjoyment, and of course develops a direct relationship with water.

The engagement with strong stimulus is enabled by the given affordances that are present at Urban Rigger. It can then be discussed whether the common city sensescape is avoiding strong sensory stimuli, or if the affordances that are present do not encourage strong stimuli practices such as winter bathing. Furthermore, the environment presents affordances at Urban Rigger, by the convenience of engaging with weather, then enables the strong stimuli practice of winter bathing.

'It gave me a really good opportunity [living at UR], because I was so close to it [the water] and can just run back home. Usually take a shower. It's a thing I've always wanted to do before I lived here, but I over exaggerated how horrible it was going to be. But because I started from the summertime, and then you kind of just gradually kept doing it every day. Yeah, it's not that big of a shock.' Andrea

Here, the opportunity of practicing a sensorially demanding activity is fully embedded in the place

and in everyday life. By practicing winter bathing, and being able to do so while living at Urban Rigger as opposed to when she lived in the city, Andrea appropriates the space based on the practice of winter bathing, that is being enabled by these new affordances that is present at Urban Rigger. This appropriation is based on practicing and sensing water in a new way through living at Urban Rigger, which embeds these sensorial elements into her experience of the space. This becomes clear when Andrea was asked about what she would miss the most when moving from Urban rigger, where she answered *'I think how easy it is to access the water. I'm going to miss it.'* The senses that are being stimulated when Andrea interacts with the surrounding environment and engages with winter bathing have developed to form a part of her sense of the place, and her perception of what Urban Rigger is. Furthermore it is noticeable that this sense of space is shared amongst the tenants when Kate describes how *'some people [at Urban Rigger] really like winter swimming. So year round swimming is like a perk for them here.'*

Managing trash is another notable practice illustrated firstly by the material affordances of the housing, which seem to affect the ways in which the tenants encounter garbage and as a result, the practices that develop around the issue. For this reason, it is interesting to see how the visual transparency of the windows elicit feelings of consciousness and responsibility towards the impact of littering the ocean, leading to thoughts about plastic use. The residents can see both the rubbish that is floating in the water and other people behaving responsibly with their trash:

'I got emotionally sad about seeing stuff in the ocean. I was like, maybe I should actually do more about reducing my plastic use. [...]. Also, it's [a] more visual kind of a way, if you see other people doing it. And because we all live around, and we have the big windows, so we see everyone going from place to place. It kind of reminds you that okay, it doesn't feel hopeless. It doesn't feel like I'm the only one doing this. It kind of feels like if we're all doing it it does matter.'

As stated above, by being in constant visual connection with the water, Ditte is more aware of plastic waste as an issue, and believes she should do something about it. Seeing human waste in the ocean, damaging the environment that surrounds her, is clearly affecting her emotionally. As a result, her way to manage her waste has changed and she is more responsive to it. Due to the large windows on the rigger, Ditte has added motivation to change her own practices based on the visual connection of seeing how other residents act. This feeling of not acting alone gives added meaning to the practice, that 'it does matter'.

The fact of seeing litter in the sea every day, in their living environment, makes the residents further aware of the issue of littering. Hearing about this issue or even seeing it once or twice a week is definitely not the same as living with the problem. As Christopher puts it:

'I would never have thrown trash into nature before, but I wouldn't maybe go and actively collect stuff. Whereas here after people have a party outside our home, they don't really collect the trash and so for the people living here, they started collecting trash. Because it kind of sucks living in the trash, but it also just, it's not good for nature and it's a community thing. It's like having beers together and collecting trash.'

While he demonstrates that he would not have thrown trash into the water himself, through living on Urban Rigger he has begun to actively try to help resolve the issue that human activity is causing to the water in the area. As a matter of fact, Christopher and the community of Urban Rigger have integrated this new activity into their lives by meeting for a beer while they collect trash together, therefore routinizing it in a way *'in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood.'* (Reckwitz 2002, cited in Warde 2005, 135). This in a sense leads them to appropriate the space through the action of cleaning their environmental surroundings.

Furthermore, most of the tenants also articulate that the community is an active factor for taking actions on issues such as this one. To illustrate this, some of the residents are used to gathering to collect the litter that they see on the water demonstrating how their personal interests in the issue have led them to a clear development of their relationships as neighbours. Therefore, it is clear that this practice determines the *'social*

relationships and local orders that are part of everyday spatial experiences.' (Kusenbach 2003, 22). For instance, Kate describes the dynamics around collecting litter, and how everyone likes to facilitate the activity:

"a lot of people have kayaks and paddle boards on the riggers here and everyone's kind of cool about letting people borrow their things and stuff. So yeah, we've all kind of been able to do that and a lot of people will just paddleboard and collect trash because there's usually a lot of trash, especially again in the summertime because a) the weather's nice and b) like when Reffen is at full peak, there's garbage everywhere. So people are always out just collecting trash on the paddleboards"

Not only does the design of the place encourage engagement with the water - by having a kayak dock and pool-ladders - people also created new

practices involving both this affordance and their sensibility to the problem of floating trash. The way Kate explains the practice denotes that people are blending a leisure activity with a current situation that affects the environment, and as she mentioned, it's a thing that people do because of the existence of elements that allow them to create a communal relation, e.g. borrowing the kayaks or paddle boards. On top of this, there is a contrast between the Urban Rigger community and visitors to the outdoor food-court Reffen. As garbage increases as visitors come and go, it is the residents who try to maintain their surrounding place in order, caring for the water and the effects of littering in this kind of environment. This shows how through time and physically living on the water, a sense of place that incorporates their living environment has developed to create feelings of responsibility to the water that surrounds them. Therefore, their appropriation of the place involves not only their surroundings, but also the issues included in it, resulting in their awareness of the problem and creative solutions to fix it.



Figure 10. Practices in the water. (Source: Photo taken by Kate)

These two practices are examples of how Urban Rigger dwellers have integrated embedded practices to their everyday life according to the meanings, the affordances and the appropriation of the place. Although places can be contested and understood in many different ways (Massey 2001, 464), in the case of Urban Rigger the interrelation between the residents, the design of the space, and the location encourage practices that residents engage with together as a community. With this in mind, while contestations of place will occur on the riggers, the collective participation in and importance of these practices demonstrate a place embedded with shared meanings associated with this particular place (Cresswell 2015, 14). Furthermore, by engaging with these practices and therefore appropriating the space (e.g. through

paddle boarding), the dwellers are aware of how they are developing a relation with nature and as a result, a sense of responsibility towards it. When Ditte was asked if she felt more connected with nature and more conscious about sustainability after moving into Urban Rigger, she replied, *'yes! more and more for each day, week, month.'* As a result, the practices embedded in the space and performed by the community regarding the direct relation with nature are developing ideals with further conscience of their surrounding environment. Through living at Urban Rigger Ditte has adapted some practices that the place affords and promotes through the community to make her feel she is working towards her ideals in her everyday actions.

Final Conclusions

This analysis aimed to get a better understanding of how people living on water connect and engage with their physical surroundings in their everyday life in cities. Through the case of Urban Rigger Copenhagen we were able to understand that thanks to the specific affordances and sensescape of the place, inhabitants create a unique relationship with the surrounding natural environment.

In the first section of our analysis, we demonstrate the effects of the windows as the most dominant element of spatial affordances at Urban Rigger in connecting residents to nature. Firstly, we argue that as the tenants perform practices like jumping

into the water and fishing through the frame, they appropriate the material affordances of the space in order to experience contact with nature. In this sense, a relationship is being built between the spatial opportunities for practice and the people who are interacting with it. We then argue that the process of appropriation that occurs within the mundane practices and daily routines of the residents leads to them reframing their subjective meaning of place. Considering that the aim of practice and appropriation is again the maintenance of sensorial contact with the sea, the wind and the sky, it allows daily routines to develop and evolve accordingly as they become saturated with meaning.

Secondly we argue that people make a connection to the environment through their senses, which allow them to integrate the weather within their everyday life. The weather, through the sensorial connection, develops the relation of the residents to nature. Furthermore, we made the statement that Urban Rigger has a unique sensescape, in comparison to how Jones describes a more general urban sensescape. Its uniqueness comes from the specific natural and material features creating an unusual sensorial connection between people and environment, through the feeling of the water, the wind and other natural elements. The affordances, the sensescape allowing to make sense of the place while integrating the surrounding environment permits the residents to engage with the place on an active level, and to another extent create a relationship between human and place.

Lastly, we showed that the place is engaging people in specific practices with water. Through the two examples of winter bathing and trash management, the importance that specific elements of design and location have in regards to the creation of relevant practices is clear, generating a direct relation with the natural world. We also point out the importance of community in the development of these practices. The natural and material affordances of the place are therefore integrated in community-led practices, which circle back to reinforce and strengthen the role of said community.

Based on this case study, we argue that through practice, appropriation of natural and material affordances of the space, while under the sensorial

effect of the natural surroundings, the tenants experience what they call '*living in nature*'. This reflects their idea of place, the point of contact between the designed space and the natural surroundings and most importantly the water. This case stresses the importance of practices and sensorial relation with the environment, in order to understand the relation of humans with nature. We also take the stance of saying that this kind of environmental engagement contributes to bonding people with the surrounding space, and thus allows them to develop further their sense of place.

These conclusions allow us to stress the importance of water within the life of urban citizens. We can now complement Uzzel's (1990, 4) finding of water being significant in the way that people perceive and relate to their surrounding landscape. Accordingly, our research indicates that water is not only a static natural element but also an entity with which people can interact. The water, being seen as an active component of life, reintegrates a form of natural life within the city.

In the context of blue urbanism, the case of Urban Rigger stands as an example of housing whose design promotes the interaction between the user and the ocean. However, it is the dynamics that human activity elicits, which forges the relationship with the ocean. The design of Urban Rigger cannot be seen out of the context in which it is used. We therefore state that, in the context of blue urbanism, design needs to take into consideration the importance of accessibility to the ocean, keeping in mind the role of the users as active, sentient beings.

Developing the discussion around the role of water in design and urban planning, it would be interesting to reverse the focus of interest from the technical role of water in design to the people's experience of waterfronts and the way it affects their environmental awareness and engagement.

For municipalities to make decisions according to the ideal of sustainable cities and blue urbanism, further discussions need to be made on the users' experience of water in urban environments and the potential long term effects of living on the water.

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