

# Place attachment to waterscapes in the Hague, the Netherlands

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## ARTICLE INFO

## ABSTRACT

### *Keywords:*

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Urban waterscapes provide opportunities for transportation, agriculture, as well as for sports, relaxation, and play. Place attachment has been studied in association with residential areas in urban contexts. However, the relationship between urban waterfronts and place attachment has not been established. This study evaluates the psychological and social mechanisms of place attachment, and the role of place attachment for urban policymaking. A theoretical framework incorporating 3 theories, namely cognitive, emotional, and behavioral place attachment, is used. Fifteen detailed in situ and online interviews with residents and ex-residents of the Hague constitute the data collected for this research. The transcribed interviews were analyzed by identifying 9 categories corresponding to the types of place attachment. The categories were discussed in relation to the theoretical framework. The findings show that childhood place memories are crucial for intense and long-lasting place attachment to the seafront of the Hague. This is true especially for the ex-residents, who spent their childhood and teenage years in the Hague, and frequently visited the seafront. Moreover, unique memories associated with strong emotions are greatly impacting place attachment. These are first-time events, such as seeing the North Sea for the first time. Accessibility, and the presence of amenities are also relevant for enhancing attachment. Moreover, the current research shows that place attachment is relevant for policymaking as 1) it unravels environmental quality by exposing resident's opinions; 2) increased place attachment is linked to a better individual and communal quality of life as it promotes community involvement; 3) attached individuals are more likely to overcome local problems because they share the same interest in place; 4) place attachment is linked to pro-environmental and nature conservation behaviours as individuals are willing to protect the place.

## Introduction

Water is seen as the core element of a settlement's survival. Historically, civilizations formed alongside riverbanks, making the availability of waterscapes a crucial element in this process (Cengiz, 2013). Cities have been using waterscapes as functional systems, and recently as part of sustainable design strategies to increase the benefits associated with them. Such benefits are flooding prevention by rainwater retention or supporting biodiversity. Waterscapes have also been used for transportation, accommodation,

energy, and aesthetic reasons, thus facilitating economic development and globalization (Hein, 2016). Moreover, since the 1950s, research on urban waterscapes has been focusing on environmental issues, such as water pollution or a lack of potable water (Katko et al., 2010). However, the social, psychological, and community dimensions of waterscapes have been widely ignored. This is visible in the layout of waterscapes within cities, which are often not accessible as swimming areas, and do not provide

suitable walking promenades along the water (Pillen et al., 2017). Factors such as accessibility, versatility, biodiversity, habitats, and aesthetics facilitate physical, mental, and spiritual well-being (Zhang et al., 2021). It is thus imperative to understand the ways in which humans connect to waterscapes.

Civilizations have expressed ways of living, spiritual beliefs, and religious tropes with symbols such as trees, animals, or other natural elements (Brandenburg & Carroll, 1995). Nevertheless, resource planning has traditionally viewed nature's benefits as economic values, excluding the symbolic, spiritual, and intrinsic emotional values that can be attributed to natural environments (Brandenburg & Carroll, 1995). In a similar manner, until recently, waterscapes have been analyzed mainly from a techno-scientific perspective, focusing on economic, biological, and engineering dimensions (Karpouzoglou & Vij, 2017). Conversely, the waterscape perspective originating from political ecology recognizes that natural areas and society cannot be taken as separate objects (ibid.). In the past decade, the interest for studying place attachment to other areas, such as cities, grew (Rising, 2017). Interestingly, place attachment has been researched in relation to long-term residences. It has been hypothesized that a mobile population can shift their attachment loci from long-term, stable residences to more generic environments, with physical features such as waterscapes (ibid.).

An objective of this paper is to understand how people form emotional connections to waterscapes in the city of the Hague. The sea constitutes an important cultural aspect of the Hague, a city which markets itself as "The city, the beach, the Hague" (Den Haag, n.d.). The waterscape focus is motivated by a lack of research on the topic, although natural areas containing water were found to be 4 times more valued than green areas (Dou et al., 2017). This suggests potential for emotional connection to waterscapes in cities. Simultaneously, research that focuses on the mental and spiritual benefits attributed to urban waterscapes may impact urban policies. For instance, the city of Amsterdam

aims at creating more swimmable waterscapes (Amsterdam Gemeente, 2016). Research showing the importance of waterscapes, such as canals in Dutch cities, may inform such policies about areas to which residents form emotional connections to, which are more frequented, taken care of, and used (Moulay et al., 2018). Furthermore, attachment can facilitate social contact, which in turn can be used to address a highly relevant urban issue: social polarization (Gustafson, 2006). Segregated communities and individuals may meet in the same place if they are connected to that area. Opportunities for socializing through place attachment should be explored to create open communities.

To answer the research question "How do people form emotional connections to waterscapes in the Hague?" I will make use of three additional sub-questions. These are 1) What are the psychological and/or social mechanisms behind these connections? 2) How do different communities or individuals connect to distinct waterscapes? 3) What are the implications of urban planning to enable social and emotional connections to waterscapes? The main assumption is that the waterscapes of the Hague constitute thick place, that are rich with meaning and easily identifiable; this in turn makes them suitable for people to connect to.

## Theoretical framework

A place is purely topological unless individuals connect meanings to it (Hashemnezhad et al., 2013). Place attachment refers to the ways in which individuals create connections to physical places (Cole et al., 2021). To understand the complex relationship between individuals and place, three types of place connections are relevant: cognitive, behavioral, and emotional (Altman & Low, 1992). In the unravelling of these meaning-making frameworks, two theories are described: the imageability theory formulated by Lynch (1960), and place attachment theory, with its subsequent branches: place dependence, place affect and place identity (see fig. 1) (Altman & Low, 1992). This constitutes the theoretical framework developed for this research.

Type of place attachment	Theory used
Cognitive	Imageability
Emotional	Place affect, and place identity
Behavioral	Place dependence

**Fig. 1.** Theoretical framework.

### *Cognitive place attachment*

Cognitive place attachment refers to the mechanisms that create place memories (McCunn & Gifford, 2018). These memories are spatial, which enhance orientation, or emotional, which enhance place affect. These processes can be understood through the concept of imageability. In *The Image of the City*, Kevin Lynch (1960) states that environmental quality is determined by imageability. Imageability refers to the process of creating mental image of places (ibid.). Two processes are involved in place cognition: making sense and involvement (Kaplan & Kaplan, 1978). While making sense entails piecing together and navigating an environment, involvement is the process of securing and maintaining interest in a place (Herzog, 1985). Herzog (1985) argues that environments which simultaneously sustain the functions of making sense and involvement are highly preferred as they constitute crucial cognitive processes for evolving humans. Nevertheless, navigation is more efficient when attributes of the physical space hold emotional meaning for the navigator (McCunn & Gifford, 2018). A place easily mapped in one's memory is positively perceived, therefore more frequented (Ford, 1999).

Interactions between individuals, place, as well as the social and cultural settings, promote memory formation (McCunn & Gifford, 2018). This involves a "flow of information from physical places to the cognitive representational apparatus in the brain," which allows individuals to form connections to place (idem, page 209). Spatial imageability is highly relevant in urban contexts because a coherent urban environment, with landmarks, symbols, and nodes promotes sociable behaviors (ibid.). Hence, imageable places are often coupled

with a stronger sense of place attachment (idem, 2021).

Lynch (1960) notes that water-centric cities are more identifiable due to their imageability. Water elements "may be higher-order spatial anchors that provide reference for organizational spatial formation" (De Jonge, 1962, page 270). Waterscapes are memorable spatial features which "surface early during spatial memory recalls because other spatial information must be organized around them" (Rising, 2017, page 75). This signifies the importance of water bodies in memory recollection, which is relevant in the formation of emotional attachment.

### *Emotional place attachment*

Emotional place attachment is comprised of place affect and place identity. First, the concept of place affect encompasses the emotions that individuals attach to specific places: "to experience place is to be affected by place" (Duff, 2010, page 881). To comprehend how affect and place interact, Casey (2001) differentiates between thick and thin places. Thick places constitute environments rich with essence, which "enhance one's sense of meaning and belonging, forging a series of affective and experiential connections in place" (Duff, 2010, page 882). On the other hand, thin places are void of substance, and offer no memorable experiences or emotions (Casey, 2001). Urban waterscapes have the potential to become thick places when designed accordingly. Booth (1983) argues that waterscapes produce alertness and awake moods in people, while Hannebaum (1998) finds that water induces a sense of relaxation. Other studies, such as Sorvig (1991), report that individuals feel gloomy, but also soothing emotions when being around water. Hannebaum (1998) mentions a sense of serenity, and Booth (1983) a sense of tranquility. This showcases how there is no consensus within academia regarding the relationship between waterscapes and place affect.

Second, place identity is facilitated by the physical characteristics of the environment, as well as by the ways in which people perceive and experience places that hold emotional meanings (Korpela et

al., 2001). Place identity may in turn facilitate a sense of place connectedness: “it [place identity] accrues to places that fulfill people’s emotional needs and enable them to develop and maintain their identities” (Kaiser & Fuhrer, 1996, page 314). Certain physical qualities such as distinctiveness and continuity promote place identity formation (Twigger-Ross & Uzzell, 1996). Moreover, a place which contributes to one’s self-esteem, and permits self-reinforcing and self-affirming emotions is preferred (ibid.).

Furthermore, place memory is closely related to place identity. Place memory is determined by two types of memory: individual, and collective. Individual memory refers to a person’s recollection of past events (Green, 2004). As part of individual memory, childhood place memories are crucial in place attachment formation. Morgan’s (2010) place attachment theory considers the developmental processes in the field of Psychology. The author argues that “a pattern of positively affected experiences of place in childhood are generalized into an unconscious internal working model of place which manifests subjectively as a long-term positively affected bond to place known as place attachment” (Morgan, 2010, page 11). Cobb (1977), Cooper (1992), and Pearce (1997) conclude that childhood place experience is important for shaping adult identities. In support of this finding, Hay (1998) studied place attachment over the human life span and found that place attachment grows stronger as individuals age, and that place attachments formed in childhood are stronger than those created in later years.

Collective memory refers to “mental representations of past events that are common to members of a social group” (American Psychological Association, n. d.). Community memories are embedded in the history of place, which impacts the development of place attachment. Collective remembering can be seen as cultural practice or as “doing culture” (Hörning & Reuter, 2004). This ethnographic approach is relevant here as interest in local history is associated with cultural continuity of place (Dobosh & Lewicka, 2015; Sani, Bowe & Herrera,

2008). This implies that being acquainted with place history enhances individuals’ feelings of belonging. In this way, family genealogy and place history are great influences of place attachment (Low, 1992).

#### *Behavioral place attachment*

Place attachment can also be understood as a functional relationship – a place which provides the necessary conditions for achieving specific goals (Williams & Vaske, 2003). Gibson (1979) identifies three types of affordances. Affordances refer to the landscape features which determine the actions that can be taken in the environment (Herzog, 1985). First affordance, locomotion, depends on general environmental features, such as how “finely textured the ground surface is” (idem, page 226). Second, safety, depends “on the extent to which the environment contains configurations that could serve as hiding places” (ibid.). The third affordance, prospect, derives from Appleton (1975), and refers to the ability to see into the distance. This is determined by how spacious an area is (Herzog, 1985). In short, elements such as accessibility and mobility facilitate the achievement of goals in a place, making that place appealing.

Gustafson (2006) accounts mobility as a crucial factor for the facilitation of place attachment. Place qualities such as spaciousness, texture, coherence, complexity, mystery, and identifiability may enhance or hinder mobility and accessibility to waterscapes (Herzog, 1985). Herzog (1985) concludes that (1) individuals prefer clear, clean, or rushing water over muddy or swampy areas; (2) large bodies of water are preferred over lakes and rivers; and (3) “the most preferred waterscapes are high in spaciousness, coherence, but low in texture” (idem, page 238). Interestingly, this seems to go against the assumption that mobility enhancing features are preferred. Low texture indicates an environment that is hard to walk. Large bodies of water, such as the sea offer spaciousness, which seems to be a valuable quality preferred by people (ibid.).

Place dependence can be understood by analyzing two determining factors: place quality and place

expectations (see table 2) (Alrobaee & Al-Kinani, 2019). Place quality refers to “the ability of the place to achieve the objectives of the people [...] and is related to [...] the amenities availability, the availability of open spaces and entertainment, accessibility, diversity, and proximity” (idem, page 2). Place expectations are “the ability of the place to achieve the objectives of the people and aims to study the quality of the place to search for the best places to live” (idem, page 3).

#### *Physical elements that promote place attachment*

The processes of place cognition and place attachment heavily depend on environmental conditions. Place features can enhance or deter these processes. Waterscapes hold unique features, which can enhance place attachment. These are reflectiveness, sound, and biodiversity. First, water has reflective capabilities. Calm water is a mirror that reflects the surrounding landscapes, while the sea with its agitated elements “give water one of its animistic qualities” (Mador, 2008, page 50).

Second, water soundscapes are unique features that promote relaxation. A soundscape is defined as an “acoustic environment as perceived or experienced and/or understood by a person or people, in context” (International Organization for Standardization, 2014). Soundscapes can impact individual behavior but can also alter the social and cultural development of groups during prolonged periods of time (Morgan, 2010). Although literature on the topic of sea soundscape in urban areas is slim, water soundscapes have been identified as relevant elements that need to be preserved in cities (Jia, Ma & Kang, 2020). One reason for this is that water sounds were found to be the most suitable sounds to incorporate for bettering the urban soundscape (Jeon et al., 2010). Water sounds such as fountain sounds can reduce urban traffic noise (Nilsson et al., 2010). Wave sounds can thus serve as a natural sound which contrasts the stressful urban sounds and promote relaxation. Importantly, Thoma et al. (2018) found that water sounds have a positive effect on somatic complaints by reducing stress levels.

Third, waterscapes are rich in flora and fauna. Flora diversity enhances individual’s aesthetic appreciation of an environment (Lindermann-Matthies et al., 2010). Fauna diversity is also appreciated and can provide excitement for the human eye. Humans appreciate fauna diversity, such as birds and butterflies (Yun Hye Hwang, 2020). While there is a lack of research on this issue, the preference for a diverse flora and fauna can be explained psychologically. Species richness increases visual complexity (ibid.). Typically, humans prefer environments with medium to high levels of visual complexity (Leder et al., 2004). Lindermann-Matthies et al. (2010) show that people can recognize and appreciate species richness in an environment.

Moreover, functional dependency can also be enhanced by place attributes. For example, clear and well-marked trails enable the hiking experience in a park (Williams & Vaske, 2003). Other factors such as proximity to one’s home may also influence place dependence. The closer a preferred place is, the more it will be used, and remain in one’s memory (ibid.). These places usually include natural areas, such as open community gardens. However, any place supporting activities which are highly valued by individuals could be the subject of place attachment (ibid.).

## **Method**

### *Participants*

In-depth interviewing with individuals representing a broad population is the main method of data collection used in this research. Including people from different races, ethnicities, genders, and ideological backgrounds ensures generalizability. This is relevant as research findings need to be representative of the whole population. To ensure a broad population, multiple methods of interviewing were used. First, in-depth in situ interviews were done with random selection. Two interviews were done in stormy and windy weather, and three interviews were done on sunny, warm weather. This ensures that the responses are similar in distinct weather conditions. The participants were selected from the pre-determined locations, which are described

in the next section. The participants were approached by the researcher and the criterion for inclusion implies that the participants can communicate in English, and that they are, or were at some point in their life, residents of the Hague.

Second, interviews were done online with two previous residents of the Hague who relocated to the United States. These interviews contained the same questions but took place online. Third, the interview questions were shared in online survey format with various members of beach clubs and surf groups in the Hague. Thirteen residents, and 2 ex-residents participated. In figure 2, the demographic factors of all 15 participants are presented.

Demographic factors	Participants	Frequency	Percentage %
Gender	Male	5	33,33%
	Female	10	66,66%
	Other	-	
Age	15-24	10	66,66%
	25-39	3	20%
	40 or older	2	13,33%
Residence	Currently lives in the Hague	13	86,66%
	Lived in the Hague	2	13,33%
Years lived in the Hague	Less than a year	1	6,66%
	1-3 years	5	33,33%
	4-10 years	5	33,33%
	More than 10 years	2	13,33%

**Fig. 2.** Interview participants detailed.

As the goal of this research is to understand place attachment to waterscapes, specific questions relating place affect were the focus of the interview (see appendix 2 for the interview guide). Generic questions on the residence and use of waterscapes were included in the discussions. Moreover, articles studying place attachment to natural areas and imageability theories constitute the theoretical foundation of this research, as well as the basis for the interview guide. The interview questions are relatively open, which ensures that participants dictate their own answer length and

detail depth. Typical questions for this research include:

- “How often would you say you feel the need to go outdoors?”
- “What would be your preferred place when needing to take a break or a walk?”
- “If you had to choose, which seafront would you like go to and why?”
- “Do you go to the seaside for a specific reason (swim, run, walk)?”
- “Does the seafront reflect any ideas or memories for you?”
- “How do you think the identity of the Hague would be affected if the city had no seafront?”

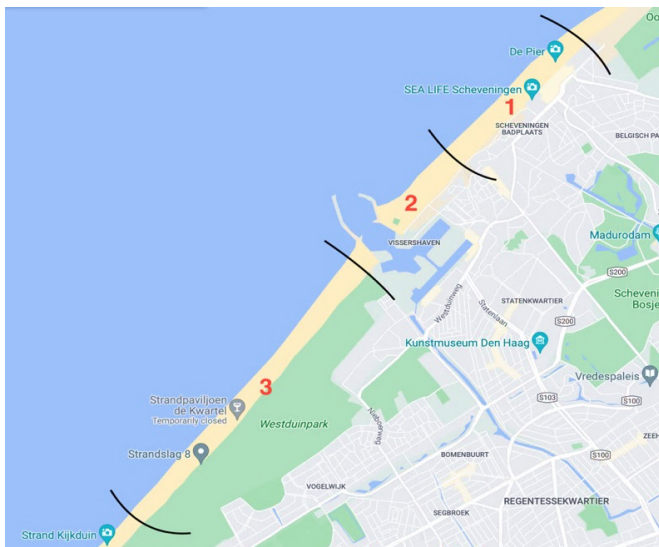
All in situ and online interviews were recorded, after which they were transcribed. Participants were asked to sign a consent form before proceeding with the interview. The transcription process did not involve any software.

### *Location*

The focus of this paper is on the seafront of the Hague. Three locations have been selected for this research as they are distinct in characteristics. The first location is roughly defined by Oostduinpark in the north and Haartbeach in the south. This beachfront is very popular, and it can be reached directly by tram from the city center. The main attractions are the Pier, the beach restaurants, some of which are open all year around, and the aquarium. This area is heavily touristed and is one of the main attractions of the Hague. It has some of the widest beachfronts of the city, which in good weather prompts people to engage in sports such as volleyball or badminton. During the summer, the beach bars and restaurants are a popular attraction for inhabitants and tourists alike.

The second location is Duindorp with Visserhaven and the popular surfing beach located north of the port. This area is more industrial and functional. It includes, however, watersports locations such as Haartbeach, as well as surf shops and restaurants. This differs from the Scheveningen beach front as it is not as touristed, and most of its visitors are the inhabitants living in the neighboring districts. This area is well known for surfing, with Haartbeach offering equipment, as well as surfing lessons.

There are two piers in the port, which provide a great view of the sea while taking a stroll.



**Fig. 3.** Interview locations.

The third location is situated between the port in the north, and Strand Kijkduin in the south. The natural reservation of Westduinpark borders the seafront in the west. This seafront is unique as it offers more privacy. There are few beach bars open across the beach, and the only relatively crowded area is Strand Kijkduin. The area is relatively quiet for most of the year, except for when the weather is pleasant. South of Strand Kijkduin is an area known for kitesurfing. Westduinpark is intriguing as it offers distinct landscapes: dunes, forests, sandy areas with grass. The park is equipped with multiple bicycle paths that stretch across, but also includes pedestrian routes, and horse routes. While strolling through the park, one might also encounter animals such as the Scottish cow, rabbits, and different species of birds. Overall, this area is unique in its nature, and is generally more quiet and remote compared to the beachfronts of Scheveningen or Duindorp.

### *Analysis*

The interview data is analyzed in relation to relevant literature on place attachment and imageability (see theoretical framework). To link the collected data to the theoretical framework, discourse analysis is used, as the interview parts are only discussed in relation to existing literature. This implies analyzing the language used to gather meaningful insights. For instance, understanding

what participants believe to be a place suitable for place attachment can be deduced from the interviews. How often they frequent the beachfront, which type of beaches they prefer, with how many people they spend their time at the seafront are all indicators of place attachment. For data reduction, latent content analysis is used (Field & Morse, 1985). The transcribed interview data was broken down into 9 categories. This makes the rich interview data manageable. This form of content analysis eases the data analysis process as each category is linked with the theoretical framework.

### *Concerns*

The validity of this research is discussed shortly. Internal validity – how the data answers the research questions without bias - is not compromised as data was collected in distinct settings ensuring a broad data set (Sandelowski, 1986). For instance, in situ interviews were performed both in stormy weather as well as in sunny weather to see if participants' answers vary. Moreover, interviews were done with both residents and ex-residents of the Hague. Diverse opinions were gathered in varied settings, which increases the validity of the research. However, for future research it is relevant to include a wider population sample, as it could reduce any bias relating validity.

External validity refers to the representativeness of participants and generalizability of findings (ibid.). As the current research is small in scope, the data collected in 15 interviews has proven enough to represent a relatively diverse population (see table 3). However, the participants are mainly women, and of ages between 15 and 24. While this is not problematic as other groups have been represented (2 participants with the ages between 40-63 for instance), this urges future studies to do in-depth analysis on place attachment for specific age groups. Place attachment may vary with demographics such as age and gender. This study aims at understanding place attachment for all age groups.

In-depth interviewing is a suitable method for the same reason: gathering diverse and large amounts of data in a relatively short amount of time. It is however relevant for future research to provide more diverse populations by including larger numbers of participants. For example, this can be done by using more interviewing locations.

Furthermore, this study ensure reliability for multiple reasons. First, the interview questions were created after careful consideration of previous studies on place attachment, containing questions on emotions and usage of place. This ensures relevant answers which relate directly to the research question. Second, the in situ and online interviews were recorded, and transcribed in digital files, which may also enhance reliability. Possible ethical concerns of the study relate to the interviewing process. Recording, transcribing, and analyzing the interview data can sometimes be problematic. However, the current study minimizes the ethical risks by asking participants to read and sign a consent form before the interview process begins.

## Results

The theoretical framework of the current study describes the cognitive, emotional, and behavioural mechanisms of place attachment. The interviews conducted for this research reveal the physical, social, and cultural elements that are noticeable and memorable for the participants. After the interview analysis, 9 main categories were identified. These categories correspond to the cognitive, emotional, and behavioral attachment mechanisms described in the theoretical framework. In figure 4, the relationship between these categories and the theoretical framework is visualized.

### *Making sense*

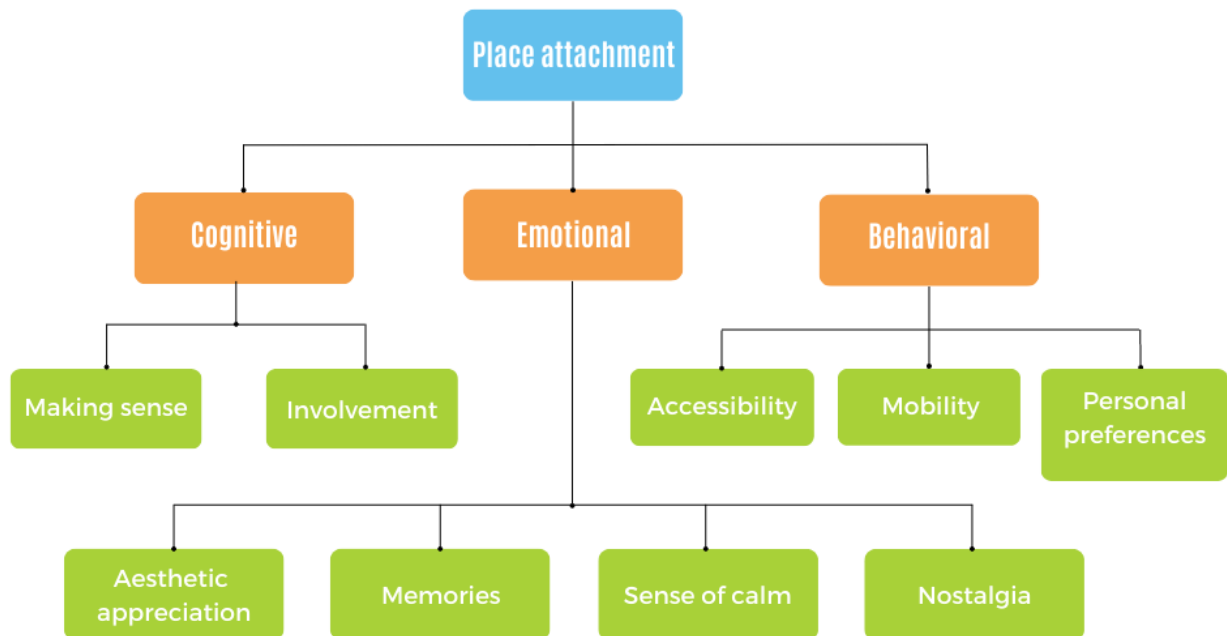
This category refers to how the participants cognitively perceive place. The way the place is physically constructed impacts how one comprehends it, and consequently, one's feelings about it. Landmarks, events, concepts, and individual cognition patterns are major influencers of it.

Respondent A mentions: "there are way too many buildings around it [...] obstructing the actual beauty of the sea." Similarly, Respondent B says: "[...] it's not very pretty, but you know I go for the sea and [...] I can separate it in my head like the ugly part and what I get out of seeing the North Sea." It seems that individuals find nature on nature landscapes such as the sea and the sand or the sand and the dunes easy to understand and more desirable. Landscapes which include a juxtaposition of natural areas (sand, dunes, vegetation, water) and technical, man-made areas such as the port or the pier are less appreciated.

This can be explained by a preference of natural areas which are perceived as beautiful as opposed to buildings, shops and other built contraptions which distract the viewer from the natural wonder. This confirms existing literature, such as Beute & de Kort (2013), Kaplan & Kaplan (1989), or van den Berg (2003), which found that individuals prefer natural environments over built environments.

The initial place cognition is imperative for future perceptions of place (Eilam, 2014). A positive cognition experience or high imageability can facilitate place attachment as individuals are more prone to re-visit the place and associate positive emotions with it. Individuals use buildings, statues, surfaces, textures, and other physical features to create their own spatial representation of the seaside (ibid.). This representation is revisited and re-interpreted with every visit or event that is linked to the place (ibid.). Since place cognition is influenced by personal preferences, it seems that respondents would prefer if the natural element (the sea and the beach in this case) constituted the main focal point of the landscape. While respondent B can still enjoy the crowded environment, respondent A mentions a preference for a more natural beachfront such as Westduinpark.





**Fig. 4.** Categories derived from interviews and theoretical framework.

*Involvement*

Involvement refers to maintaining interest in a place. Prolonged involvement facilitates place attachment as individuals become acquainted and invested in a place that satisfies their needs. This in turn incites one to visit the place more frequently. Involvement is identified here by the number of visits to the seaside, the activities participants undergo in situ, and being directly involved in activities that support the place such as picking up trash.

First, the participants of this study were asked to state the number of times they feel the need to go outdoors. Respondents go outdoors at least once a day, with only one exception (see fig. 5). Participants were also asked where they prefer to spend their time outdoors. A preference for the seafronts of the Hague was mentioned by individuals who live in proximity to the seafronts, and by individuals who prefer the seafront over other natural areas such as parks or forests (see fig. 6). Excluding the 2 ex-residents of the Hague,

38% of the respondents live in proximity of the seafront.<sup>1</sup> This is in line with fig. 6: 40% of the respondents prefer the seafront. The 62% of the respondents who do not live close to the seaside choose parks or forests depending on their preference and the proximity to their home.

In figures 7 and 8, monthly visits to the seaside are presented. The number of monthly visits changes in summer and winter. 23% of the respondents do not go to the seaside in wintertime, while in summertime all respondents visit the seafront at least once a month. A decrease in number of visitations can be seen in wintertime. Interestingly, the same percentage of respondents visit the seaside more than 10 times a month in summer and wintertime: 31%. This shows that connected individuals frequent the beach regardless of weather conditions.

Second, the activities individuals undergo in situ can indicate attachment. Respondents who go outdoors more than 3 times a day reported that it

<sup>1</sup> Proximity to the seaside is defined as living in a neighborhood that borders the seafront. One example is Oud Scheveningen.

is because of their pets or other obligations. These obligations include the need for personal space, taking a break and relaxing in nature. Choosing the beachfront as their favorite spot to unwind, implies that individuals feel safe and are emotionally linked to the place. As Ford (1999) and McCunn & Gifford (2018) point out, places that hold emotional meaning are more easily mapped into one's brain. In turn, these places become associated with positive memories, making them more favorable, and more frequented (Ford, 1999).

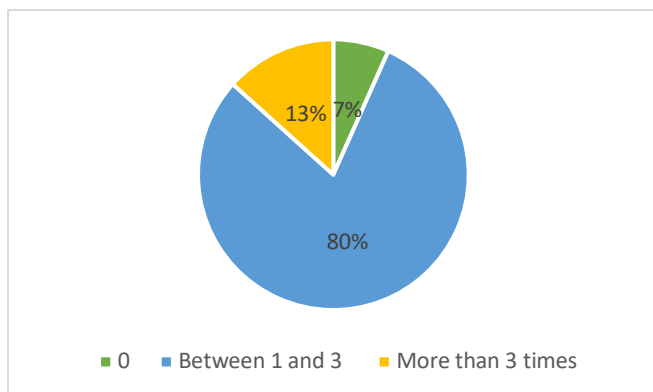


Fig. 5. Need to go outdoor per day.

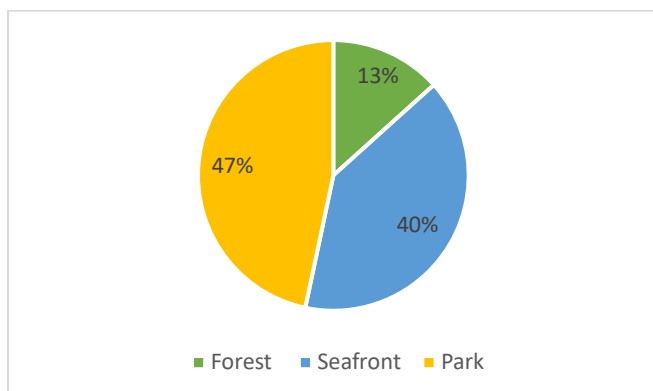


Fig. 6. Preference for natural area in the Hague.

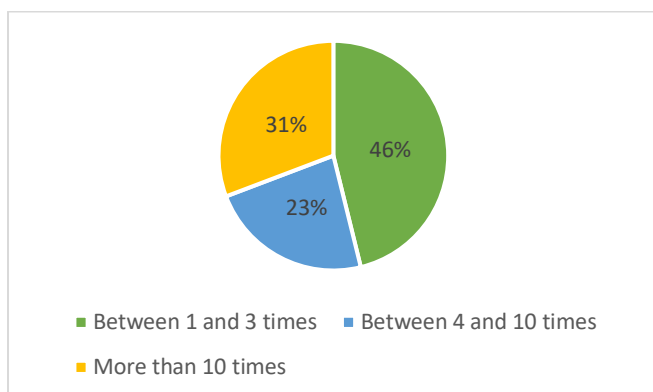


Fig. 7. Monthly visits to the seafront in summer.

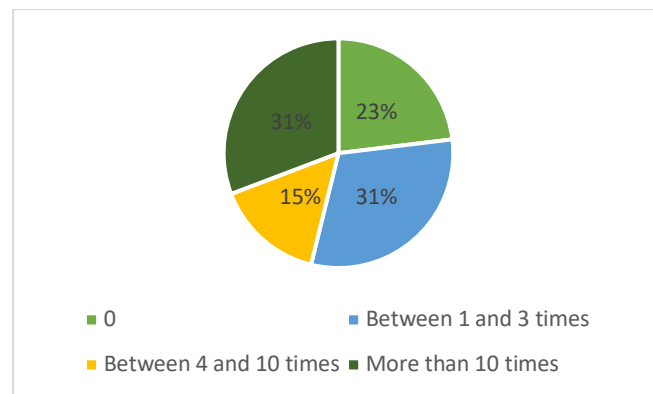


Fig. 8. Monthly visits to the seafront in winter.

Lastly, interest in the condition of the beachfront may point to place attachment. The participants walking the beach with dogs did not litter, and some even picked up litter from the sand. This is in line with literature on place attachment which found that “the stronger people’s emotional bonds with places, the more likely they are to support conservation [...] and the more likely they are to hold negative attitudes towards the development that introduce environmental risks to the area (Stefaniak et al., 2017). Simultaneously, place attachment is linked to pro-environmental behavior (Buta et al., 2014).

#### *Aesthetic appreciation*

Certain environmental features may promote place attachment through their beauty and uniqueness. The elements analyzed in this study are the sun and sunsets, water sounds, and the fauna and flora of the waterscapes.

First, the sun and the sunset were reported. Respondent F said “[...] in Holland there’s not so much sunshine and so usually when the weather is nice, we try to get out.” The same respondent mentions that image of the sun reflecting in the sea induces certain feelings: “[...] if I feel very, very sad then it helps to be here. If I’m really happy it helps also, and I really love the sunsets the most.” Participant A mentions about Westduinpark that “the sunsets in the park are spectacular.” The reflective quality of water in combination with the sun increases the visual complexity of the scene and create a visually appealing image (Leder et al., 2004). Respondents often mention a preference for watching the sea move and reflect the sun. This image can promote feelings of ease and

relaxation, which can in turn promote place attachment. Participant F, who grew up in the countryside, mentions that city life can become hectic, and so “seeing the sunset is really sort of necessary thing for me” as it relaxes her, it connects her with nature.

Second, the sound of the waves was mentioned as an element that is unique to the seafront. Respondent B says: “here you hear the nature, the sound of the waves, it’s really calming,” while respondent F states that “sounds of nature are really important for me,” as they ease the participant into a calm disposition. The city can often be loud and chaotic, and the waterscape can provide a relaxing auditory experience. Water in motion produces sounds that have a direct impact on cortisol levels in humans, and thus promotes stress reduction (Thoma et al., 2018).

Third, natural elements such as the sand itself, the water, the dunes, the vegetation, and the animals were also mentioned by the participants. For instance, respondent G states that the park provides “[...] the opportunity to meet along the way [...] rabbits and Scottish cows.” It seems that respondents are appreciative of diverse fauna and flora present at the beach. Participant A mentions that: “the biodiversity of this seafront is fantastic, and biking through the park whilst listening to the birds is something I’ve never imagined I’d enjoy this much.” An abundance of flora and fauna can increase the visual complexity of an environment. Complex visual places are preferred by individuals (Lindermann-Matthies et al., 2010).

### *Memories*

Memories are fundamental mechanisms in the creation of place attachment. The way one remembers an event impacts one’s ideas, emotions, and perceptions of that event. Especially relevant are childhood memories as they shape adult identities and facilitate long-lasting emotional connections to place.

Respondents were quick to mention memories related to the seaside. Childhood place memories are mentioned by almost all participants. Respondent B, who grew up in the Hague and

relocated later in life recalls: “when we were young like kids, my parents would take me of course but [...] we would go to Monster because it wasn’t as busy.” Memories from teenage years were also mentioned: “[...] being a child and going with my grandparents and my mom to first time surfing there with cousins to you know sort of like pubescent you know worries that everybody has at the beach about their bodies like oh my god I’m getting chest hair and like oh my god am I like fit enough to be at the beach you know?” (Respondent C).

Both childhood and teenage place memories facilitate the creation of adult place attachment (Cobb, 1977; Cooper, 1992; Pearce, 1997). Memories impact attachment by acting as a link between people and events or concepts that took place in situ (Ratcliffe & Korpela, 2016). These impactful memories of going to the beach for the first time as a child and the embarrassment felt as a teenager relating the seafront and its norms aid place attachment. Crucial here are also first-time experiences such as seeing the beach for the first time or as respondent F remembers “when I just broke up with my ex-boyfriend, I was a lot here.” Moreover, pleasant experiences may also facilitate long-lasting place attachment. For instance, respondent G remembers “picnicks at the beach [...] with my roommates and neighbours” as a positive time spent by the sea.

Regarding collective memory and the history of place, participant E mentions the anti-culture in Duindorp: “has a very bad reputation [...] because the people there feel as outcasts in society.” Similarly, respondent M characterizes this seafront as “just sand and riots.” Remembrance of past places and landmarks were mentioned by the respondents of this study. Respondent E remembers a wooden lighthouse and describes how he was present when it was removed to make way for an apartment building. The same respondent talks with nostalgia about a candy bar that used to sit on the beach of Kijkduin. As a child, he remembers the owner – who recently passed away – gifting him candy. These memories and no longer existing places remain in people’s memory, and impact place attachment.

### *Relaxation and a sense of calm.*

Urban centers can be chaotic at times. Residents often feel the need to escape this chaos by spending time in nature. Urban green and blue areas are crucial for this reason. Places that promote relaxation are valued by respondents of this study.

One participant mentions his reason for going outside: “[...] so I can breathe fresh air after spending too long indoors.” Similarly, another participant says: “to take a break for fresh air.” In this sense, the beach, and other natural areas in the Hague provide a place where individuals can unwind and relax after a day at work or inside of their house. As a participant puts it: “[...] I feel like there’s something very refreshing about feeling a bit more connected to nature I feel like if you sit inside every day, you might get a bit more depressed, and there’s just something about fresh air and going on a walk, or just being outside that’s really freeing and really grounding as well.”

Research on the effects of water bodies on the human psyche agrees that water has a soothing effect (Hannebaum, 1998). Respondents of this study often say that the beach is a relaxing place because of certain physical qualities: the sun, especially at sunset, the waves and their sound, the salty smell, the wind, the sand, the dunes, the vegetation, or the birds. Interestingly, participant C said: “There’s a Dutch term for it which you may or may not have encountered called ‘uitwaaien’ which is like literally translated I guess it would mean like to blow out yourself [...] you’re feeling a little or like you got a lot on your mind and you’re feeling a little sad then you go and you uitwaaien which is specifically this like let the wind blow it out like blow the stress out, the emotions out [...] I would go to feel more calm, when it’s so windy and stuff just like hitting you.”

### *Nostalgia*

Longing for a place promotes feelings of attachment by reminding individuals of what it used to be. Nostalgia here refers to the positive memories individuals have in association to the

seafront or other places they long for and the beach reminds them of.

Two respondents spent their childhood and teenage years in the Hague, after which they relocated to the United States. They both mention a longing for the place they spend their early years in. Participant F states: “I feel very attached to the place, and I feel emotional towards it and I feel happy when I’m there and sad when I have to leave again, yeah I find it very calming to be there, it makes me feel like there’s always something so much bigger out there than my issues at the time.” The respondent mentioned she goes to the seaside every day when she comes back to the Hague to revisit those beautiful memories of her past and of her and her children.

Respondent A, who recently moved to the Hague, mentions “Perhaps most importantly, it’s the seafront that reminds me the most of home, which I seem to always be looking for everywhere I go.” Home here represents a familiar, comfortable place that binds nature and peace for the respondent. These feelings of nostalgia, sadness, but also remembrance of a place far away influence place attachment in a positive way by creating a cognitive link between the respondent’s idea of home and the beachfront. Referring to the Scheveningen seafront as home, respondent B mentions “I think a sense of homesick [...] or longing to smell that, to feel it, to see it, you know there’s always this longing for that area I think particularly when I’m here (North Carolina) you know and then when I’m there I go as often as I can just to you know just to see the sunset.”

Similar to the cognitive processes of memory formation, nostalgia impacts one’s emotions by creating a mental association between memories, affect, and place (McCunn & Gifford, 2018). For these people, the sea constitutes a part of their memories, a part they carry everywhere they go. It even becomes a part of their personas: (the sea is) “a reminder of my dislocation, but also of the ability to find a place to belong and of belonging anywhere in the world” (respondent A).

### *Accessibility*

Accessibility is an important aspect of the functional relationship between humans and place. An accessible place facilitates the achievement of goals, which in turn promotes place attachment. Accessibility is understood here as the presence of amenities, including parking, biking paths, walking paths or restaurants.

Literature on the topic, such as Herzog (1985) or Gustafson (2006), accounts accessibility as a decisive element in the formation of place attachment. Interestingly, while respondent E mentioned a preference for a seaside with direct accessible by car, when asked if they would still enjoy the seafront if the car amenities would be removed, they clearly stated that yes, they would frequent the same beach as it is their favorite.

While some features (parking lots, accessibility by car or by bike, bars, sport centers etc.) can make a place more favorable, it seems that accessibility heavily depends on the objectives individuals want to attain in place. Participants mention Duindorp and Kijkduin as beachfronts with sport amenities. For instance, participant F says: “[...] *there behind Kijkduin it’s more for kitesurfing and really for sports, and for people who walk there because it’s easier to park with the car.*”

For some respondents, amenities are not very important in deciding which seafront to go to as they are flexible, as respondent A states: “*Planning ahead is never something I do, and depends on the opportunities and other external factors, a trip to the seaside for purely recreational reasons can turn into a short swim or biking around.*” When the purpose of the visit is recreational, proximity to home, and privacy are mentioned as deciding factors for choosing a seafront location. Respondents who live in Scheveningen and Duindorp mention frequenting those seafronts because they are a short distance from their house. Westduinpark is more preferred by the respondents as seen in fig. 9 for multiple reasons. Respondent F prefers this seafront because it “is not really known by tourists,” and is less crowded. Other respondents mention a proximity to their households. Another relevant reason includes this seafront being their favorite:

“This one is my favorite, every day I come here” (respondent F).

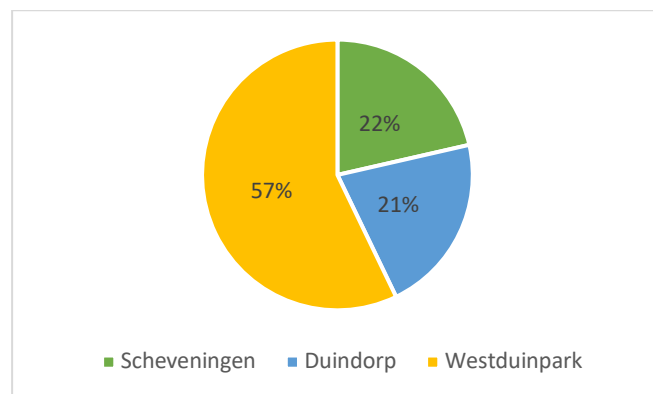


Fig. 9. Preference for the Hague seafronts.

### Mobility

Mobility here refers to both the willingness to move, but also to the environmental features which facilitate movement. Moving in an environment is relevant for place attachment as it can impact self-efficacy and expectations regarding a place (Alrobaee & Al-Kinani, 2019). Walking the seafront, and dog-walking are identified here as mobility issues.

When the interviewees were asked why they feel the need to go outside, a majority reported a need to move. Multiple reasons for moving outdoors were mentioned. There is the need to be active for health reasons. Most participants acknowledge walking outside as being a healthy activity, both physically and mentally. Participants who reported a preference for the seaside as opposed to green areas in the city would travel to their preferred seafront even if that takes 30 minutes by car or bike. One participant drives to Kijkduin every day to walk the seafront and does so because of his health issues. He acknowledges the importance of physical activity and prefers to do it at the beach because “*I can clear my head [...] due to the storm and the waves.*” Another participant goes to the seaside to escape the everyday stillness: “[...] *and just get some walking because otherwise I feel like I’m stuck in my house or at school all day and I don’t really move, and I think it’s really important to move your body.*”

Dog walking has been identified as a relevant urban activity (Arnberger et al., 2022). Many

respondents of this study mention their reason for going to the seaside as being dog walking: *"Yeah, walk my dog, that's the main reason, sometimes swim, to empty my mind, to forget the whole day if I have a really busy day at work, it's really helpful"* (respondent F). Scheveningen strand does not allow individuals to walk their dogs on the beach, while in Westduinpark it is permitted. During the interviews, residents of the city mention their familiarity with this rule, but some, such as respondent D, walk their dogs during the evening or early morning to avoid crowded areas. Arnberger et al. (2022) found that "dog walkers are a group of visitors who have an extremely high visit frequency [...] are likely to develop a special bond with these places subsequently. In line with this finding, participant K states *"I love being outdoors in nature and walk with my dogs."*

Being present and moving in nature has been shown to improve mental health and wellbeing (Birch et al., 2020; Shanahan et al., 2015; Brown & Grant, 2005). The respondents of this study seem to agree with the literature on nature promoting health. Another reason for spending time at the seaside is to participate in certain activities, such as biking, running, swimming, or surfing. For example, participant L mentions they go skating to and from the beach: *"I like to be active and to skeeler over the boulevard."*

#### *Participants' background*

This category contains the participants' personal preferences and previous experiences. Place attachment is a heavily subjective experience, and it can develop differently for distinct individuals. Personal identities made up of demographics, socio-economic factors, ideas, and concepts impact place attachment formation.

For instance, based on the participants ideas and goals regarding an activity, their preference for a place varies. Some participants prefer walking in the third location, Westduinpark, or even further away from the city in Kijkduin, as they prefer the quietness of the area compared to other seafronts such as Scheveningen or Duindorp. Participant F mentions that this specific beachfront is spacious and: *"It's also nice because there are sometimes a*

*lot of people, but still, you have your privacy."* This seems to be in line with Herzog (1985) who found that spaciousness is a place quality preferred by his respondents. Similarly, respondent A puts it *"[...] the quietness, and not in terms of sound, but in terms of detachment from humanity [...] are ideal for me."*

Again, place attachment here can be described in accordance with what place qualities individuals value. When asked how the Hague would change if it there was no beach, participants were quick to say that the seafront constitutes one of the main attractions of the Hague: *"[...] the beach I feel like it's so embedded as part of the Hague that I can't really imagine like the city without it because it's just such, it's a staple"* (respondent D). Similarly, respondent A states that: *"without its beach, the Hague would be, in my opinion, a pretty unremarkable and dull place, save for a few areas of the city."*

While some people think *"the beach is such a bonus to the Hague [...] the dunes, and the sea, the North Sea which I think is a very unique feature,"* as respondent B says, others prefer green areas in the city. For instance, the forest provides an unequalled sense of mystery for one participant: *"I think I opt for parks or maybe like a forest, I'm really glad that I live here at the beach, and I come here frequently or regularly but it's often windy and the weather is not so nice, and I don't know there's something about being in a forest with trees."* Ohta (2001) describes participants' hobbies involving natural areas as being highly significant influencers in the cognition of natural places. Hobbies, personal preferences, memories of past activities pursued in a specific place all contribute to place attachment.

## Discussion

### *Psychological and social mechanisms of place attachment*

Through the qualitative interviews conducted in the current research, psychological and social mechanisms of place attachment were clarified. Direct factors such as cognitive processes, place affect, place identity and place dependence are described. Unraveling the cognition of place was

operationalized using imageability (Lynch, 1960). Making sense and navigating an environment concerns cognitive processes that may regulate the affective system. A positive place cognition experience promotes involvement, and prolonged involvement leads to higher place attachment levels.

Place affect and place identity refer to the emotional aspect of place attachment and are used in the present study to understand psychological and social attachment mechanisms. Place affect and place identity are inter-related and include the following processes: memory-formation, emotions, and prolonged interest in place. Especially powerful is the role of memories, including childhood place memories and collective memories, in the formation of emotional place connections. Existing literature encourages the role of memory in place attachment formation. Autobiographic memories are strongly connected with the affective system (Baddeley, 1992). Remembering invokes emotions, and likewise, emotions shape memories (Barclay, 1986). Place, memories, and feelings become intertwined and often, remembering place triggers recollecting the feelings experienced within a place (Marcus, 1992). During the development of cognitive processes, childhood place memories are stored in an internal working model of place, which fundamentally shapes adult identities (Morgan, 2010). This includes place preferences, expectations, goals, as well as the level of emotional connection to place. Similarly, collective memories are essential in accomplishing place attachment as they contribute to a sense of pride and belonging to one's community. This is especially true for individuals who reside in the targeted place, and who identify with the cultural and social norms of the place.

Place dependence has been operationalized by looking at place accessibility, mobility, and personal preferences. Accessibility and mobility relate to the physical aspects of the waterscapes, while personal preferences refer to individual goals and expectations relating to a place. Depending on the goals and individual wants to achieve, accessibility and mobility can be decisive

factors. For instance, for a respondent who wants to do sports at the beach, the choice of seafronts will be Duindorp of Kijkduin as only these places are equipped with sport amenities. Similarly, participant F who values privacy prefers a quieter seafront and travels 30 or more minutes to Kijkduin instead of visiting a closer seafront. Other individuals prefer the Scheveningen seafront as they value accessibility and proximity to their home.

Furthermore, as Manzo (2005, page 70) states, "one grows attached to settings where memorable or important events occurred." Individuals are likely to connect to a place if memories related to strong or unique emotions occur in that place. First time events, unique circumstance, or cultural events contribute to emotional attachment formation. Respondents mention their first time at the beach, a party they attended or sharing a romantic moment with a partner by the sea. These events impact both memory and affective systems. Thus, place attachment may be created faster and with greater intensity than in duller places.

Certain indirect factors may also impact place attachment. For instance, an abundance of targeted areas implies more emotional and social importance given to the area by its residents. This is true for cities located near waterscapes, where residents deeply connect to the environment as it is part of their social, recreational, and cultural lives (Coleman et al., 2015). The frequency and duration of one's visit may also shape attachment. For example, the longer one has been going to a certain place, the more connected he/she will feel to that location: "place attachment is rarely attained instantly; residents need to spend time in a place." (Hay, 1998, page 9). This is also the case of the Hague, as respondents who lived in the Hague for more than 5 years and visited the seafront reported a high place attachment.

Such factors can hinder the reliability of place attachment research. The current research minimizes potential impacts by incorporating a variety of interviewing methods. Residents and ex-residents of the Hague were interviewed through

random selection, and through snowballing. Interviews in situ were done in good and stormy weather to observe whether respondents' answers are affected. Moreover, diverse interview data was collected by including both in situ and online interviewing samples. Broader populations can be reached in this way.

Nevertheless, consideration should be given to socio-economic mechanisms which influence place attachment. Most importantly, a medium to high income has been associated with better living environments, such as neighborhoods and adjacent amenities: parks or waterfronts (Bricker et al., 2016). Generally, wealthier, more educated, and predominantly white neighborhoods receive more attention, funding, and hold a higher quality of life than less advantaged areas (Diener & Diener, 1995). As this research does not account for the implications of such variables, careful consideration should be given in future studies.

Although this research is limited in scope, containing only 15 interviews, the data collected is crucial for informing urban planning and policy making. For the time allocated and the novelty of the research, 15 in depth interviews was proven to generate enough data to be analyzed in detail. Similarly, Ohta (2001) makes use of 16 in-depth interview to generate a crucial study relating the aesthetic cognition of landscapes. However, a study with a wider population sample would have led to more generalizable findings. For instance, Ujang (2012) efficiently uses surveying and interviewing to gather more reliable data from a total of 342 individuals.

#### *Implications for further research*

Qualitative studies regarding place attachment on urban areas remain limited. Research on place attachment in environmental psychology, and geography is often based on surveys and existing databases. Qualitative research with residents is imperative for understanding place attachment from a sociological perspective. Moreover, place attachment to waterscapes, as well as waterscape features that promote attachment are topics with little research connected to them. This paper

reveals such literature gaps and urges future research to explore them.

A first area to probe relates to the physical features of urban waterscapes that impact place attachment. Alrobaee & Al-Kinani (2019) analyze the physical environment and its role in promoting place dependence. However, research exemplifying waterscapes in cities is narrow. Secondly, cultural influences are not analyzed in the current paper in relation to their impact for place attachment. Li & Chan (2018) detail place attachment in the case of multiple generations of Chinese diaspora. However, the urban context is missing from this formulation. Future research should focus on place attachment and cultural factors in urban areas.

Moreover, as "the importance of biodiversity for the aesthetic value of ecosystems is not known" (Lindemann-Matthies et al., 2010, page 196), it is fundamental that future studies are conducted on the topic. As theorized in the current paper, a visually appealing environment is crucial for place attachment formation. Biodiversity creates visually complex sceneries, which are preferred by humans over dull landscapes (Ohta, 2009). This implies that natural environments have potential for aesthetic appreciation and attachment.

#### *Implications for urban policy*

This research showcases the preferences residents have regarding the seafront of the Hague. While some of the participants are interested in the amenities the seafront provides, such as restaurants, sport centers, bike or walking paths, others are attracted by the nature, and the calmness of the sea. In the Hague, it seems that the balance between busy, activity-oriented seafronts of Scheveningen and Duindorp, and the calm, nature-oriented Westduinpark is appreciated by the inhabitants of the city as they can choose a seafront based on their goals.

It is relevant for policy makers to understand how individuals perceive place. This is especially true for urban areas that receive little empirical and theoretical attention, such as urban waterscapes. There are multiple reasons for this. First, place



attachment research can inform planners, architects, and policy makers on the quality of the built environment. For instance, the Scheveningen seafront was described by most respondents as 'ugly,' 'touristy,' and 'too busy.' Future urban redevelopment projects could focus on tackling these issues by enlarging the promenade or promoting other seafronts of the Hague. As demonstrated in this research, visual quality is important for place attachment, for both residents and tourists. While preferences for place quality vary for everyone, it is relevant for policy makers and municipalities to understand what areas are favored by residents and tourists alike. City branding and tourism can be enhanced with the help of such understandings. For instance, seating opportunities, availability of parking, number of sport centers and restaurants are crucial elements which influence one's perception of place.

Second, an increased place attachment is linked to a better individual and communal quality of life. As Romero et al. (2016, page 121) state, "a sustainable development needs to establish new links between human senses, human perception and design in order to create adequate environments for everyday life." How residents perceive and feel in a place greatly impacts their actions. For instance, place attachment is directly and indirectly related to an increased involvement in the social life of a place. Moreover, emotional connectedness to a place is linked to civic engagement (Lewicka, 2005). Urban centers are concerned with social issues, such as segregation, polarization, crime, loneliness, or a decreased quality of life. Promoting community participation through place attachment may combat small-scale social segregation and polarization. At the individual level, high levels of place attachment can impact loneliness levels.

Third, emotional connection to place has been associated with willingness to overcome local problems (Manzo & Perkins, 2006). Brown, Perkins & Brown (2003) indicate the importance of these attitudes for the integrity and well-being of neighborhoods, as they prompt inhabitants to participate, drive progress, and guard their communities. This in turn facilitates more efficient

communication between community members. Community well-being leads to less segregation, and overall, less conflict between community members. Local policies which are not in line with residents' sentiments were found to gather less public traction, which resulted in failure (Nanzer, 2004).

Fourth, place attachment can contribute to natural conservation. Emotional connections to natural areas prompt a more intense recreational experience of nature (Sharpe & Ewert, 2000). Individuals are more attentive, and benefit from more restorative experiences (Sharpe & Ewert, 2000). High levels of place attachment have also been associated with pro-environmental behaviors (Kelly & Hosking, 2008; Cheng et al., 2013).

## Conclusion

The current study assesses the ways in which residents of the Hague connect emotionally to its waterscapes. The three locations chosen for this study constitute thick places, rich with meanings, which provide opportunities and experiences for individuals to emotionally connect to the place (Duff, 2010). With increased importance being allocated to urban waterfront regeneration in urban politics, it is important that these areas are planned accordingly to inhabitants' needs and preferences (Sairinen, 2006).

Place attachment is beneficial, not only for the individual, but also for promoting social contact, which may in turn support community building (Gurney et al., 2017). As place attachment involves feelings of appreciation and emotions related to a place, individuals value that place more intensely. This implies a common aim: caring for a valued place. Multiple communities coming together to such a place may facilitate civic action, as well as social participation (Gurney et al., 2017). This strengthens and unites distinct communities as individuals work toward a common goal: meeting, maintaining, relaxing, and being in the same place. These can be used as a strategy for combating social polarization and segregation in cities.

In the Hague, place attachment to the seafront is seen in 1) individuals who spent their childhood in the city and have fond memories of the seafront; 2) individuals who associate unique events to the seafront; and in seafront locations which 1) facilitate self-efficacy and goal achievement; 2) promote mobility, and include wanted facilities (parking, bike lanes, private areas, restaurants). These individuals are dedicated and are willing to allocated resources to better those environments. For instance, beach clean-ups, social events, and protests regarding future plans for the beachfront are examples of action taken by residents of the Hague driven by place attachment.

The current study introduces the potential of place attachment for urban policies. While analyzing various concepts such as imageability, place affect, place identity, and place dependency, the cognitive, emotional, and behavioral mechanisms of place attachment are described. Through in-depth interviewing, it becomes apparent that “different persons have different styles and sensibilities, which, in turn, lead to different perspectives and sightings of the same phenomenon” (Seamon, 1982, page 122). Hence, future research should consider individual preferences regarding urban place attachment.

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## Appendix 1

### In-depth interviews

All data that will be used in this research will be required from completely de-identified data will be obtained from in-depth interviews. The interviews will be conducted in situ, meaning that I will be going to the three seafront locations chosen, and pick my participants on the spot. Consent will be asked, after which the interview starts. A consent form will also be given to the interviewees (see consent form) so that they understand the research project and the data involved. The interviews are recorded, and consent for recording and processing the data is asked. The aim is to collect around 10-20 interviews, which is enough for the scope of this research. Given the fact that the questions are open and can facilitate long answers, there is no need for more participants. Another goal of this data collection process is to conduct a selection process which is not biased, meaning that an effort to collect data from individuals of varied ages, genders, ethnicities is made. The criterion for inclusion implies that the participants can communicate in English, and that they are residents of The Hague

The goal is to get 5 in-depth interviews from each location. Individuals are approached in situ. If they agree to doing the interview, consent will be asked for the recording, and we will proceed with the questions. The participants will be chosen on the spot. The interviews will be. Consent will be asked for the recording of data. The participants have to be living in The Hague. The interviews will be conducted in English, which implies that moderate levels of English need to be possessed by the interviewee. One major goal of this research to interview people which belong to different different genders, ages, ethnicities etc. This enables the researcher to gather data from a diverse population.

#### Data storage

The interview data is stored on the researcher's personal computer in an encrypted folder which cannot be shared with external sources (MacBook devices automatically encrypt store data to prevent data leakages). While the research is undergoing, all data derived from the interviews will be stored in the researcher's laptop. In addition, the data will be uploaded to a OneDrive. This prevents data deletion in case of an unforeseen event which can compromise the data, such as theft or technical difficulties. The initial raw data consisting of the interview recordings will only be handled by the researcher, and if necessary, by the research supervisor. Interview data will not be shared with anyone else. The raw interview recordings will be transcribed in a Word document to be easily handled by the researcher. Only relevant interview parts will be included in the final research paper. Identifiable information such as names and addresses are not included in the research in order to comply with confidentiality terms.

The data will be stored for 10 years after the research paper is published. This data will only be kept with the research supervisor, which will receive and store the data in OneDrive. The location of the data storage is secured and encrypted, and no other access is granted. The data on the personal computer of the researcher will be deleted after the research paper is published. The research data will only be kept on the OneDrive with the research supervisor.

#### Data storage structure

For the duration of the research, the data will be stored as follows:

- {MasterThesis}
  - InterviewRecordings
    - {Location\_1}\_{Participant number}.wav  
eg: Scheveningen\_01.wav
  - InterviewTranscripts
    - {Location\_2}\_{Participant number}.docx  
eg: Scheveningen\_01.docx
  - Analysis  
All of my analysis documents and spreadsheets will go in this folder
  - Thesis
    - Thesis\_{chapter}\_v{version number}.docx  
eg: Thesis\_Introduction\_v01.docx

## Appendix 2 Interview guide

### 1. Introductory questions

- 1.1 What's your name?
- 1.2 How old are you?
- 1.3 What gender do you identify with?
- 1.4 What is your nationality?
- 1.5 Do you live in The Hague?
- 1.6 For how long have you been living in The Hague?
- 1.7 In what neighborhood in The Hague do you live in?

### 2. Place connection

- 2.1 How often would you say you feel the need to go outside?
- 2.1 Why do you feel the need to go outside?
- 2.2 What would be your preferred place when needing to take a break/walk?
- 2.3 Why do you prefer that place?
  
- 2.4. How often do you go to the seaside?
- 2.5 What are the reasons why you go to the sea?
- 2.6 What are your thoughts on the Scheveningen seafront?
  
- 2.7 What are your thoughts on the Duindorp seafront?
- 2.8 What are your thoughts on the Westduinpark seafront?
  
- 2.9 If you had to choose, which seafront would you like to go to and why?
- 2.10 Do you go to the seafront for a specific reason (swim, run etc.)?
- 2.11 If not, then why would you go?
- 2.12 Do you go to the seaside on your own?

### 3. Place affect

- 3.1 What do you feel when you go to your preferred spot at the seafront?

### 4. Place dependence

- 4.1 Is there a purpose for why you go to the beach?

### 5. Place identity

- 5.1 Does the seafront reflect any ideas/memories for you?
- 5.2 Is there any place at the seafront that is memorable for you?

## Appendix 3 Consent form

### Information sheet

Name of Principal Investigator:	Amelia Dumitra-Mic
Universiteit Utrecht/ School:	specific MSc Urban Economic Geography, Department of Geosciences
Project Title:	Emotional attachment to waterscapes in The Hague

### Introduction

I, Amelia Dumitra-Mic, am a student in the master's program Urban Economic Geography at Utrecht University. I am doing research on waterscapes in The Hague, as a part of my dissertation research. I am going to provide you with information and thereby invite you to be part of this research.

### Purpose of the research and type of research intervention

The purpose of this research is to understand how individuals who reside in The Hague connect to 3 different seafront locations: Scheveningen, Duindorp, and Westduinpark. Existing research is focused on quantitative aspect of natural benefits, such as how much biodiversity is supported in a natural environment or how much water can be absorbed by vegetation during rainstorms. This research is interested in understanding emotional connections to natural areas, such as the sea. Seafronts have not been widely researched as a site of belonging. However, they constitute a place where people go to relax, enjoy time alone or with their friends, to exercise, to swim, and many more. These reasons can reveal that people perceive the beach and the sea as a place they potentially belong to, call home, or appreciate for specific reasons. This research attempts to reveal these reasons. This is done by doing in situ interviews with residents of The Hague.

### Participant and voluntary selection

The participants choose themselves if they want to participate or not. The participants initiate the discussion, and not the researcher. Participation in this research is entirely voluntary. It is your choice whether to participate or not. The choice that you make will have no bearing on your job or on any work-related evaluations or reports. You may change your mind later and stop participating throughout the interview.

### Right to Withdraw

You have the right to withdraw your consent to use the personal data that you have provided at any time (unless the data has been anonymized). You do not have to justify your decision to withdraw your consent and there are no consequences for withdrawing your consent.

### Procedures

You are invited to participate in this research project by having an interview/discussion regarding waterfronts and your feelings, emotions and thoughts regarding them. This interview is relatively open, will take about 10 minutes, and the participant chooses how much he/she wants to share with the researcher. Notes will be taken by the researcher, and the interview will be recorded. If you do not agree with my notes or if I did not understand you correctly, you may ask me to modify or remove parts of them.

### Potential Risks and Discomforts

During this interview, themes such as emotional connection and belonging are discussed. The questions are designed in a way that ensures that participant share as much information as they want to.

### Privacy

During this research we will ask you to provide personal data. Personal data is information that can directly (name, address etc.) or indirectly identify (beliefs, ideas, study etc.) you as an individual. This data will be used in this research to understand how residents of The Hague perceive waterbodies. The interview recordings will be transcribed, and only relevant sections of the interview will be added in the final research paper. The information included in the research paper will not contain personal identifiers, such as names or addresses.

### Confidentiality

1. We will only share your personal data with the research supervisor.
2. Direct identifiers, such as names and addresses are removed from your answers. Names will be replaced with pseudonyms, and addresses are kept as neighbourhoods only.
3. Please be aware that we have designed the questions in such a way that your answers will not directly or indirectly identify you.



**Retaining and sharing your data**

The data collected during this interview – interview recordings, consent forms – is stored in a secure location on a personal computer. The EUR Research Data Policy requires researchers to securely store all research data for 10 years after the research has been completed or published. The data will not be shared with anyone other than the researcher and the research supervisor.

**Your Privacy Rights and Contact Information**

You have the right to request access to your personal data and to change these if they are not right or to erase your data. If you want to invoke your rights or if you have a question concerning privacy about this study, you can contact Utrecht University's Data Protection Officer. If you would like to lodge a complaint concerning privacy, you can do this with the national supervisory authority in the Netherlands on personal data (Autoriteit Persoonsgegevens).

**Who to Contact**

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact any of the following:

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