

**155 PHOTOS
TO FIND
AN URBAN RIVER:
HOW EVERYDAY
EXPERIENCE SHAPES
MEANINGS ATTRIBUTED
TO URBAN RIVERS**

Mariia Kostenko
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Supervisor: Axel Prieb
Second reader: Jose Rodriguez



ABSTRACT

Rivers have influenced urban structures and played crucial roles in the social, cultural and economic life of cities. However, urban water landscape engineering interventions of past centuries, characterized by increasing urbanization and industrialization, led to the degradation and exclusion of water bodies from urban landscapes. In 1970, due to the rise of environmentalism, the value of urban rivers was rediscovered. Recent urban river rehabilitation and regeneration projects have intended to reconnect cities and urban rivers in different dimensions to create a more sustainable and attractive urban environment that provides possibilities for recreation and leisure. Such physical and functional transformations of urban rivers over past centuries fundamentally changed the values and meanings of urban rivers. However, cognitive-emotional bonds to urban rivers, a role of urban rivers in everyday life and meanings that are ascribed to urban rivers by individuals nowadays remain unexplored. Environmental psychology researches mainly address emotional bonds towards the house, neighbourhood or city dimensions as well as natural landscapes, while meanings and attachment to natural settings within the urban fabric are unknown. By applying concepts of environmental psychology and a photo-based method this inductive explanatory study aimed to research the meanings to the Danube canal (Vienna) and the Manzanares river (Madrid) by individuals and understand how meanings, that are shaped by everyday experience with physical and social landscapes, affect different dimensions of place attachment towards urban waterbodies.

Keywords: Urban rivers, place meanings, place attachment, environmental psychology

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INTRODUCTION

Rivers have always been important elements of cities across the globe and have produced a huge influence on urban structures as well as on the quality of life in cities. A remarkable riverfront character significantly affects the image and identity of cities such as London (the Thames), Paris (the Seine), Vienna and Budapest (the Danube), Kyiv (the Dnieper). However, urban landscape interventions of 19th and 20th century (construction of dams and highways along the riverbanks), industrialization (adaptation of riverbanks for industrial activities and development of dock facilities) and climate change (construction of flood protection facilities and channelization of rivers) have reduced the natural values of urban rivers, created a physical separation of urban rivers and inhabited parts of cities as well as restricted interaction between residents and urban rivers. Such actions have resulted not only in the destruction of the wildlife habitat and deterioration of the water quality, but also in the ruination of natural and cultural landscape values.

Changes in production technologies, development of new economies and industries, application of new approaches to flood protection and a call for environmental sustainability towards the end of the 20th century have contributed to the relocation of large-scale industrial and transportation facilities from central parts of urban water bodies. Influenced by a rise of environmentalism, the phenomenon of urban river regeneration and rehabilitation was developed in the 1960s and 1970s as a measure for a physical, chemical and biological restoration, a recovery of the functional and structural conditions of rivers as well as an enhancement of the meaning of rivers and improvement of surrounding areas. Post-industrial and channelized urban waterfronts became spaces with potential for a high-quality regeneration characterized by the development of new economic activities, employment, housing, a lively mix of households, refurbishment of historic buildings and new development (Smith & Ferrari, 2012). In the framework of sustainable urban development agendas (e.g. EU Sustainable Development Strategy, The European Thematic Strategy on The Urban Environment), urban river waterfronts were considered as natural spaces that provide possibilities for leisure and recreation activities, and play an important role in the planning urban

ecology, green areas and a daily life of residents (Rivers and lakes in European cities, Past and future challenges, 2016). Taking into account the growth of an urban population across the globe, that is estimated to increase from 4,2 billion (2018) to 6 billion by 2045, an access to green and recreational areas within an urban landscape become especially important (United Nations, 2018). Urban river regeneration and rehabilitation projects aim not only to provide wildlife habitat, but also to reconnect cities and urban rivers through different dimensions, and reveal cultural and historical meanings of urban rivers.

According to Selman (2006), a city-river landscape serves as an example of a cultural landscape where tangible and intangible, human and non-human elements create physical and social essences embedded with individual and collective perceptions' involving three interlinked aspects: form (referring to the visual); meaning (relating to the cognition); function (referring to biophysical processes and appropriation of the space by individuals) (Selman, 2006). Recent urban river regeneration and rehabilitation projects helped to rethink the role of urban rivers in the daily life of residents and provided more opportunities for activities and practices that influence a degree of place attachment. Place attachment is connected with the quality of life (Harris et al., 1996), life satisfaction (Billiget al., 2006) and provides a number of physiological benefits. Additionally, place attachment towards natural landscapes fosters subsequent environmental behaviour (Larson et al., 2015). Therefore, it is important to understand the cognitive-emotional bonds that exist between residents and urban rivers. However, the interactions, meanings and experiences of urban rivers in the context of recent transformations remain unexplored. Many studies of place meanings and attachment focus only on the house, neighbourhood, city dimensions. Consequently, understanding the meanings that are attributed to urban rivers as well as daily experiences that foster place attachment towards urban rivers and valuable characteristics of urban waterfronts will help to prevent the destruction of existing cognitive-emotional bonds within any types of urban interventions.

By applying a photo-based method this inductive study aims to investigate meanings that are attributed to urban rivers by individuals and research how these meanings affect place attachment towards urban rivers. This research describes and explains what urban rivers mean to individuals and how meanings, that are constructed through everyday experience with the physical and social landscapes, affect different dimensions of place attachment.

CHAPTER 1

THEORETICAL APPROACH

This chapter introduces an analysis of transformations of urban rivers over past centuries as well as different approaches to concepts of place and place attachment. It begins with a review of urban river modifications throughout history and current agendas for urban rivers management. It is followed by an analysis of various approaches to the notion of place within different fields. Lately, a concept of place meanings is discussed. The final part of the chapter examines different constructs of the concept of place attachment and its psychological benefits.

1.1 CONTEXTUAL APPROACH

1.1.1 URBANIZATION AND URBAN RIVERS

The origins and development of many cities are greatly related to water bodies. A remarkable riverine character produces a huge influence on urban structures and plays an important role in the social, cultural and economic life of cities. Water bodies were considered as sources for food and materials provision, means of transportation and trade routes, locations for industrial activities as well as recreation (Grimm et al. 2008). The historical geography studies claim that water bodies take central places on the urban fabric (Frank & Gandy 2006; Gandy 2014). This could be illustrated by the fact that almost all European capital cities have more than one river. Throughout history, urban rivers have been drivers of urbanization as well as sacrifices to urbanization (Castonguay & Evenden, 2012). Due to increasing urbanization and industrialization during the past centuries, urban rivers were dramatically modified that led to degradation of water bodies and alterations of ecosystems (Pickett et al. 2001). Former centres of social and economic activities - urban rivers - became completely forgotten and excluded from urban landscapes (Stokman 2008). Castonguay and Evenden suggested that

urban-riverine relationships may be reviewed through three lenses: industrializations and sanitary reform, geographical structure of the city, and environmental policies (Castonguay & Evenden, 2012).

Industrialization during the 19th and 20th centuries in many cities across the globe resulted in the reorganization of the internal urban structure, increasing the number of urban population and, consequently, a shortage of material and food supplies, as well as new types of water pollution. Not only have river banks become inaccessible to the public but also become insufficient for riparian vegetation that supports the biodiversity of the river and reduces the temperature of the water. Additionally, massive water consumption for industrial needs contributed to the reduction of the water ground level and limiting natural infiltration possibilities (e.g. Senne, Molenbeek and Maelbeek rivers in Brussels). Moreover, the development of electrochemical industries negatively influenced water quality and decreased species population (Wang et al. 2012) (e.g. Aker River in Oslo). In the nineteenth century, the Lower Lea River became an industrial centre of Outer London with the establishment of many coal-fuelled manufacturing units that, by the end of the century, caused as much pollution and sedimentation that the river could not fulfil transportation and industrial needs anymore (Clifford, 2012). Similarly, the development of the steel industry in the Russian Soviet Federative Socialist Republic caused alteration of Don river body and creation of impoundments for cooling mine water. As a result, Don became one of the most polluted rivers in the region (Maltby et al. 2010). Sanitary reform in the 19th century intended to improve the health of urban residents and the hygienic conditions in the city that, in turn, had to contribute to the uplift of moral conditions of society (Castonguay & Evenden, 2012).

For a long time, rivers were central objects in the urban fabric, rivers served as meeting and market places, provided energy for industries and facilitated trading activities (Castonguay and Evenden, 2012). Morphology of the river and a network of tributaries directly influenced the spatial organization of cities. Rapid urbanization and the advancement of engineering science in 19th century triggered the modification of urban rivers. Many rivers were channelized, covered with concrete, while floodplains areas were modified to accommodate growing urban populations. Construction of concrete walls or convert of urban rivers into sewers caused geomorphological transformations (Gurnell et al. 2007; Taylor & Owens 2009) and destruction of the eco-systems (Folke et al., 1997; Everard & Moggridge, 2011). Such brutal interventions in many cities led to

the visual disappearance of rivers and the fact that local communities became unaware of the presence of rivers and streams in their cities (Wild et al., 2011). Eden and Tunstall characterized the traditional European approach to urban landscape management as:

“...bury them, turn them into canals, line them with concrete and build upon the (now protected) floodplains” Eden and Tunstall (2006:662)

Channelization of Danube river in Vienna in 1875s prevented seasonal flooding and provided a possibility to transform former floodplains into residential and industrial areas. Lately, in the 1950s, the car-centred approach to urban planning detached urban rivers from the urban fabric because of the construction of high-speed traffic lanes along rivers. Construction of the highways on the banks of Manzanares and Seine river banks in Madrid and Paris caused the decay of neighbouring areas and isolated the waterbodies. Klein (1979) identified a straight connection between the extent of urbanization and river degradation.

1.1.2 REDISCOVERING THE VALUE OF NEGLECTED URBAN RIVERS

In 1970, after two centuries of dramatic degradation, due to the rise of environmentalism in Western societies, the value of urban rivers was rediscovered. Many urban regeneration projects embodied urban river restoration vectors in their agendas (Bruhn, 2015) to create a more sustainable and attractive urban environment that provides possibilities for recreation and leisure, minimizes the heat island effect and flood risks, prevents climate change, reduces water pollution, contributes to biodiversity recovery, and increases the land value. Such sustainability frameworks become especially important due to the growth of the urban population. According to the United Nations report, the urban population is expected to increase from 4,2 billion (2018) to 6 billion by 2045 (66 per cent of the total world's population) (United Nations, 2018). A range of EU directives suggested important implications for further rehabilitation of urban rivers (e.g. Urban Waste Water Treatment Directive, 1991; EU Strategy on Adaptation to Climate Change of 2013, 2013; Urban Agenda for the EU, 2016; Urban Water Agenda 2030, 2016). The Water Framework Directive (2000), the main article of EU water legislation, provided a fundamental shift by approaching the water, not as a resource but as a part of the environment. The Water Framework Directive elaborates 6-year cycle river basin management plans and sets requirements for ecological and chemical statuses for all European surface water that also includes the transformation

of concrete channel walls into more natural ones. The EU Strategy on Adaptation to Climate Change (2013) and a publication “Towards an EU research and innovation policy agenda for nature-based solutions and re-naturing cities” (2015) emphasized a need for urban water-related nature-based solutions for reducing flood risks and climate adaptation measures. The Urban Water Agenda 2030 (2016) underlines five core areas for sustainable urban water management such as water efficiency (reducing water consumption), energy and resource efficiency of urban water systems, water quality (preventing water pollution and guaranteeing sufficient ecological status of water bodies), sustainability of urban water infrastructure, flood prevention and nature-based solutions. Many EU cities apply water-centric overall urban design approach to achieve the blue-green city model (e.g. Copenhagen and Rotterdam) and give more space to rivers that results in various economic, socio-cultural and ecological benefits (Rijke et al., 2012). The recent urban river regeneration and rehabilitation projects and a range of EU directives have helped to rethink a role of urban rivers in the daily life of residents and have provided more opportunities for activities and practices that influence the experience of urban rivers and, thus, a meaning of urban water bodies in daily life (e.g. Benages-Albert & Vall-Casas, 2014). Despite the fact that urban residents are considered as receivers of urban restoration projects they are hardly involved in the decision-making processes of river restorations (Junker et al., 2007; Verbrugge & van den Born, 2018). Mainly, urban practitioners tend to undervalue intangible characteristics of places and disregard public perception of places (Manzo & Perkins, 2006). Nevertheless, the neglect of social and contextual factors may have a huge cost (Manzo and Perkins, 2006). Jacobs and Buijs, as well as other scholars, conducted a range of studies to emphasise the importance of considering cognitive-emotional bonds to the place within urban interventions over rivers (Jacobs and Buijs, 2011; Davenport & Anderson, 2005). Cognitive-emotional bonds to urban rivers are very complex as they are based on different values and meanings as well as require a long time to form (Åberg & Tapsell, 2013; Seidl & Stauffacher, 2013). Verbrugge and van den Born (2018) highlighted the importance of understanding meanings that individuals ascribe to city-river landscapes (places) as it helps to explain controversial views on landscape management (Verbrugge & van den Born, 2018).

To conclude, rivers are considered as the most heavily modified landscapes around the globe (Nilsson et al., 2005; Tockner & Stanford, 2002). Recently, in the framework of sustainable urban development and blue-green design approach, urban

river landscapes were transformed to restore rivers and provide ecological, economic, socio-cultural benefits (Rijke et al., 2012). However, emotional bonds that individuals develop towards urban rivers remains unexplored as well as meanings that are attributed to urban rivers by individuals. Consequently, existing bonds and meanings are not included in urban river regeneration projects and could be destructed within any urban projects and interventions.

1.2 CONCEPTUAL APPROACH

1.2.1 CONCEPTUALIZATION OF PLACE

“Place is how we make the world meaningful and the way we experience the world.” Cresswell (2004:12)

The world is perceived as a variety of different places that give us an opportunity to see and understand it better. There are different approaches to the concept of place within fields of cultural and social geography, anthropology and environmental psychology. Disciplines such as anthropology and cultural geography, consider a notion of “place” through the interpretive humanistic framework, and studying human experience (Bachelard, 1964; Feld & Basso, 1996). While cultural geographers such as Harvey (1989) and Soja (2000) look at the “place” through a lens of the neo-Marxist critique focusing on political action and institutional, local and global power relations. Environmental psychology defines the “place” as a range of shared values created through perceptive experiences of places underpinned by concepts such as ‘place attachment’, ‘place identity’ as well as ‘sense of place’ (Smith & Ferrari, 2012). Within the field of philosophy, the “place” is a means of being in the world. While, in architectural and design practices, the “place” is considered mainly from the perspective of physical attributes and built environment, leaving the dimension of individual and collective meanings aside (Relph, 1981).

For a long time, the dominance of the spatial science guided by a descriptive approach that narrowed the notion of place only to the dimensions of distinctiveness and particularity. As a result, the aspects of the human experience of the place were disregarded. Only a few decades ago, within a field of humanistic geography, Tuan (1977) introduced one of the fundamental ideas of place theory claiming that through our

experience and perception of places we learn about the world. Tuan suggested that the notion of “place” differs from more abstract and functional notions such as “location” and “spaces” due to the fact that places are fields of care that infused with meanings and feelings that are based on knowledge, perceptions, human connections, senses, as well as beliefs. Subsequently, he introduced the term “topophilia” that described the emotional connection between humans and places (Tuan, 1974). According to Tuan, the place has no scale, it could be as tiny as a nook in a house or as big as a planet; it could be a city square as well as a little cosy sofa (Tuan, 1974).

A prominent book “Place and Placelessness” (1976) by Relph stated that everyday experience plays a key role in understanding and knowing a place. Influenced by the philosophical work of Heidegger (1971) and the philosophy of phenomenology, Relph appealed to the essence of the place, by questioning “what makes a place a place?”. He defined various characteristics that reveal the essence of the place and human experience of the place such as visibility, the sense of community, the sense of time and the value of rootedness. Relph distinguished 3 elements that construct place: “physical settings, “human activities” and “meanings”. Lately, he explained:

“Place is more than a location. ‘Place’ meant “those fragments of human environments where meanings, activities and a specific landscape are all implicated and enfolded by each other.” (Relph 1993:37)

This way, “place” may be described as a geographical location that is characterized by specific meanings, memories, sensual experiences, stories and interpretations.

In social science, Agnew defined place as a “meaningful location” Agnew (1987:28). He indicated “location”, “locale” and “sense of place” as three main components of the “place”. “Location” refers to a specific geographical area that encompasses the settings for social interaction. “Locale” is related to the built or physical environment that serves as a platform for various social interactions and connections that could have an official and unofficial character. “Sense of place” described as a cognitive-emotional attachment and connection that people develop toward places. According to Agnew, all three components have to be considered equally because place exists in a particular social context that is created by social relationships; place has a specific geographical location that suited in the social, economic and cultural contexts; place gives a feeling of the particular ambience and an abstract spatial distinctive character (Agnew, 1987). Such definition of place goes close to other concepts of human geography - space and

landscape.

An urban theorist Lefebvre (1991) distinguished two types of space – abstract space (an absolute space) and meaningful space (a social space), where social space is similar to the notion of place. Tuan considered space as more an abstract notion without meaning that associated with a movement, while the place was seen as a pause. His metaphor about pauses in a movement could be translated into a spatial dimension as places in a location, thus every location could be converted in a place (Tuan, 1977). While Relph defined space as “a framework” or “an environment” for the place, that is seen as a shapeless impalpable essence, which in turn, might be characterized and studied (Relph, 1976).

The landscape comprises visual characteristics and qualities, thus, it refers to material topography. It is defined as a piece of land that could be viewed from one spot. However, the landscape relates not only to material settings but also to human or cultural aspects, creating cultural or human landscapes. Cresswell emphasised that landscapes are not for inhabitation, but they are for contemplation (Cresswell, 2004).

Following the humanistic idea of three elements of “place construction”, psychological science interprets the “place” as a notion that composed by actions, conceptions and physical attributes. Canter, as a representative of the psychological approach, suggested that construction of place includes four interconnected components. In “facet theory”, Canter (1997) listed “functional differentiation”, “place objective”, “a scale of interaction” and “aspects of design” as elements of place. Functional distinction addresses the characteristics of the built environment, particularly focusing on how the design of the built environment affects patterns of behaviour and practices in a specific setting. Place objectives correlate with earlier suggested “conception element”, but have a more precise approach to the place experience by distinguishing cultural, individual and social aspects of it. A scale of interaction facet emphasizes the significance of the scale.

In spite of the diversity of approaches to the concept of place within different disciplines, they all define meanings as an essential component of the place.

1.2.2 PLACE MEANINGS

Everyday experience constructs and deconstructs the meanings that humans attribute to physical settings. In order to understand the processes of meaning construction, an environmental psychologist Stedman (2003) defined three models of

attributing meanings to places. The first one is “Direct Effects Model” (also called Genius Loci), it suggests that in some cases, meanings are not affected by experience with settings but already imbued with the setting features (Shumaker & Taylor, 1983; Shields, 1991). Referring to the natural landscapes Ryden (1993) underlined the importance of the role of physical settings in the process of meanings construction, specifically relating to the scales, tones and colours, masses and voids, patterns and textures, shadow and lights, wind and moisture, sounds and temperature. Ryden’s idea was criticized by Jackson (1994) who pointed that meanings are a result of habits and customs that are created by humans over time. The second model is “The Meaning-Mediated Model”, it correlates with the “Direct Effects Model” and implies that physical features affect symbolic meanings of place. The third model is “The Experiential Model”, it proposes that past experiences that took place in particular physical settings directly influence meanings that are attributed to the physical settings. This means that some features of physical settings facilitate or restrict some patterns of interactions and experiences that construct meanings. However, Stedman concludes that it is not clear whether physical settings drive typologies of interaction or human behaviour and physical settings are highly independent aspects. These models describe the ways how meaning being attributed to places, but they still need to be empirically researched within different geographical and social contexts.

In research on meanings that are ascribed to “home” Sixsmith (1986) applied The Experiential Model of meaning construction. He pointed out that meanings that British students give to homes can be organized in three groups - personal, social and physical. Lately, Gustafson discovered the interconnectedness of the relationships between self, others and/or environment in processes of the attribution meanings to the place. Based on the empirical work, he developed a three-poles triangular model of place meanings (Gustafson, 2001). In this model “self” implies personal terms connected with a life path and different life stages of individuals (like childhood or adolescence), activities and self-identification; “others” encompasses terms that attribute meanings through perceived characteristics of places and behaviours of their inhabitants sometimes without any references to social relations and personal contacts; “environment” refers to terms related to distinctive features of the physical, built and natural environment as well as historical and political environments identified with political institutions and institutional practices. However, some meanings might be mapped between poles, creating poles such as “self - others-environment”, “environment-self”, “others-environment” and

and “self-others”. Additionally, Gustafson underpinned a range of dimensions within which meanings emerge. At some point, such dimensions correspond with the features suggested by Twigger-Ross & Uzzell (1996) for the place identity construction study. Gustafson claims that themes “distinction”, “continuity”, “change” and “valuation” illustrate a simplified process of the construction of meanings. Distinction dimension reflects the notion that human cognition tends to categorize and distinguish places according to similarities/differences as well as unique features (Zerubavel, 2009). While for Twigger-Ross and Uzzell, distinction of place serves as a statement of self-identification. Valuation dimension refers to the normative component that arises within the comparison of the distinctive characteristics of places and often has a positive or negative character. Mainly valuation refers to places or to its inhabitants of places emphasising an interrelation between meaning construction and a degree of personal involvement in particular places. Although, Twigger-Ross and Uzzell operate valuation of place as a subject of self-esteem and positive valuation of self. Continuity dimension implies that meanings engage with temporal dimension (e.g. a life path, a length of residence). Despite that continuity particularly relevant “self” related meanings, it also underpins important aspects of place-bound social relations, a historical landscape and cultural landscape. Again, in Twigger-Ross and Uzzell’s research, continuity applied to “continuity of the self”. Similar to continuity, change shares the temporal dimension but indicates the changeability of meanings over time that is influenced by the emergence of new meanings or external impacts. Gustafson summarised that a meaningful place is an ongoing process that is constantly being shaped by different external factors and influenced by the time (Gustafson, 2001).

Some scholars claim that as place meanings are results of personal interaction with a place, place meanings are entirely individualistic. In other words, a particular place could be attributed with a countless number of meanings because every meaning reflects a particular individual experience (Relph, 1976). “Not all places mean the same to everybody” Gustafson (2001:11). Massey noted that places are not static, they constantly interact with the surrounding context and consequently, constantly produce new meanings, which may signify differently from person to person (Massey, 1994). Therefore, different meanings that exist towards the same place may lead to conflicts and confrontations between different social groups as well as foster the uniqueness of the place (Pile & Keith, 1997). Others believe that meanings are constructed and shared within social categories or influenced by shared experiences (Greider & Garkovich, 1994).

Stedman and his colleagues refer to the example of farmers who share similar meanings towards the land plot that are completely different to the meaning that real estate developers or hunters ascribe to the same land plot (Stedman et al., 2003). However, in some cases, meanings might neither be the results of individual nor collective interpretation of the experience. Place meanings could be constructed and reconstructed by power-holding individuals and coalitions to achieve specific desires (Urry, 1995; Pred, 1983; Molotch et al., 2000). Referring to the landscape, Greider & Garkovich claimed that meanings attributed to the physical environment could be completely based on the meanings shared among the ruling groups or other groups in power (Greider & Garkovich, 1994).

Similarly to places, meanings are not static. Place meanings are constantly shaping and reshaping by direct and indirect experiences (Cheng et al., 2003). Meanings are interconnected with physical settings, changes in the physical settings influence place meanings (Stedman, 2003; Greider & Garkovich, 1994). Greider and Garkovich noted that some modifications in the physical environment could influence the self-identity of the inhabitants of that environment (Greider & Garkovich, 1994). However, a strong attachment to the meaning attributed to the places could foster place-protective behaviours, especially in the cases of potential threats for a place (Stedman, 2003).

Understanding place meanings could help to understand the behavioural patterns within a place and protect the existing meanings from destruction. Williams and Patterson emphasise that public participation in planning could prevent the destruction of place meanings (Williams & Patterson, 1996).

In the context of postmodernity, globalization, internalization and a turn from “knowledge society” to “information society”, personal bonds with places and people have been significantly transformed and became less steady and durable (Gustafson, 2001). Some scholars suggest that the meanings of some places and relations to the local context have been challenged due to the rapid development of information and communication technologies as well as a unified architectural design that have influenced social connections and personal experience (Meyrowitz, 1986; Giddens, 1991; Hay, 1998). Such realities have contributed to the fragmentation and detachment from the local context that leads to the “placelessness” (Relph, 1976).

1.2.3 PLACE ATTACHMENT

Symbolic meanings, that are constructed through the interaction with physical settings, underpin place attachment. Stedman claimed that we become attached to the meanings that we attribute to the landscapes (Stedman, 2002). In spite of growing interest within different disciplines and, particularly, environmental psychology to the concept of place attachment, it is remaining ambiguous because of the lack of consensus on the definition of place attachment. A diversity of theoretical conceptualizations and empirical approaches is one of the main obstacles to the advance of the concept (Hidalgo & Hernández, 2001; Woldoff, 2002). In some researches, resembling notions such as “place identity” (Stedman, 2003), “sense of place”, “rootedness” (McAndrew, 1998), “place dependence” as well as “homeness” (Cuba & Hummon, 1993) meant the same affective bonds to place as place attachment. In other researchers, place attachment is considered as one of the components of sense of place (Hidalgo & Hernández, 2001). Also, there is a little consensus on the components of place attachment (Proshansky et al., 1983; Hay, 1998; Kyle et al., 2004; Jorgensen & Stedman, 2001).

Generally, studies of place attachment focus on cognitive-emotional bonds between individuals and their environment, where emotions and feelings become the main objects of research (Low & Altman, 1992). Jorgensen and Stedman described place attachment as a positive emotional connection between human beings and the surrounding environment (Jorgensen & Stedman, 2001). However, place attachment is very complex. It implies an interplay of emotional qualities (emotions and feelings), cognitive qualities (knowledge, views and beliefs) as well as behaviour qualities (practices and actions). Place attachment develops through interaction between people and places, when physical space is endowed with meanings, feelings and values (Milligan, 1998; Relph, 1976; Tuan, 1980). There are different approaches to a conceptualization of place attachment. One of the concepts is framed by Schreyer and colleagues (1981) and Williams and Roggenbuck (1989) who suggested that place attachment comprises of place dependence as well as place identity and employs a bio-physical dimension of the place.

Place identity reflects emotional attachment and symbolic relationship with the place that refers to self-identity (Jorgensen et al., 2007; Williams & Vaske, 2003). According to Proshansky, place identity is a cognitive link among “self” and “environment” that indicates a person’s relationships with the physical world.

He explains that individual's personal identity is influenced by the physical environment thought conscious and unconscious thoughts, beliefs, choices, senses, values, aims patterns of behaviour that are related to the particular environment (Proshansky, 1981). This way, the physical environment could serve for expression and assertion someone's identity that enhances self-esteem (Giddens, 1991) and community belongingness (Raymond et al., 2010). In some cases, place identity might be constructed irrespectively to the interaction with space (Proshansky et al. 1983). Lynch claimed that this is an identity that differs the place among other places, however, identity could be different for individuals (Lynch, 1960). In quantitative researches, place identity is measured using scale items (e.g. "this place is very special to me", "this place means a lot to me", "I am very attached to this place", "I identify strongly with this place", "visiting this place says a lot about who I am" (Kyle et al., 2003; Williams & Vaske, 2003).

Place dependence defines functional bonds to the place that is related to an individual connection to the physical environment. It shows how good a complex place setting provides conditions to maintain certain aims and preferred practices having an existing variety of alternative options (Williams & Vaske, 2003; Jorgensen & Stedman, 2001; Williams and Roggenbuck, 1989). Stokols and Shumaker (1981) put the functional value of the place as an important dimension. Moore and Graefe (1994), analyzed the dependence on recreational settings when unique opportunities for facilitation of particular activities, emotional and symbolic relations become key factors in the dependence construction. This idea was illustrated in the research on hiking trails in the White Mountains of New England (Moore & Graefe, 1994). It showed that some hikers were attached to the hiking trail because of the preferred steepness and ruggedness of the trail, for other hikers, the nostalgic memories of childhood trips become a main source of the attachment. A functional attachment could increase due to the proximity to the place and possibilities for frequent visits. Williams & Vaske (2003) appeal to the example with kayakers suggesting that a river with relatively average rapids, but is in close proximity to an individual's home might be still frequently floated because it provides possibilities to practice specific skills. Therefore, place dependence represents continuous relationships with a place. In quantitative researches, place dependence is measured using scale items (e.g. "this place is the best place for activities I like to do", "I would not substitute any other area for the activities I do in this place", "no other place can compare to this place" (Kyle et al., 2003; Williams & Vaske, 2003).

Such dual structure of place attachment, that consists of place identity and place

dependence, was tested and measured in a range of researches (Bricker & Kerstetter, 2000; Kyle et al., 2003; Vaske & Kobrin, 2001), validated as well as generalized by Williams and Vaske (Williams & Vaske, 2003). Moreover, the interrelation between place identity and place dependence made possible to extend the research by including variables such as landscape values and visitors' spending preferences (Brown & Raymond, 2007; Kyle et al., 2003). However, this model neglects the social and environmental aspects of person-place bonding.

The literature on environmental psychology suggests that social bonding is an essential dimension of place attachment that reflects emotional bonding to the place that is shaped by shared past experiences and social relationships that developed in that place (Raymond et al., 2010; Sampson & Goodrich, 2009). Social relationships that were established in specific physical settings could create meanings that are identified with experiences and relationships that occurred in these specific physical settings. This dimension is more noticeable in relation to dimensions such as a house, a neighbourhood, and a city. The residents' social relationships within a neighbourhood influence the attitude to the neighbourhood (Mesch & Manor, 1998). Hidalgo and Hernández noted that residents who have more friends living in the neighbourhood feel a stronger attachment to the neighbourhood (Hidalgo & Hernández, 2001). There is a range of constructs that interpret social attachment, such as "place belongings" when individuals identify themselves as part of particular settings (Raymond et al., 2010; Kyle et al., 2004); "place rootedness" when individuals feel a great attachment to house (McAndrew, 1998; Hay, 1998; Cuba & Hummon, 1993); "neighborhood attachment" when individuals feel emotional bonding towards close surrounding (Brown et al., 2003); "place familiarity" when individuals relate delightful memories and images to the place (Roberts, 1996); "community attachment" when individuals feel an emotional connection to the social and cultural aspects of the community (St. John et al., 1986; Theodori, 2000). Kyle and colleagues suggest that social bonding within the recreational landscape could occur because of social relationships that were developed in the recreational landscape (Kyle et al., 2005). This was illustrated in the study of the attachment towards the Appalachian Trail, where the community bound individuals and the natural landscape. In quantitative researches, social bonding is measured using scale items (e.g. "I have a lot of fond memories about this place", "I have a special connection to this place and the people who are here", "I will (do) bring my family members (friends) to this place" (Kyle et al., 2005).

For some time a role of the environment in the construction of place attachment was undervalued (Stedman, 2003; Mesch & Manor, 1998). The definition of place attachment indicates two components for developing an emotional bond such as “person” and “environment” (Low & Altman, 1992; Moore & Graefe, 1994) but physical settings were hardly recognized an essential dimension of place attachment (Brown 1993). However, some places are much richer in terms of the natural environment, thus, the elements of such natural environment might be considered a ground for place attachment (Sack, 1997). In the research of place meaning formation, Eisenhauer and colleagues illustrated an interconnection between places, a rich natural landscape and social interaction (Eisenhauer et al. , 2000). For 36,9% of respondents place meanings were based on “family & friends related reasons”, 34,2% on “environmental features & characteristics of place”. Such findings suggest that local community culture affects place meanings as much as a natural landscape affects community culture. Natural bonding might develop towards the non-human natural environments due to historical, emotional or cognitive connections to the place (Raymond et al., 2010). Individual experience with nature provides an essential influence on the formation of one’s sense of self and foster environmental identity (Clayton, 2003; Bragg, 1996). Further, the biophilia hypothesis suggests that humans’ attachment to natural landscapes and humans’ well-being are greatly affected by relations with the natural environment (Ulrich et al., 1993; Brown et al., 2003; Rollero & De Piccoli, 2010). A study on hikers in the Appalachian Trail showed interrelations between place attachment, participation in recreational activities and features of the natural landscape (Kyle et al., 2004). It was identified that place attachment to the natural landscape was greatly influenced by specific motives to participate in recreational activities as well as the features of the natural landscape. Furthermore, the empirical research on meanings and features of the natural landscape among visitors of Jasper National Park, Alberta by Steadman showed that ecological, social and cultural components directly affected meanings attributed to the natural landscape (Steadman, 2003). In quantitative researches, natural environment bonding is measured using scale items (e.g. “I would feel less attached to this place if the native plants and animals (birds) that live here disappeared”, “I am very attached to the natural environment at this place” (Raymond et al., 2010).

Kaltenborn (1997) claimed that a degree of attachment differs in different geographical scales. His research on attachment to recreational homes in natural settings showed that respondents were more attached to their recreational homes

and surroundings and less to places far from them. Following this Kaltenborn raised a question, whether, at some scales, the attachment might be replaced by ordinary awareness and familiarity with a place. Some scholars also question whether place attachment is more likely to form towards specific scales (Raymond et al., 2010).

Another matter that has been articulated regarding place attachment pertains to the time aspect of places attachment, questioning how much time it takes for attachment to develop. Thinking about place attachment formation as a steady process of experience accumulation leads to the idea that people who spent most of the time in a place have a stronger attachment (Relph, 1976). Ryden also noticed that a length of residence produces an influence on the feelings towards a place, he found that the longer the residence is the more embodied the significance of the place in the lives of the residence is (Ryden, 1993). On the contrary, some suggest that the formation of place attachment may be a quite fast process. Tuan (1977) said that dramatic landscapes and intense experiences could drive the rapid formation of place attachment.

1.2.4 AN INTEGRATED MODEL OF PLACE ATTACHMENT

Raymond and colleagues combined more traditional aspects of place attachment with social and natural aspects of attachment (Raymond et al., 2010). Such integrated four-dimensional structure conceptually and empirically integrates personal, social and environmental contexts of attachment. The contexts that are applied to the model could be described in the following way: the personal context relates to relationships between “self” and “place” and addresses concepts of place identity and place dependence respectively; the community context refers to emotional bonds to the place that is affected by shared experiences and social relationships that developed in the particular place; the natural context relates to the natural environment bonding that reflects emotional connection to the nature.

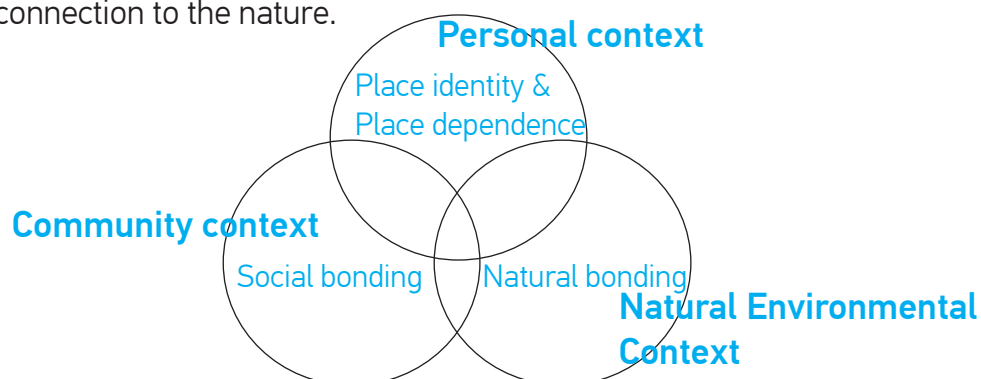


Figure 1 | A three-pole and four-dimensional model of place attachment by Raymond, Brown & Weber (2010)

1.2.5 PSYCHOLOGICAL BENEFITS OF PLACE ATTACHMENT

An individual's relationship with the surrounding environment is considered to be one of the essential factors that influence dimensions of the well-being (Brown et al., 2003; Rollero & De Piccoli, 2010), quality of life (Harris et al., 1995), and life satisfaction (Billig et al., 2006). Empirical researches within the fields of environmental and social psychology indicate that place attachment bonds reveal a range of psychological benefits. Place attachment contributes to emotional and cognitive restoration (Hartig et al., 2001; Korpela & Hartig, 1996). Moreover, person-place bonds towards recreational areas help to deal with daily stress (Kaltenborn, 1997). Attachment to the neighbourhood, home and favourite places contributes to the elimination of stress (Jorgensen et al., 2007). In the research of undergraduate students in Berkeley, Korpela and his colleagues found that being in favourite places and experiences in favourite places contribute to the decrease of the level of stress, the detachment from the everyday bustle as well as self-reflection (Korpela et al., 2001). Place attachment evokes a strong sense of belongingness. In turn, belongingness may strengthen social capital and enhancing social ties (Kyle et al., 2004; Manzo & Perkins, 2006). Destruction of place attachment bonds produces a negative influence on place attachment. For example, a study of migrants who were displaced from their homes in the West End Boston neighbourhood indicated that a break of place bonds results in health problems, alienation and depression (Fried's 1963). Furthermore, a sense of happiness may be derived through spending time at the place that an individual loves (Joaquim Araújo de Azevedo et al., 2013).

Some scholars also indicate an interconnection between place attachment and pro-environmental behaviour (Raymond et al., 2010; Junot et al., 2017). An individual's perception and experience of place contributing to a more complex understanding of sustainable, ecological and protective behaviours that aim to decrease a negative impact on the environment and improve environmental quality (Steg & Vlek, 2009). Wakefield and his colleagues (2001) empirically confirmed that individuals who share a greater sense of belonging are more likely to be involved in civic and protective actions than those who have less strong ties with a neighbourhood (Wakefield et al., 2001). Furthermore, individuals that indicate that interaction with the natural environment significantly contributes to their well-being tend to engage in the environment more intensely and maintain environmentally protective activities (Davis et al., 2009). As the deterioration of the environment may be experienced as a loss of the part of self-identity

(Schultz, 2000). A range of researches defined that people who have a strong bond to the neighbourhood are more likely to choose energy-efficient products and reduce car use in the neighbourhood (Kaida, 2015) or reduce water consumption and promote recycling of the water (Vaske & Kobrin, 2001; Scannell & Gifford, 2010). To conclude, it is essential to consider not only economic concerns within land management activities but also contributions from the fields of environmental psychology and human geography. (Brandenburg and Carroll, 1995; Williams & Stewart, 1998).

1.3 CONCLUSION

The literature on place attachment encompasses works from many disciplines that emphasize different dimensions of place attachment such as social and cultural dimensions of the place (such as community attachment), the biological and physical dimensions (dual dimensional model of place attachment that includes place identity and place dependence), the interplay of the social, cultural and physical landscape aspects of place attachment. However, there is no unified place attachment concept. The two-dimensional model (Williams & Roggenbuck's, 1989) disregards crucial relations to the social and natural environments that form a personalized attachment. A three-pole model "Self-Other-Environment" proposed by Gustafson (2001) aimed to include natural and social dimensions. Recently, a range of research has been conducted to support Gustafson's model. For example, natural bonds were investigated from the perspective of individual identification with natural landscapes and connectedness to the natural environment (Clayton, 2003; Schultz, 2000; Schultz & Tabanico, 2007). Social aspects of attachment were researched from the perspective of belongings and neighbourhood attachment (Kyle & Chick, 2007). A range of researches was conducted to measure individuals' attachment focusing on the comparison of social and environmental factors of attachment (Brehm et al., 2006). Additionally, Scannell and Gifford developed a scale that involving civil and natural dimensions of attachment (Scannell & Gifford, 2010). However, previous researches neglect the relationships of social and physical dimensions of place attachment with greatly personalized attachments (Williams & Vaske, 2003). Therefore, there is a need for a model of place attachment that examines the interaction between social and natural landscapes and how both of them influence self-identity and functional connection (Davenport et al., 2010). An integrated four-dimensional model proposed by Raymond and colleagues extends the three-pole model "Self-Other-Environment" proposed by Gustafson (2001) and provides a more complete

and complex study of place attachment by encompassing more traditional dimensions of place attachment with social and natural-based attachment (Raymond et al., 2010).

1.4 RESEARCH GAP

Place attachment and relationships with surrounding environment have a huge influence on dimensions of well-being (Ulrich et al., 1993; Brown et al., 2003; Rollero & De Piccoli, 2010) such as quality of life (Harris et al., 1995) and life satisfaction (Billig et al., 2006) as well as affect pro-environmental behavior (Davis et al., 2009; Raymond et al., 2010; Junot et al., 2017). In spite the fact that urban rivers are among the most greatly managed landscapes around the globe (Nilsson et al., 2005; Tockner & Stanford, 2002), urban practitioners tend to undervalue a meaning of emotional bonds that individuals develop towards urban water bodies within urban interventions over rivers (Davenport & Anderson, 2005; Junker et al., 2007; Verbrugge & van den Born, 2018; Manzo and Perkins, 2006). The literature on place attachment mainly focuses on emotional bonds towards the house, neighbourhood or city as well as natural landscapes, however attachment to natural settings within the urban fabric remain unexplored. Neglect of meanings that individuals attribute to natural settings within the urban fabric may lead to the destruction of existing cognitive-emotional bonds within any types of urban interventions and cause conflicting views on landscape management.

A bulk of place attachment researches that investigates place attachment to the natural environment, emphasizes an individual connection to nature but neglects a social context of attachment. Researches that study attachment to the social landscape, emphasising social bondings and belongings but neglect a natural environmental dimension of attachment. A diversity of place attachment models that emphasize particular dimensions of place attachment caused a call for a complex model of place attachment (Williams & Vaske, 2003; Davenport et al., 2010). An integrated three-pole and four-dimensional model proposed by Raymond and his colleagues provides a possibility to regard social and natural aspects of place attachment together with greatly personalized attachments. This model was applied to natural and rural landscapes, but its relevance to urban context was questioned because of the assumed weaknesses of the bonds to the natural environment in the urban landscape (Raymond et al., 2010).

Additionally, various place attachment researches have an evaluative character aiming to measure the extent to which a place is important to a person, or how much the functionality of a place fulfils the needs of a person, or how much a place contributes to the sense of self, but not to describe what a place means and what kind of a place it is.

CHAPTER 2

METHODOLOGY

This chapter introduces a research question that is followed by a description of the research design and comparative case studies approach. Later, a method for the study of place meanings and attachment is explained together with an analysis framework and spatial and visual analysis.

2.1 RESEARCH QUESTION

This research aims to investigate the meanings that are attributed to urban rivers by individuals and how these meanings affect place attachment towards urban rivers. This research has an explanatory character and attempts to answer what urban rivers mean to individuals and how meanings, that are constructed through everyday experience of the physical and social landscape, affect different dimensions of place attachment. The main research question is thus:

How does everyday experience shape meanings of urban rivers and affect personal, social and environmental dimensions of place attachment?

2.2 RESEARCH DESIGN

The research design is illustrated in the following figure. The previous section reviewed the existing literature and identified the gap in the studies of place meanings and place attachment, following which the main research question was formulated.

The research consists of two case studies. Subsequently, an analysis of the findings, followed by a discussion part, a critical reflection on the methodology, a practical implication and a conclusion.

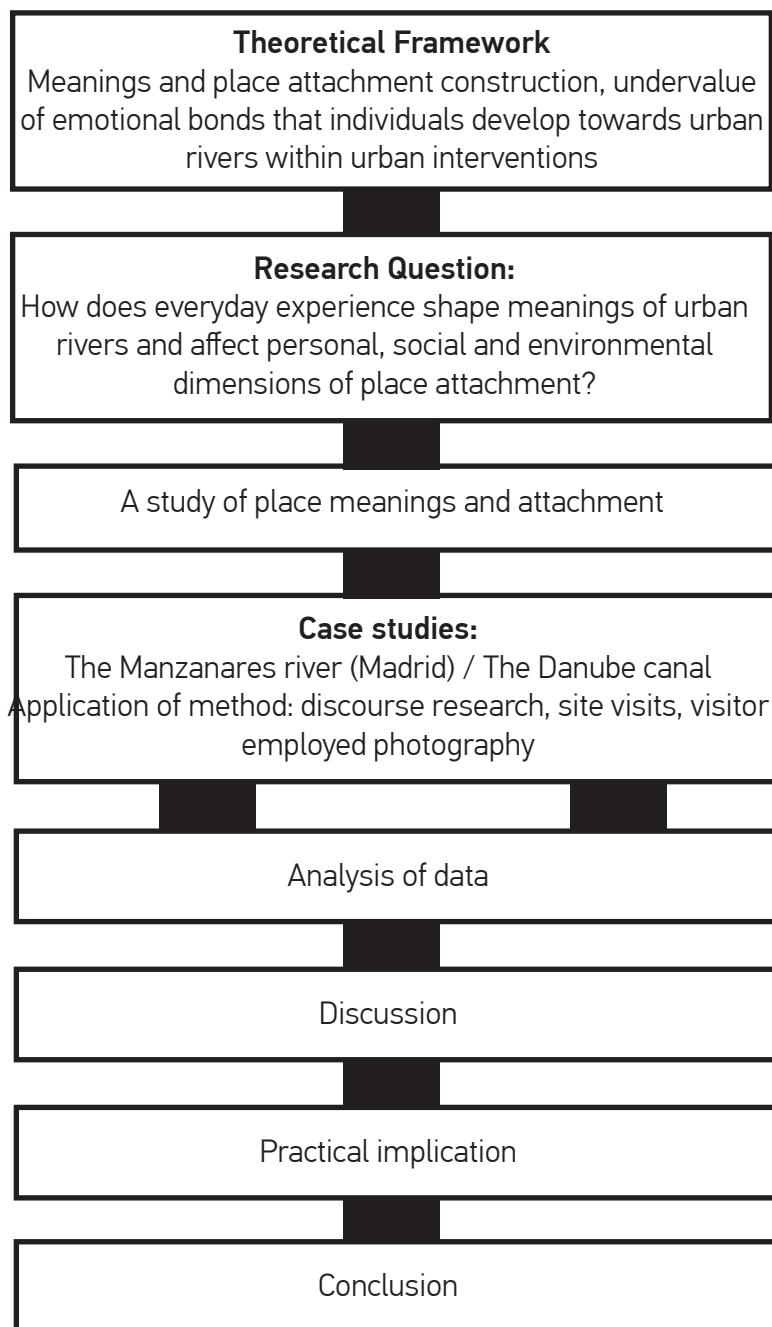


Figure 2 | Research design diagram (Source: Author)

A lot of research addresses place attachment emphasizing one dimension of place attachment or another, but a place attachment model that addresses all dimensions of place attachment is not recognized. Raymond and colleagues developed a three-pole four-dimensional model of place attachment that considered personal, social and environmental contexts (Raymond et al., 2010). However, Raymond and colleagues estimated that such a model is not applicable to urban landscapes. This research aims to test such a model in the urban context by applying it to a study of place attachment towards urban rivers.

A majority of place attachment researches have an evaluative character, but only a few have a descriptive. This research has an explanatory character and aims to understand what place means to individuals, particularly, what is the meaning of urban rivers for individuals. Additionally, this research address some place attachment discourses.

The first discourse relates to the place attachment formation and questions the construction of places attachment as an experience accumulative process, therefore a sample of participants have been considered on the basis of their length of residence in Madrid and Vienna.

The second discourse addresses a process of meaning construction and questions whether meanings are constructed individually or are constructed and shared within social categories (Greider & Garkovich, 1994; Stedman et al., 2003), therefore a sample of participants have been considered on the basis of the social category that is based on age.

Further, the research aims to understand how the proximity of participant's residence to urban rivers influences their place identity. Therefore two categories of participants have been considered, based on the proximity of their residences to urban rivers, in the following manner: Group 1 - home is located within 1,7 km to an urban river ~ 15 minutes walk; Group 2 - home is located more than 1,7 km to an urban river ~ 15 minutes walk.

2.3 COMPARATIVE CASE STUDIES APPROACH

Two different case studies approach provides a possibility to address different typologies of urban rivers and understand how such differences influence the meanings attributed to urban waterbodies.

Two cases the Danube Canal in Vienna and the Manzanares River in Madrid were selected for the research due to a fact that both waterbodies represent different historical and geographical contexts, but show similar patterns of engineering modifications and regulations during past centuries. Nowadays, the Danube Canal and the Manzanares river are guided by the EU water directives and agendas that require a wildlife habitat restoration, an improvement of the water quality and reconnection of the city and urban rivers through different dimensions revealing the cultural and historical meanings of urban rivers. However, selected case studies introduce different approaches to the appropriation of water bodies and waterfront spaces that provide different experiences of waterbodies. Investigation of two different, but comparable case studies, contribute to the production of more credible research outcomes.

2.4 METHODS

2.4.1 RESEARCHING PLACE MEANINGS AND PLACE ATTACHMENT

A study of place meanings applies photo-based method that is grounded on the modified Visitor Employed Photography method developed by Stedman and his colleagues (2004).

Visitor Employed Photography (VEP) is a photo-based method that is applied to studies of outdoor recreational experience, leisure, landscape aesthetics (Chenowith, 1984; Dorwart et al., 2006).

By placing cameras in the hands of participants, it has been used as a tool for capturing people's perception of scenery and scenic values. In spite of the high popularity of VEP among tourism and leisure studies, recently this method has been used for measuring people's perception of constructed environments as a part of community planning (Hawkins et al., 1999). Haywood (1990) suggested that VEP provides a range of benefits such as: i) photography is an enjoyable activity for tourists that helps to summarize observations; iii) photography helps to identify meaningful

locations and particular elements that evoke positive or negative feelings. Photography invites participants to “think visually” and relate to the materiality of the surrounding environment (Schoepfer, 2014).

VEP was used for the first time for a study of place attachment in the research conducted by Stedman and colleagues in Jasper National Park, Canada (Stedman et al., 2004). Despite the fact that usually, VEP implied photos that represent the quality of recreational experience of visitors or tourists (Chenoweth, 1984; Haywood, 1990), Stedman et al. (2004) modified VEP to addresses place attachment.

The main modifications made by Stedman and colleagues touched on research subjects and interpretation of photos. Firstly, residents were asked to photograph their sources of attachment because their experience with a landscape is much deeper than the visitors’ experience. Secondly, Stedman and colleagues claimed that the content of the picture cannot be revealed by only examining the photo. Each picture was supported by the description provided during an interview (Stedman et al., 2004).

Stedman and his colleagues noted that such modifications provide a range of advantages for studying place attachment: i) provision of multilayered meanings simultaneously due to the fact that photographs may show multiply things; ii) photographs could be a reference point/focus of an interview as well make interviews contextually richer by combining social and cultural or ecological phenomena; iii) photographs reveal aspects that cannot be identified in a survey research because each photo is placed in a specific locale that provides more setting specificity (Stedman et al., 2004).

In this research project, 16 residents from Vienna and Madrid were asked to take 10 photos each, of things that “mean the most” to them, that they feel “the most attached”, or they will “miss most if they were to move away”. Participants were selected according to the following criteria: age, gender and as for reasons provided earlier on such as length of residence and proximity of participant’s home to an urban river. Snowball sampling based on previous contacts was combined with “cold contacts” (people were approached in public settings like National Library). The intention was not to reflect the social structure of both cities but to understand the views presented among people with different length of residence and proximity of participant’s home to urban rivers, within one social category. All interviews were conducted in May (2019) in Madrid and July (2019) in Vienna.

		Danube canal, Vienna (n=8)	Manzanares river, Madrid (n=8)
Gender	Male	5	4
	Female	3	4
Age	18-25	1	2
	26-35	6	4
	36-46	1	2
Length of residence in Vienna / Madrid	less than 1 year (a)	4	4
	1-5 years (b)	2	0
	5-10 years (c)	1	1
	more than 10 years (d)	1	3
The proximity of participant's home to an urban river	Group 1	4	5
	Group 2	4	3

Table 1 | Sample Characteristics, Manzanares river and Danube canal (Source: Author)

Participants were informed about study areas and received open instructions about what to photograph to minimize the influence on the content of the photos. To ensure that the photos taken are well-thought and to avoid spontaneous photos participants were recommended to make a list of places/ objects /practices that they want to photograph in advance. Participants could take photos at any time. When photos were taken, follow-up interviews were conducted. The average time of interviews was 30 minutes. After a little introduction, participants were asked to describe the content of each photo one by one, particularly, what they wanted to represent on the photo and why. After each interview, all locations where photos were taken were marked on the map. Each interview was audio-recorded with the permission of the participants. More detailed information about the participants could be viewed at Appendix 2.

2.4.2 ANALYTICAL FRAMEWORK

A three-pole four-dimensional conceptual model of place attachment developed by Raymond and colleagues provided the foundation for this research (Raymond et al., 2010). Originally, this conceptual model was applied to a quantitative study of place attachment in the Adelaide and Mount Lofty Ranges region implying a likert-scale survey. A set of place attachment statements that was extracted from prior studies with high credibility. However, in this research, a range of statements that were used by

Raymond et al. (2010) serves as a framework for qualitative analysis.

The personal dimension of place attachment (place identity and place dependence) was analyzed by applying 3 statements proposed by Williams and colleagues (Williams & Vaske, 2003). The natural dimension of place attachment was analyzed by using statements developed by Raymond and colleagues (Raymond et al., 2010). Due to a little relevance of the statements of the social dimension of place attachment used by Raymond and colleagues to this research, social dimension was analyzed by using 3 statements developed by Kyle and colleagues for a study of a place attachment to Appalachian Trail in America (Kyle et al., 2005).

Dimension	Factor	Item label
Personal	Place identity	This place means a lot to me
		I am very attached to this place
	Place dependence	I would not substitute any other places for doing the type of things I do at this place
Social	Social bonding	I have a lot of fond memories about this place
		The friendship developed by doing various activities strongly connects me to the place
		I will (do) bring my family members (friends) to this place
Natural	Nature bonding	When I spend time at this place I feel a deep feeling of oneness with the natural environment
		I would feel less attached to this place if the native plants and animals (birds) that live here disappeared
		I am very attached to the natural environment at this place

Table 2 | Survey statements for analyzing place attachment (Source: Raymond et al. 2010; Kyle et al. 2005)

2.4.3 SPATIAL AND VISUAL ANALYSIS

Spatial analysis:

Investigating the meanings attributed to the urban rivers and attachment to them by applying a photo-based method provides a possibility to translate photos spatially. The specific locale of the photos allows to understand various dimensions of particular physical setting and realize how individual and collective experiences as well as meanings are placed in those physical settings. After each interview, photos that were taken by participants were placed on the maps. A spatial analysis seeks to find the

patterns of the spatial distribution of spots where photos were taken. As a result, it could shed some light on the general perception of the case study areas and appropriation of the space in these areas.

Visual analysis:

Considering the fact that Visitor Employed Photography implies interconnection between the photos and post photo walks interviews each photo already contains visual information that could be analysed as independent and integral data. Keeping in mind that behind each photo stand a set of symbolic experiences and meanings, photos might be analysed separately from the interviews by focusing only on their content (Schoepfer, 2014; Collier et al., 1967). A visual analysis of the content of the photos intent to investigate a subject matter and formal qualities of photos. This research aims to define the typologies of the photo content and relate them to the main subject of this research - urban rivers, investigating to what extent urban rivers are represented on the photos as well as analyzing the presence of other photo content typologies.

CHAPTER 3

CASE STUDIES

This chapter presents two case studies based on two locations the Manzanares river (Madrid) and the Danube canal (Vienna). Despite the fact that both cases have been given different historical and geographical importance in the context of the development of Madrid and Vienna, they both went through similar patterns of the engineering modifications and regulations during past centuries. Nowadays, guided by the EU water directives and agendas, the Manzanares river and the Danube canal have represented different typologies of appropriation of waterfront spaces and possible experiences of waterbodies. Although, the Manzanares river and the Danube canal have different morphological characteristics and physical qualities, selected for this research case studies on the Manzanares river and the Danube canal have a similar length (around 4 km) and similar typology of the locality within an urban fabric.

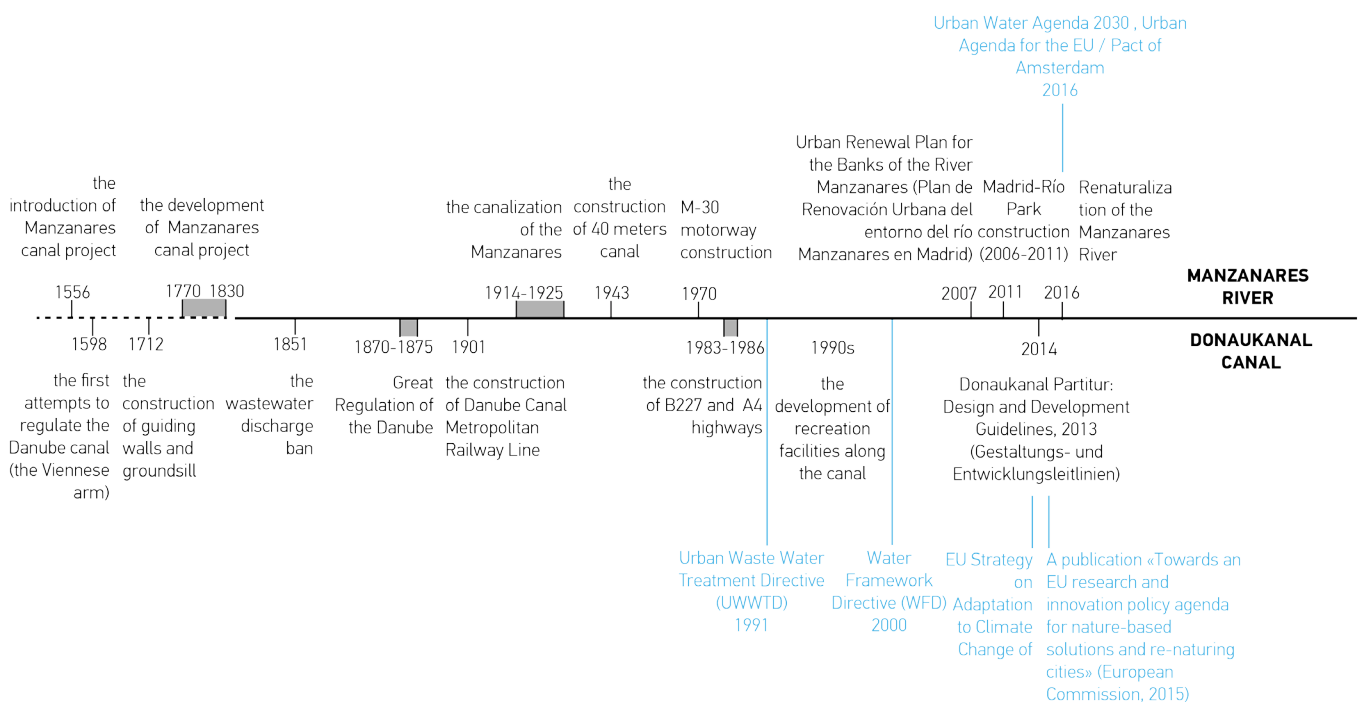


Figure 3 | A timeline of major transformations of the Manzanares river and the Danube canal, and main EU directives related to the water (Source: Author)

3.1 MADRID - THE MANZANARES RIVER



Figure 4 | Map of Madrid (Source: Author)

The Manzanares river is a 92-kilometre long river (also known as Guadarrama before the 17th century) that is located in the Iberian Peninsula in the Community of Madrid. It flows from the slopes of Sierra de Guadarrama, at an altitude of 2063 meters, to the Jarama river, crossing Madrid from the north to the southeast. A small scale and low water level with frequent dry periods of the Manzanares river often have stood as a cause for mockery that shaped the neglectful attitude towards the river among residents (Martí et al., 2018). Although, the Manzanares has significantly influenced the history and urban structure of Madrid as well as provided Madrid with drinking water by filling Santillana reservoir. After centuries of various modification and regulations such as channelization, dykes and highways construction, the Manzanares river was rehabilitated and rediscovered as an area for leisure and recreation. Nowadays, the Manzanares river is a part of a grand Madrid Rio park that is considered as a natural corridor that runs through Madrid.

An emergence of Madrid is tracing back to the 9th century when a Muslim fortress was established on the bank of the Manzanares river. Since then, the

Manzanares has affected the development of Madrid. The first attempts to regulate the Manzanares had an expansionist character. Under the rule of Felipe II in 1556, a project of “the Manzanares canal” (“Canal del Manzanares”) was designed. It implied the creation of the 20-kilometre long navigable waterway along the Manzanares river in the municipality of Vaciamadrid that, through a network of tributaries, would provide a waterway to the Atlantic Ocean and connect Madrid with Lisbon. However, the cost of the project was very high therefore construction was not started. Two centuries later, Carlos III with the financial support of the Crown started the excavation works that were lately continued by King Fernando VII. The first part of the canal and watergates was realized in the river section between the Toledo Bridge and the lock near the Galiana Royal Cattle Route. The canal was 3 meters high and 14 meters wide (Gómez et al., 2018).

Nevertheless, the Manzanares canal project was stopped because of the shortage of funds and development of cheaper alternatives for transportation such as the Madrid-Aranjuez railway. What is more, some of the most prominent features of the Manzanares river in the 19th century were washhouses. According to some sources, more than 5000 laundries were located on the waterfront (Figure 5).

The Manzanares river served as a source of inspiration for many artists and was widely represented in the art. For example, one of the prominent Spanish painters Francisco de Goya captured the Manzanares on the paintings *La Pradera de San Isidro*, *Baile a Orillas del Manzanares*



Figure 5 | A photo by Baldomer Gili Roig “The washers of the Manzanares river (Madrid)” (1915) (Source: Museu d’Art Jaume Morera/Wikipedia)



Figure 6 | A painting by Francisco Goya featuring the Manzanares River (Source: Museo del Prado/Wikipedia)



Figure 7 | A view on the Manzanares from Toledo Bridge before the tunnelization of M-30 (Source: Madrid Calle 30)

and La Merienda (Figure 6). At the beginning of 20th century, the Manzanares river act (Ley Básica del Manzanares), that intended to reduce floodplain areas and instal sewage systems parallel to the river, proposed the channelization of the Manzanares. However, the act was only partly implemented until 1925. Rapid urban development of the areas adjoining the railways was characterised by intensive construction of industrial and residential facilities that negatively influenced the quality of the water because of the contaminations. In late 1920, a creation of the green belt along the river was broadly discussed, but it remained only as an idea (Blas, 2012). In 1931, La Isla private swimming pool that had a shape of a 300 meters longship was located on the little island near the King's Bridge. Not only did the pool diversify the leisure activities of residents of Madrid, but also ascribed a port atmosphere to Madrid. However, during the Civil War Madrid's section of the Manzanares river was a place of heavy battles and the pool was almost destroyed. The channelization works were continued in 1943 after the end of the Civil War. As a result, the Manzanares river was limited between 4 meters high concrete walls in the width of 40 meters (Gómez et al., 2018). In 1946, the General Urban Plan of Madrid suggested the construction of the first ring road on both sides of the Manzanares river. Finished in 1970, M-30 highway completely isolated and detached the river from the city landscape and cut the city into two (Martí et al., 2018). Additionally, it generated a huge amount of traffic that increased noise and air pollution (Figure 7).



Figure 8 | Waterfront of the Manzanares river (Source: Author)



Figure 9 | Vegetation of the Manzanares River (Source: Author)

The Urban Renewal Plan for the Banks of the River Manzanares (Plan de Renovación Urbana del entorno del río Manzanares en Madrid, 2003) intended to rehabilitate the river and integrate it into new urban scenery. Launched in 2008, Madrid Río project aimed to tunnelize the highway on both sides of the river to create an 8-meters long natural corridor with various recreational facilities. The construction works were conducted in a period from 2006 till 2011. Also, the project received lots of criticism regarding the transparency and the high cost, it positively changed the relationships between the Manzanares river and residences of Madrid and recovered

social and environmental functions of the river (Franchini & Arana, 2011). Even though the Madrid Rio project recovered the river, it hardly touched upon the river ecosystem. In 2016, the Renaturalization of the Manzanares River was introduced as a way to return natural life to the river and modify the artificial image of the riverbed. Due to the lift of floodgates at the Madrid section of the river and special types of vegetation many species of birds and fish inhabited the river. Nowadays, Madrid Rio park has positively changed the riverfront facade of Madrid (Martí et. al., 2018). It is an integrated part of the natural landscape of the city that offers various leisure facilities and increases environmental quality in the area. Various city blogs promote Madrid Rio as one of the best places in the city for sport and a weekend stroll. In the social media Madrid Rio is often labelled as “a favourite place” and “a place with a great view”. One of the participatory budgets 2017 projects suggested reconstructing popular in 20th century the La Isla pool on the Manzanares river. Nowadays, there are some intentions to extend the Madrid Rio Park.

Over the centuries the relationships between the Manzanares river and the city have had an exploitative character. A neglectful attitude towards the river due to its low flow was enhanced by a range of engineering modifications that made the river invisible and inaccessible. As a result, the river completely lost its natural image and ecosystem. Only at the beginning of 2000, the environmental and social value of the Manzanares became a framework for further transformations of the river. Madrid Rio project aimed to rediscover the river and create an ecological corridor in the city. However, concerning the Manzanares, Madrid Rio mostly focused on the physical accessibility of the

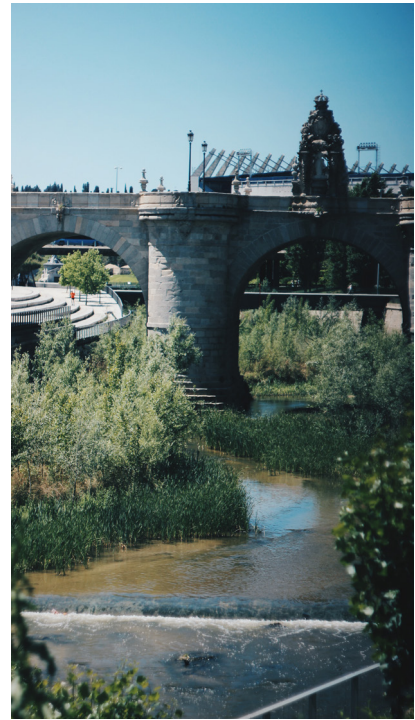


Figure 10 | A view on Puente de Toledo (Source: Author)

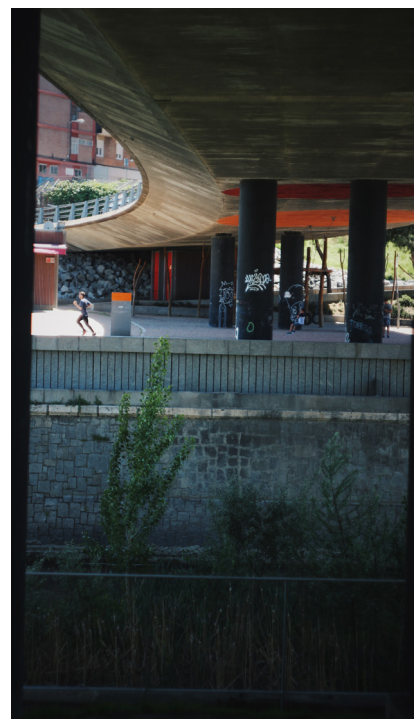


Figure 11 | A view on the Manzanares River from Los Pino (Source: Author)

river but not on its environmental state. The Renaturalization project significantly improved the biodiversity of the Manzanares but it is still an ongoing process. Nowadays, Madrid Rio is one of the most popular places for recreation and leisure activities in the city. This study focuses on the part of the Manzanares river that starts before Puente del Rey and ends at Puente Prague. The length of the selected site is almost 4km. It covers an area of Madrid Rio park and many recreational facilities.

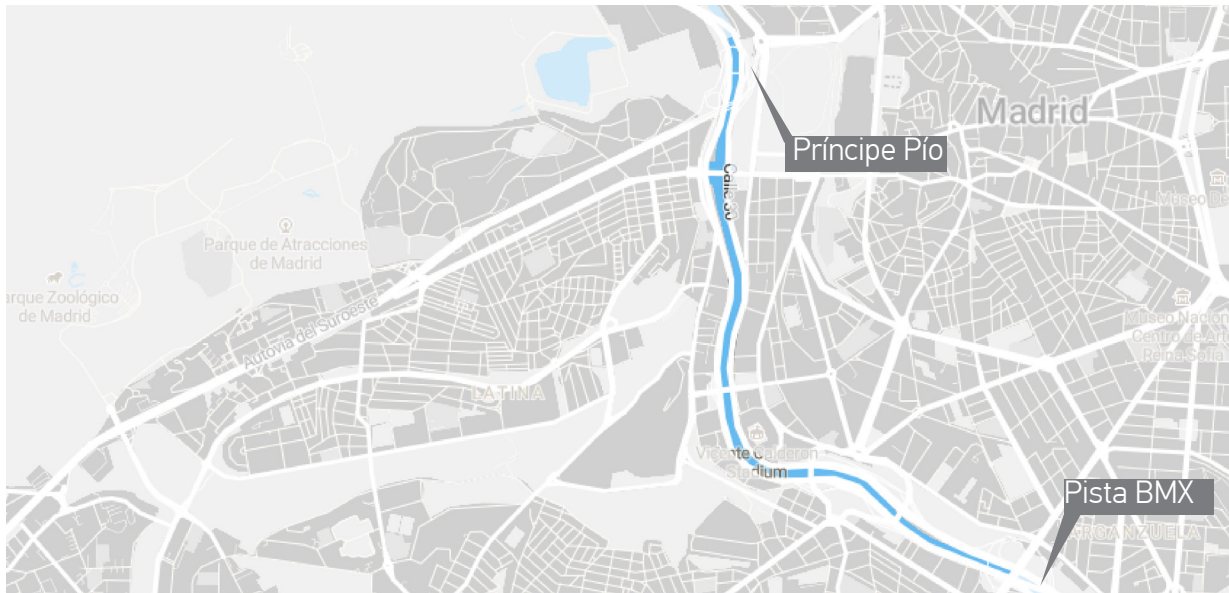


Figure 12 | Map of the case study in Madrid (Source: Author)

3.2 VIENNA - THE DANUBE CANAL

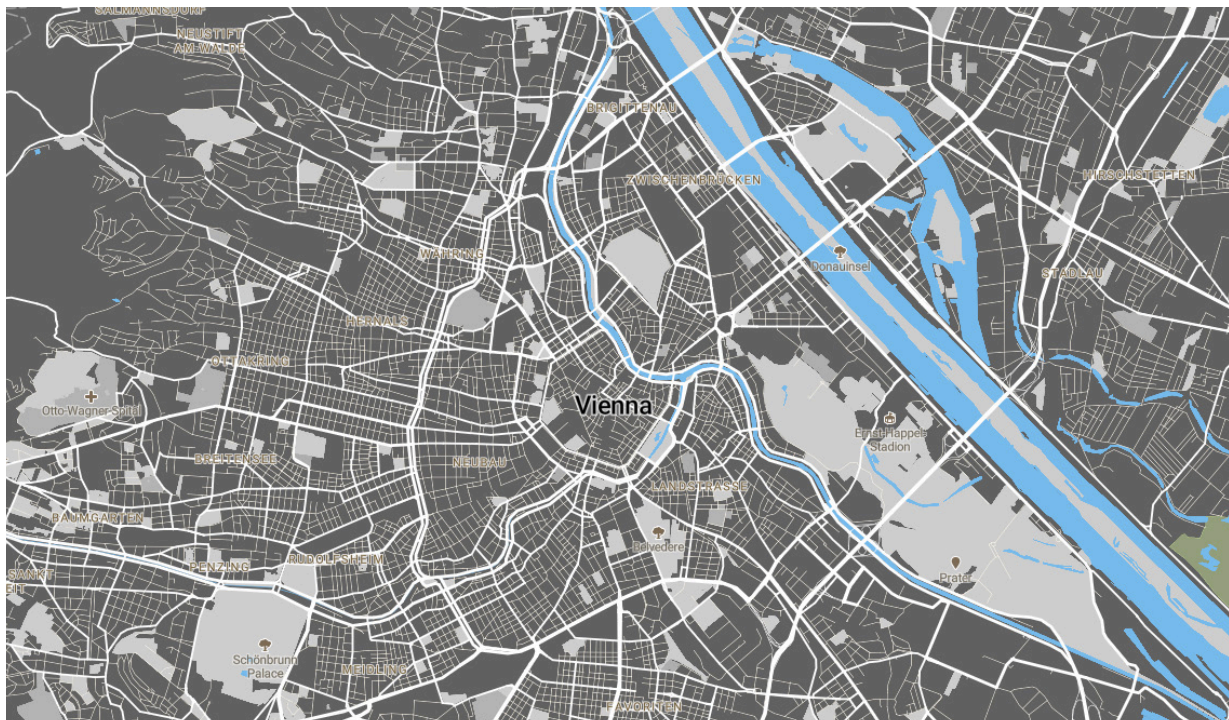


Figure 13 | Map of Vienna (Source: Author)

The Danube canal, also known as the Viennese Arm or the Wien River, is the biggest side arm of the Danube river that borders an old city centre. It branches out at the border of 20th (Brigittenau) and 19th (Döbling) districts, right before the Nussdorf Weir and Lock (Nussdorf Wehr-und Schleusenanlage) and merges the main water body on the border of the 2nd to the 11th district, stretching on 17,3 km. Despite the name “Donaukanal” it was not always enclosed in the concrete. For decades, the Danube canal served as an important transportation axis because a majority of the ships entered Vienna through the Danube canal. However, the development of transportation means, particularly steamships and railways, changed the role of the canal as a city gateway. The Danube canal was represented on many artworks such as Carl’s Schützlt painting «Blick auf die Leopoldstadt von der Gonzagabastion» in 1785. At the end of the 20th century, the Danube canal was transformed into a leisure and recreational area.

The Danube is one of the largest rivers in Europe (2,850 km long) that flows from Germany to the Black Sea crossing 10 countries. The Viennese Danube is hugely influenced by variable alpine flows with a high proportion of sediment load. The Danube played a central role in the development of Vienna. Initially, Viennese Danube was a few kilometre width network watercourses that were constantly fluctuating. For example, in 1529, the distance between the Viennese arm and the main branch was around 1.6 km. However, in 1570, this distance diminished to 1.3 km by pulling the main branch towards the old city centre (Hohensinner et al., 2013).

During decades, the Danube was used for transportation and trade as well as provided the city with fish and allocated driving mills. The structure of the city was highly dependent on the constantly changing riverscape that made Vienna constantly suffer from floods and limited its growth. The Danube Regulation Commission (DRC), that was established by Franz Josef in 1850, aimed to develop a range of flood protection measures and improve transportation routes, as well as design a network of bridges over the Danube (Haidvogel, 2012). Increasing industrialisation forced a need for new areas that could accommodate the rising population of the capital of the Austrian-Hungarian empire. Therefore, to address this issue and provide land for residential and industrial constructions, DRC developed ‘Great Regulation’ plan for the Danube that proposed to create a new artificial riverbed for the Danube. In 1875, After 5 years of excavation works, the main body of the Danube was confined to three hundred meters canal that made it completely isolated from the floodplains (Holzer et al., 2005). This intervention allowed a raise of the Viennese population from 175,000 to 400.000

forbid direct wastewater discharge to the canal. A few years later, the First Steamship Company - the largest shipping company in Europe, founded its headquarter on the Danube canal. Towards the end of 19th century, the main transportation axe was shifted to the newly escalated Danube waterbody because the scale of Danube canal was too small for modern steamships (Gierlinger et al., 2013). Nevertheless, the canal is still used for transportation as a cruise ship “Twin City Liner” stops at a boat station Wien City that was opened in 2010.

Gradually, the canal was transformed from a busy water transportation axis to a moto-and rail-transport axis. Since 1901, the Vienna metropolitan railway extended its network and added Danube Canal Line (currently a part of U4 subway line) that runs along the canal. In 1971, the Motorway plan suggested the construction of the highway along the canal. One year later, the Motorway plan was rejected due to the negative influence of the plan on the recreational value of the Danube canal. Although, some parts of that plan were realized, such as highways B227 (“Donaukanal Straße B227”) in 1983 and East Highway A4 (“Ost Autobahn”) in 1986.

After the implementation of ‘Great Regulation’ project and construction of the Nußdorf Weir and Lock complex (1899), the water level in the canal was easily regulated, therefore it created new possibilities for functional use of the canal. At the end of the 19th century, the first open bath (Strombäder) was established on the canal. To ensure the navigability, the bath was floated and had a narrow shape. It had such a success that in 1905 two more bathes were opened in the city (Seledec, 1987). Since 1988 the Danube canal has hosted a weekly flea market “K & K Markt am Donaukanal” in the summertime. In 1989, the floating event platform “Showboat” was opened on the canal. Additionally, Agora “Sommerzentrum alternativer Kommunikationsanliegen» moved to the left bank of the Danube canal. At the end of the 1990s / beginning of 2000, more social and commercial activities moved to the waterfronts of the Danube canal



Figure 15 | A view on the Danube canal from Augartenbrücke (Source: Author)



Figure 16 | A view on the Danube canal from Community Gardens (Source: Author)

(e.g. a music club «Flex» (1995), a restaurant and bath «Badeschiff» (2000), bars «Strandbar Herrmann» (2005) and «Tel Aviv Beach» 2009).

Nowadays, the Danube canal is one of the most popular outdoor public places in Vienna with a huge legal graffiti zone. Festivals such as Donaukanaltreiben annually host thousands of people on the canal. According to the tourist platforms “TripAdvisor”, “Vienna. Now. Forever”, “The Culture Trip”, the Danube canal is an urban oasis during the summer. In the social media a hashtag #Donaukanal often comes together with comments “my favourite place”, “like this place”, “very nice view”, “relaxing”, “beautiful”.

After intense debates on the development agenda for the Danube canal that was provoked by massive privatization and commercialization of the canal riverfront, the Vienna Municipal Department 19 – Architecture and Urban Design presented Donaukanal Partitur: Regulation and Development Guidelines for the Viennese Donaukanal (2014). This document implied a set of regulatory and developmental planning tools to preserve existing qualities of the space and provide possibilities for consumption-free leisure and recreation activities.

The Danube canal has always played an important role in the life of Vienna. However, engineering interventions and regulations of 18th and 19th centuries destroyed the natural look of the channel and transformed it into the canal with a completely artificial character. The attempts to promote the Danube canal as a place for recreation at the end of the 19th century were obstructed by two World `Wars that significantly destroyed Vienna, specifically areas along the canal. An extension of Vienna metropolitan railway in 1901 and construction of highways B 227 in 1983 and East Highway A4 in 1986, contributed to the isolation and low accessibility of the canal. The recreational value of the canal was

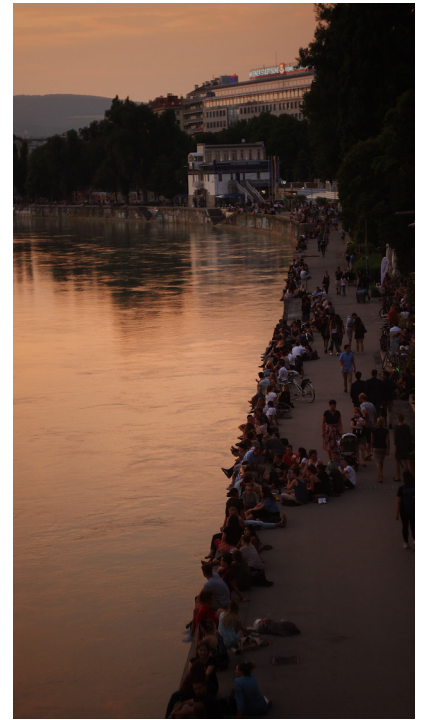


Figure 17 | A view on the Danube canal from Salztorbrücke (Source: Author)



Figure 18 | A view on the Danube canal from Adria cafe (Source: Author)

rediscovered in the late 1970s. Since 2000, the canal has been one of the central parts of a social scene of the city. Nowadays, the city of Vienna aims to protect open and consumption-free recreational spaces on the waterfront and increase the use of the waterfront of the canal. This study focuses on the part of the Danube canal that starts right after Gürtelbrücke and ends before Franzensbrücke. The length of the selected site is almost 4km and it covers the central parts of the city with many recreational facilities.



Figure 19 | Map of the case study in Vienna (Source: Author)

CHAPTER 4

ANALYSIS AND RESULTS

The Manzanares river and the Danube canal serve as places that unite people of different ages, genders, nationalities and social backgrounds. No longer rivers are used to satisfy the infrastructural needs, however, Donau canal is still used for transportation. Waterfronts are used in many ways such as transit areas inviting walkers, joggers, cyclists; recreational areas with massive green zones to sunbath, relax, have a nap or a picnic; areas for socialization activities with consumption free zones; areas with sports and kids facilities; areas that are pet friendly and promote sustainable living; areas to escape from the bustle of urban life. Everyday interaction with urban rivers and use of urban waterfronts ascribe a range of meanings and affect attachment to urban water bodies. All photos that were taken by participants and interviews could be viewed in Appendix 1 and Appendix 2.

4.1 VISUAL AND ANALYSIS

4.1.1 THE MANZANARES RIVER

In total, 75 photos of the Manzanares river were taken. Two participants of the research provided less than 10 photos as they found some difficulties to present 10 places/objects/practices that they feel attached. The distinguished typologies of the photo content were following: the Manzanares river was represented as the main object of the photo in 5 photos out of 75 (a); on 11 photos Manzanares river was captured as a part of the landscape or a background (b); on 6 photos some traces of water such as fountains or man-made ponds were represented (c); 12 photos portrayed bridges or elements of bridges (d); 10 photos captured architectural forms (e); on 21 photos of green areas or elements of greenery were represented (vegetation of the river is not included) (f); 4 photos show the presence of dogs (e); on 6 photos ways or paths were captured (g).



a) Figure 20 | Photos that captured the Manzanares river as the main object of the photo. Photos #21, 7, 16, 52 (Source: Participants)



b) Figure 21 | Photos that captured the Manzanares as a part of the landscape or background. Photos #2,6,25,33 (Source: Participants)



c) Figure 22 | Photos that captured some traces of water such as fountains or man-made ponds. Photos #23,19,69,73 (Source: Participants)



d) Figure 23 | Photos that captured bridges or elements of bridges. Photos #72,11,5,37
(Source: Participants)



e) Figure 24 | Photos that captured green areas. Photos #40,10,59,66 (Source: Participants)



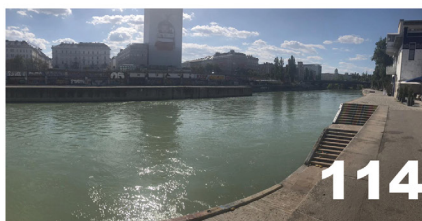
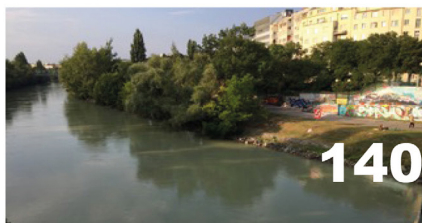
f) Figure 25 | Photos that captured the presence of dogs. Photos #20,14,67 (Source: Participants)



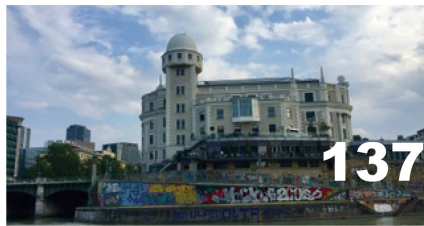
g)Figure 26 | Photos that captured ways or paths. Photos #29,44,15 (Source: Participants)

4.1.2 THE DANUBE CANAL

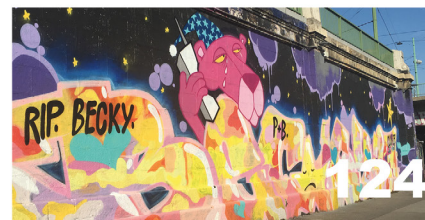
In total, 80 photos of the Danube canal were presented by participants. Each participants provided 10 photos. None of the photos captured the Danube canal as the main object of the photo. The following typologies of the photo content are: on 34 photos the Danube canal was represented as a part of the landscape or a background (h); 22 photos captured architectural forms or recreational facilities such as bars and restaurants (i); 20 photos illustrated graffiti or artworks along the Danube canal (j); on 16 photos edges of the canal or stairs to the water were captured (k); on 10 photos of green areas or elements of greenery were represented (including urban gardens) (l); 5 photos are related to transportation infrastructure (m); 3 photos represented bridges or elements of bridges (n); some participants captured the same places and artworks on the photos.



h)Figure 27 | Photos that captured the Danube canal as a part of the landscape or background. Photos #140,114,82,95 (Source: Participants)



i)Figure 28 | Photos that captured architectural forms or recreational facilities such as bars and restaurants. Photos #137,132,122,108 (Source: Participants)



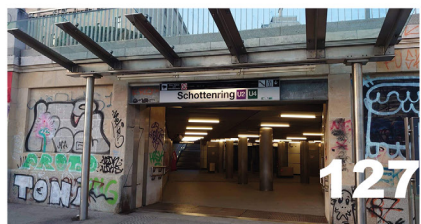
j)Figure 29 | Photos that captured graffiti or artworks along the Danube canal. Photos #135,91,85,124 (Source: Participants)



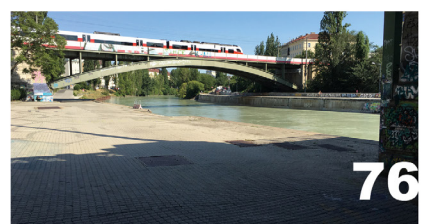
k)Figure 30 | Photos that captured edges of the canal or stairs to the water. Photos #88,102,143 (Source: Participants)



l)Figure 31 | Photos that captured green areas or elements of greenery including urban gardens. Photos #103,121,138,111(Source: Participants)



m)Figure 32 | Photos that captured transportation infrastructure. Photos #105,115,127,86 (Source: Participants)



n)Figure 33 | Photos that captured bridges or elements of bridges. Photos #106,119,76 (Source: Participants)

4.2 SPATIAL ANALYSIS

The spatial distribution of photographed places shows some patterns of the congregation. In the case of the Manzanares river, the majority of the photos were taken close to the vast green areas on the waterfront and to the bridges or pedestrian nodes. Although, a part of the study area, close to Puente de Segovia, that allows access to man-made ponds and fountains was highly represented in the photos. This could illustrate the appreciation of the visual, auditory and tactile experiences of the water. Considerable parts of the study area in Madrid were not represented on the photos, particularly the narrow transit areas with few recreational facilities. In the case of the Danube canal, almost all photos were taken in the area that starts at Rossauerbrücke and ends at Franzensbrücke, while almost half of the study area was not captured. The part of the Danube canal, that was greatly represented on the photos, could be characterised by the significant difference between the altitude level of the street level and the Danube canal, massive concrete surfaces, barrier-less concrete waterfront edge, low presence of the greenery as well as a presence of the conceptual bars and restaurants. By contrast, the area that was not captured on the photos could be described as a green area with a big share of recreational and sports facilities, presence of the bars, significant green areas and barrier-less waterfront with intense vegetation. It shows that the green areas along the canal do not particularly influence the attachment by itself.

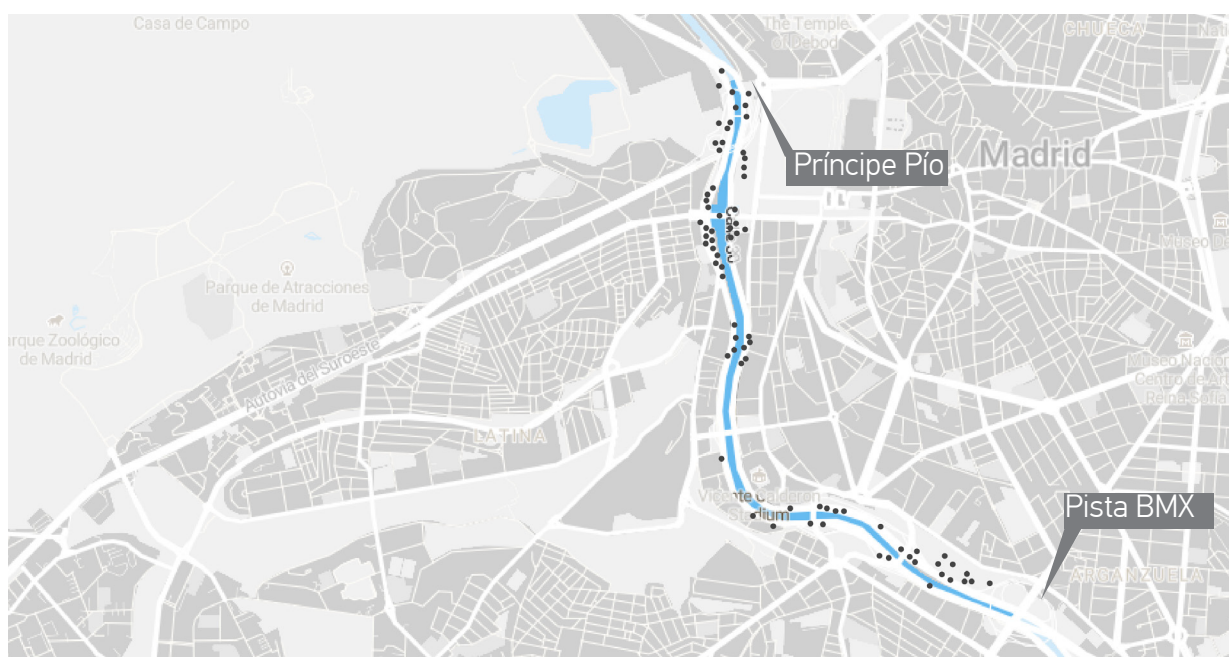


Figure 34 | Map of photographed places at the Manzanares river (Source: Author)

place towards which individuals have emotional bonding. Some participants identify themselves with the river and claimed that visiting this place says a lot about their personalities.

“I think it [Manzanares river] means a lot to me as a kind of space. I feel like it is my space in the city” (M3). It was said that spending time near the Manzanares river helps to deal with everyday stress and organize thoughts. Having a river running through the city provides an opportunity to connect to nature in the urban landscape, however, only a few participants indicated attachment to the river. For many participants river and bridges have a symbolic meaning dividing the city into two - “my part of the city” and “the city centre”. One participant explained it as: “They [bridges] are like connecting my part of the city...where I feel like homish, close to home...with the city centre. And as soon as I cross the bridge for me it is like more being in the city centre” (M2).

The functionality of the Manzanares waterfront contributed to the attachment towards the river. Some participants photographed activities that take place on the waterfront. Firstly, the river is considered as a transit axis that provides a possibility for free and fast movement along the river avoiding the traffic and minimizing the number of traffic lights. This was related especially to the western bank of Manzanares that is actively used by joggers, walkers, cyclists and other riders (Photo #15). The proximity to the water provides a special microclimate that is very different from the city centre.

“The river is a very nice continues run and also it is usually cooler and fresher with the air of the water” (M3).

“...it is nice to walk [near the river]...[I walk there] just to get to the city, but often I walk there for the sake of walking” (M2).

Secondly, the vast variety of green areas allows different types of recreational activities that create a range of meanings that are related to the consumption of space. For example, some participants photographed places where they had a picnic or set on the grass to read a book or work with the laptop (Photos #3, 10, 14). In spite the presence of other parks like Caso de Campo, Caramuel Park and Campo del Moro Gardens in the close proximity, individuals tended to spend time in Madrid Rio due to the presence of the river.

“It is a kind of regular activities that you can do anywhere, in the park...but here there is something special because you are close to the water” (M8).

One of the participants photographed the spot close to the waterfront where he likes to take a nap. Many participants captured a view of Madrid from the waterfront

emphasizing that this is the most beautiful view of the city (Photos #18, 23). Thirdly, facilities such as Roc 30 Climbing wall, Campo Fútbol Madrid Río or La Riviera that are related to hobbies of individuals evoke an emotional connection to the waterfront. For instance, one of the participants photographed a climbing wall where he tried climbing for the first or second times in his life (Photo #71).

THE SOCIAL CONTEXT: Various activities that have involved others (friends or other people) on the waterfront of Manzanares bonded individuals to this place. Many of the photos were taken to represent the memories of deep talks, watching sunsets, sharing pizzas and having fun at a playground with friends at particular spots on Manzanares waterfront. One participant photographed the steps next to a man-made pond where she and her best friend lay on the steps in the sun, talking for a couple of hours (Photo #27). Another participant photographed a spot where he and his friends had farewell drinks at the end of the semester (Photo #75). Another photo represented a place where a participant practices skateboarding with her friends (Photo #55). Some indicated that Manzanares has such a strong meaning for them that they bring here friends and family members: “whenever my dad visited or my friends or my sister I always took them along the park here and along the river...” (M3).

Additionally, some participants mentioned that they experience an emotional connection to the people whom they regularly meet at the waterfront but do not know personally. For some participants, the significance of visiting the waterfront was dependent entirely on meeting friends who were either close, and/ or lived close to the waterfront.

THE NATURAL ENVIRONMENT CONTEXT: The natural environment context affects the connection of individuals to the non-human natural environment. It was emphasized that the river brings some freshness to the city and helps to retreat from the bustle of the city.

In spite of the fact that participants mentioned the importance of Manzanares to themselves, the river was hardly represented on the photos. Two participants photographed the vegetation of the river to show the vegetation as a unique feature of Manzanares that brings lots of greenery and wildlife to the city. “I find it really interesting because in most cities you have a river with water but here, actually, you have trees and vegetation” (M2). Species that depend on the vegetation in the river such as waterfowl birds and other feathered birds are considered as essential denizens of Manzanares river. A possibility to behold and interact with waterfowl birds (e.g. feeding) is highly

appreciated by visitors of the river. “There are always different types of ducks...I stop and I watch them. To me, it was a really nice part” (M3). The waterfront is a pet-friendly area. The presence of dogs was mentioned in many interviews and represented on photos to point that dogs are one of the distinctive features of the waterfront areas. It was explained that dogs accompanied them in their activities or would just approach them for a friendly greeting. Often this led to an interaction with their owners and a kind of socialization (Photos #20, 67). Some participants mentioned that certain flora on the waterfront evoked their childhood memories; a tree, the smell of which reminded them of their summer holidays spent with their parents and friends in the southern countries (Photos #1, 13). The types of vegetation on the waterfront and the river created a unique experience for many participants, therefore, the disappearance of some species and vegetation would negatively influence the attachment of individuals to the river. “If there were no original trees and greenery, of course, staying here would not be so nice. That is why it is very important for me to maintain the same natural level as it is now” (M5).

The sensorial experience of the river was considered as an important element that distinguishes Madrid Rio from other parks. A few participants photographed places where some could hear and touch the river to show how they value the opportunity to engage with nature. One photo captured the bridge with red horns that allows listening to the sound of the water. “...this is not just a river that flows through the city that you use. But I can stop and listen to the sound of the river and unite with it” (M1) (Photo #7). Many noticed that the Manzanares is barely audible, therefore the sound of fountains plays a key role in participants’ experience of being near the river as it substitutes the sound of the Manzanares. Another photo represented the only point on the waterfront where it is possible to touch the water: “...it is only part in the entire park [Madrid Rio] where you can get down close to the water along the whole river. Which I think is a little bit of the shame” (M3)(Photo #27). A lack of opportunities for interaction with the Manzanares was articulated in many interviews. One participant claimed: “it is a nice space, it creates a nice space, but you cannot swim in it” (M4). The insufficient amount of water in the Manzanares was rendered a negative feature in a few interviews, stating that the Manzanares is more like a stream but not a river. Some participants indicated that the presence of the river is hardly noticeable due to the low physical accessibility of the river, particularly the height of the canal walls and fences. It was mentioned that the river is not visible from the pedestrian paths, and in order to see the river individuals have to stay close to the fence. “I do not feel that a river particularly is super well

integrated. Obviously, it is there, and you know that this is there but...I think it is not like you are particularly conscious of the water for some reasons..." (M6).

The duration of residence as criteria was not as crucial in the development of the attachment to the Manzanares as the amount of time spent near the river. The proximity of individuals' homes to the Manzanares did not significantly influence the attachment to the river. However, the participants who lived far from the Manzanares experienced some difficulties in providing ten photos. Two of the participants submitted less than ten photos. The participants who spent most of the time near the river, more often included the Manzanares to the photos as the main object or as a part of the landscape. The photos more often related to personal and natural contexts rather than a social context. Participants who spent less time near the river were more likely to photograph the places referring to the social context.

To sum up, personal and social contexts were more likely to serve as a ground for photos among all participants. While participants who spent the most time near the river tended to refer more to the natural context than other participants. The importance of the Manzanares river as a big natural area in the middle of the city was articulated in many interviews, and yet, the lack of possibilities to interact with the river was considered as a significant disadvantage. Consequently, only a few photos represented the Manzanares as the main object of the photos. Additionally, in many cases, the Manzanares was considered as an integral part of the Madrid Rio park but not like an independent entity by itself.

4.3.1 THE DANUBE CANAL

THE INDIVIDUAL CONTEXT: For most of the participants the Danube canal stands as a meeting place with a particular natural character that is detached from the urban fabric. One participant defined the canal as a place where "you are a bit off and a bit away from everything, while you are in the middle and between everything" (V5). Many emphasized the uniqueness of the atmosphere of the canal towards which they feel an emotional attachment. The canal was described as a welcoming place, where everybody can be themselves. The presence of the water gives a calm and relaxing feeling and slows down the pace around. "Everything is slightly easier for me when I close to the water, or at least the vibe is more relaxing than sitting somewhere in the 1st district between the houses. I think I would really miss this place if it would be gone" (V7). In many interviews, a possessive pronoun "my" was used towards many elements

and dimensions of the canal. Some participants identify themselves with the canal and the importance of the time spent there. “There was certain me before this place and there is a certain me after this place” (V3).

The functional connection to the canal was illustrated in many photos. Participants related the photos either to activities or facilities as well as settings that are located on the waterfront. Firstly, many participants view the canal as a transit area that cuts the city into two and is isolated from the traffic, physically and aurally. “It is quicker for me to walk along the canal. The canal was not only a place to come and relax but also just a place I use to go through the city” (V2). Therefore, the canal is widely used for sports activities such as jogging and cycling. Metro and metro stations were pictured on a few photos indicating the canal as a transport axis (Photos # 105, 115). Secondly, the proximity to the water, due to barrier-less waterfront design and stairs that lead directly to the water, provides a possibility for the various appropriation of the waterfront and the experience of the canal. For example, one participant photographed the steps that lead to the water, he said: “It is a nice place to come and read...where I am living we do not have a living room. Basically, it fulfils that purpose” (V2) (Photo #87). All participants captured a waterfront edge or stairs as places where they would spend many hours over good conversations with their friends (Photos # 81, 102). Some participants mentioned that the canal is their favourite place to spend summer evenings. No obligation to consume, informality and the flexibility of the place were mentioned as important characteristics of the canal. One participant described visiting the canal area as “it is like going to a big bar outside” (V1). The proximity to the water was considered as a crucial element in the atmosphere of the place. Additionally, during summertime, the water cools the temperature of the area. Thirdly, many photos represented recreational facilities like bars and restaurants as the main objects (Photos # 89,100,128). A range of the conceptual bars and restaurants serves as landmarks and influences the connection to the waterfront. One of the restaurants on the waterfront was described as: “The whole atmosphere is nice because it is uncomplicated, a simple concept and you still have a good view and the canal” (V1). Fourth, for many, the canal was considered as a good spot to watch the sunset, for some, the skyline viewed from the canal was portrayed as a skyline of Vienna. Fifth, 20 photos captured graffiti and artworks along the canal. For many participants, the graffiti significantly contributed to the character of the place by bringing there life and street culture (Photos # 91, 101,107). One of the participants described the waterfront as “a gallery that is changing every one-two months” (V7).

Lastly, the canal stands as a place for improvisation and spontaneous activities. Many participants listed some memories of the spontaneous events, that took place at the canal, as ones that emotionally bond them to the canal. For example, some recalled the spontaneous rave and unprompted graffiti painting session, other mentioned improvised music concert under the bridge and unplanned cooking session. One participant referred to the canal as an area “to have an adventure” (V6). The diversity of users and activities that take place on the canal was articulated in many interviews. This creates opportunities for social interactions that are not common. For example, a participant photographed the place where he spoke and played cards with a homeless man (Photo #104). Sometimes participants would just come to the canal to watch other people. “...we sit somewhere and just watch people. I really like it because you see all kinds of different people: young people, old people, you see people doing sports, you see super drunk people, you see people trying to be super fancy but actually, they are not fancy. This is actually very funny. And I just really like to observe people around here because you can see so many different people.” (V7) .

THE SOCIAL CONTEXT: In spite that the canal provides possibilities for individual activities, all participants indicated that a canal is a place for socializing and interacting with others. Participants indicated that they feel attached to the canal due to the memories of the experiences they shared with other people there. Lots of photos represented the places where participants had deep conversations, celebrated birthdays, enjoyed drinks and group gathering, had music jam sessions and attended festivals with friends. Many bring the family members and friends to the canal. One participant photographed the stretch of edge saying: “I set on so many parts of the edge and with so many people, that I could take 10 pictures of the edge from different angles that it would be my whole canal experience” (V3). Other participants, said that a concrete edge of the canal is a place where they spend many hours with their friends sitting and enjoying the scenery. Another participant photographed the stairs where he met many times with his classmates, friends, and acquaintance (Photo #89). Interestingly, the other four participants photographed the same stairs, indicating that this is the place where they have spent many moments with their friends (Photos #82,97,133,143). One participant said that only new friends in Vienna he made on the canal. “I have not had many opportunities to meet people in Vienna outside my class, but actually all Viennese friends that I made I met here” (V2). In some interviews, participants pointed out the particular friendliness of the people at the canal that is contacting a more reserved way

of behaviour of Viennese people. This is especially noticeable during different events and festivals such as Donaukanaltreiben.

THE NATURAL CONTEXT: The non-human environment barely stood as an element towards which individuals developed attachment in the case of the Danube Canal. This was explained in the interviews and reflected on the photos. None of the photos represented the canal as the main object of the photo. However, on 34 photos the canal was a part of the landscape. Despite the presence of the canal was considered by many as a piece of nature in the city the artificiality of the canal banks negatively influence such attitude. Many highlighted how urban rivers positively influence their senses and well-being. One noted: “I like being at the water and I think we all do. Because I think it breaks this very concrete image where it is only buildings and cement...” (V4). Another participant explained: “I just find it very calming just to look at the water and here waves. I think it is hard to explain the connection to the water. I just always like water” (V6). The presence of the water body in the urban landscape plays an important role in city preferences and improves the quality of life. One of the participants said that she cannot imagine living in the city without an urban river, she claimed: “I would not feel comfortable. I would not live in a city where there is no river, at least a small one...I think it adds so much quality to life when you have water nearby” (V4). In spite of the visual accessibility and barrierless design of the waterfront, some participants noted that there are not many possibilities to interact with the canal. One of the participants claimed: “I think any river is useless unless you can swim in it” (V5). Additionally, in many interviews, the question about the quality of the water in the canal was raised. Some participants were particularly worried about the colour of the water and the fact that some people throw garbage in the canal and use it as a toilet.

Some photos represented the green areas but they reflected more the activities that took place there. One participant photographed the green spot near the water where he read a book (Photo #99), another photographed the green bank of the river where he used to had after class drinks with his classmates (Photo #140). Only one participant stated that she is attached to the vegetation at the canal, she said: “This is the reason why I took a picture with lots of green scenery. This is very important. And this is attracting me to that area even if I do not go there often, but I think this is very important, and I like that about the Danube Canal. Greenery gives more nature and life” (V4). However, many photographed urban gardens as a little patch of the greenery in the area between Augartenbrücke and Aspernbrücke that brings more attention to sustainability

and the value of food in the urban landscape.

Interestingly, the Danube river was described as an integral part of the experience living in Vienna. All participants, regardless of the proximity and the length of the residence, mentioned that they are very attached to Old and New Danube. The Danube is considered as one of the best places for leisure and recreation. Most of the participants visit the Old and New Danube with a high frequency during the summertime. Some go there for a morning swim almost every day during summertime, others stay at the Danube the whole day studying or spending time with friends. For many participants, the Danube is a recreational area with special natural and social charisma.

All participants indicated the quite strong attachment to the canal, regardless of the length of residence and proximity of individual's homes. However, the participants, whose homes are located within 15 min walk to the canal, spent more time at the canal. But this did not influence significantly the nature of the attachment. Similarly to the participants whose homes were located more than 1,7 km from the canal, the canal was defined as a place for socializing and interacting, underpinning the social context.

To conclude, the social context served as a ground for most of the photos that were taken by participants regardless of the length of residence and proximity of individual's homes. In spite that the canal was partly represented on many photos, none of the photos represented the canal as the main object. Additionally, weak connections to the natural landscape were also confirmed during the interviews. The barrierless design of the waterfront allows various appropriation of the waterfront and the experience of the canal, however, some participant pointed out a lack of opportunities for the interaction with the canal. Many participants underlined the importance of the water bodies in the urban landscape and its contribution to the well-being, but still, the Danube Canal is considered more as "a big bar outside" or an open-air gallery rather than as a part of the natural environment.

CHAPTER 5

COMPARISON AND DISCUSSION

5.1 COMPARISON AND DISCUSSION

The objective of the study was to understand what are the meanings attributed to urban rivers by individuals and how these meanings affect different dimensions of place attachment. Two case studies, with distinct historical and geographical contexts but similar patterns of the engineering modifications and regulations over the past centuries, represented different typologies of current appropriation of waterfront spaces and possible experiences of urban waterbodies. The comparison is developed by following the research question within the framework of a three-pole and four-dimensional model of place attachment.

The meanings that were attributed to the Manzanares river and the Danube canal were based on the participants' subjective experiences of interaction with the water bodies and the waterfront areas. Confirming Stedman's (2003) idea about attachment to the meanings, participants photographed meaningful places/objects/activities towards which they feel attached. In both cases, meanings and attachment that were related to personal and social contexts dominated the meanings and attachment that was related to the natural environment context.

5.1.1 PLACE IDENTITY

An interaction between self and the Manzanares river and the Danube canal was grounded on conscious and unconscious ideas, values and feelings of participants. In both cases, water bodies and waterfronts were considered as places that are detached from the city bustle and serve personal as a refuge. Participants indicated that the presence of urban water bodies in the urban landscape positively contributes to their well-being, quality of life, emotional and cognitive restoration as well as relaxation and

reflection on personal matters. Thus these findings confirmed the theses of environmental psychology that were described above (Rollero & De Piccoli, 2010; Harris et al., 1995; Hartig et al., 2001; Korpela, et al., 2001, Brown et al., 2003). The Manzanares river was more often perceived as a natural space within the urban fabric, while the Danube canal was considered as a meeting place with a special atmosphere. The possessive pronouns “my” were broadly used towards different characteristics of the Manzanares river and the Danube canal. In both cases, participants tended to identify themselves with the waterbodies. Nevertheless, participants from Vienna noticed that visiting the canal says a lot about their personalities, while at the Manzanares it was not a case. This could be described with the fact that the Danube canal is more popular among particular social groups, especially at the certain hours of the day, whereas a profile of the Manzanares river visitors is more heterogeneous. In some cases in Madrid and Vienna, the proximity of individuals’ homes to the waterbodies positively influenced the attachment. However, participants who spent the most time near the water bodies showed stronger attachment regardless the length of residence. This reflects both the idea of Relph (1976) who suggested that people who spent most of the time in a place have a stronger attachment and Tuan’s (1997) statement that dramatic landscapes and intense experiences could drive the rapid formation of place attachment.

5.1.2 PLACE DEPENDENCE

The continuous relationships with urban rivers were based on the functional value of the river landscape to provide conditions for specific aims or preferred activities of participants. In both cases, participants indicated attachment to the water bodies because of the possibility for a free and fast movement along the river avoiding the traffic and enjoying the presence of the water. Excessive areas for recreation near the Manzanares river and the Danube canal provided certain recreational quality to support leisure activities. Particularly, green areas and the presence of the water in the case of Madrid as well as the accessibility to the water and the waterfront on the Danube canal created the special experience and evoke unique feelings of being there that distinguish these places and foster attachment towards them. Nevertheless, the green areas along the Danube canal do not particularly foster the attachment towards the canal, this could be explained by the fact that Vienna has a rich network of the green parks all around the city. On the contrary, the graffiti along the Danube canal was considered as an extraordinary aesthetical and meaningful symbolic urban culture experience toward

which participants develop attachment. In both cases, the presence of conceptual recreational facilities such as cafes and restaurants (the Danube canal) as well as sports and other facilities (the Manzanares river) on the waterfronts contributed to the development of attachment to the river landscape. In the case of Vienna, the waterfront location of the recreational facilities and the concepts of the recreational facilities mutually shaped connection to the place. An affirmation proposed by Williams & Vaske (2003) was illustrated in Madrid, where the proximity of individual's homes to the Manzanares river increased the functional attachment and frequency of visits. While in Vienna, the degree of functional attachment was not significantly influenced by the proximity factor.

5.1.3 SOCIAL BONDING

Meanings that were constructed through shared experiences and social relationships developed at the water bodies refer to the social dimension of place attachment. Similarly, to the research in the Appalachian Trail, social relationships developed at the Manzanares river and the Danube canal served as a connector between individuals and the environment (Kyle et al., 2005). In both cases, a big share of photos represented places that are meaningful because of the experience accumulated together with others (e.g. family members or friends) in the river landscape. The majority of participants claimed that they bring their family members and friends to the Manzanares river and the Danube canal. Participants, regardless of the length of residence and the proximity of individuals' homes, characterised the canal as a meeting place with a remarkably friendly atmosphere. Bonding with the Danube canal was strongly related to the social dimension of the place attachment, while in the Manzanares it was not a case. One of the reasons for that could be the fact that the Viennese street life is considered to be rather reserved, whereas the canal is seen as a place that unites people with different backgrounds and provides possibilities for improvisation and spontaneous interactions. By contrast, meanings that were attributed to the Manzanares river were less related to the social context due to the fact that there is no shortage of places for socialization in Madrid. Some participants from Madrid indicated that the significance of visiting the Manzanares river was dependent entirely on visiting friends who were either close, and/or lived close to the waterfront. In Vienna, participants captured the same places at the Danube canal and shared similar feelings towards that places, this supports Greider & Garkovich's hypothesis that meanings are constructed and shared within social

categories (Greider & Garkovich, 1994). Many indicated that feeling of belonging to the canal enhanced their social ties, thus, it confirmed the thesis from the literature on environmental psychology (Fried, 1963; Kyle, Mowen & Tarrant, 2004; Manzo & Perkins, 2006).

5.1.4 NATURAL ENVIRONMENT BONDING

Following the idea of Sack (1997) about the place attachment to rich natural environments, the urban rivers stand as remarkable elements of the natural environment towards which the attachment could be developed. In both cases, the urban water bodies were considered as big natural areas in the middle of the concrete cityscape. Participants underlined how the presence of the water in the city positively affects their well-being and emotions. This reflects the biophilia hypothesis that claims that humans' connection to nature and humans' well-being are strongly affected by their relationships with the surrounding natural world (Kellert & Wilson, 1993; Wilson, 1984). Although, in both cases, participants underlined the importance of urban water bodies, they were hardly represented on the photos. The Danube canal was never captured as a main object of the photos, whereas it was broadly represented as a background for different activities. The vast areas for recreation and leisure along the Manzanares river and the Danube canal contributed to the natural ambience of both waterbodies but shared experiences and social ties that developed there were crucial factors in the place attachment construction. This trend was similar for all participants regardless of the length of residence and the proximity of individuals' homes. Only in some cases in Madrid, the connection to the natural environment was more vivid among participants who spent more time near the Manzanares. The rich flora and fauna of the Manzanares river more strongly contributed to the development of the emotional connection to the natural environment there. Nevertheless, many participants mentioned a lack of sensorial experiences and possibilities for the interaction with water bodies in both cases. This may be seen as one of the crucial reasons why both water bodies rarely stood as the main objects of the photos but rather as a background for different activities.

5.2 WHERE IS THE RIVER?

In spite of the fact, that the importance of the rivers as natural objects within the urban landscape was articulated in many interviews, meanings attributed to urban rivers tended to be based on the memories of accumulated experiences and developed social relationships rather on its value as a part of the natural environment. This leads to the question of whether the value of the urban river as a part of the natural environment still tends to be underestimated and the waterbodies are still more perceived as resources. Photographs dramatically illustrate the relevance of this question because only a few photos captured the Manzanares river as a main object of the photos, whereas the Danube canal was only represented as a background or a part of the landscape. Although, many rehabilitation and regeneration projects intended to integrate urban rivers into cityscapes on different levels and create more opportunities for activities and practices that influence the experience of urban rivers, many participants claimed that they experience a lack of sensorial experience and possibilities for interaction with urban water bodies. Spatial analysis visualized this statement. In Madrid, a big share of the photos was taken in a small area that provides a possibility “to touch the water”. The man-made ponds and fountains create a visual and auditory illusion of the proximity to the Manzanares river, but they are not connected with the waterbody of the Manzanares river that is completely inaccessible. It was claimed that visitors of the Madrid Rio park are not particularly conscious of the presence of the water there even if it is known that the river is there. In the case of the Danube canal, almost half of the case study area was not captured on the photos. The majority of the photos were taken in the area that could be described as an area with visually and physically accessible, barrier-less waterfront that allows various ways of the appropriation of the canal concrete waterfront as well as partly provides access to the water. This area has a purely urban character with large concrete surfaces and little greenery, but for many participants, such artificial character of the canal banks negatively influence the image of the Danube canal as a part of the natural environment.

All the foregoing leads to the idea that the such a low bonding to the natural environment is significantly influenced by two factors. The first one is related to low physical accessibility of the urban rivers and the waterfront, while the second one refers to a lack of possibilities to experience and interact with rivers. This could be summarized in one question: “are urban rivers really accessible and visible within the urban fabric?”.

5.3 CRITICAL REFLECTION ON THE METHODOLOGY

Applying a photo-based methodology has a range of contributions to the study of the place meanings and place attachment. It allows addressing the more qualitative dimension of urban space (Lombard, 2013) and obtaining coherent and complex constructs of place meanings and elements that foster place attachment. Firstly, Visitor Employed Photography (VEP) made possible to grasp multifaceted meanings and qualities of the place that would be difficult to investigate by applying more traditional methods of studying place meanings and place attachment (e.g. semi-structured interviews). Participants embodied every photo with different dimensions and details of the place as well as with various experiences that took place there. Secondly, VEP helped to generate a big amount of qualitative data. Thirdly, VEP provided a possibility to actively involve participants in the research process. Moreover, many participants indicated that they enjoyed the process of taking photos and claimed that VEP helped to reflect them on their relationships with the surrounding environment and particularly urban rivers. However, VEP showed some disadvantages. VEP is quite a time-consuming method from the perspectives of the participants (photo walks and post-walk interviews take considerable time) and researchers (labour-intensive data coding and analysis). An original VEP method implies a provision of disposable cameras to the participants and further development of them. Therefore, researches that apply VEP are quite costly. For this research disposable cameras were substituted by the smartphone cameras (researcher's or participants' smartphones) this resulted in slightly different formats of the photos but helped significantly reduce the cost of the research. However, for bigger samples, the use of smartphones instead of disposable cameras is not possible.

This research aimed to test a three-pole four-dimensional model of place attachment developed by Raymond and his colleagues (2010) within an urban landscape (Raymond et al., 2010). The applicability of such a model within an urban landscape was questioned due to an assumed weakness of the bonding to the natural environment. Nevertheless, it is believed that this model is applicable to the studies of the natural environment within the urban landscape. This study showed a low attachment to the natural environment dimension of the place attachment towards the Manzanares river and the Danube canal, however, this illustrated not low reliability of the model, but rather a certain attitude to the urban rivers as part of the natural landscape among participants.

5.4 PRACTICAL IMPLICATION

After decades of degradation and neglect, urban rivers became the main focus of many sustainable development and water management directives around the globe. As a result, many river rehabilitation and regeneration projects aimed to rethink the role of urban rivers in the daily life of residents and provide more opportunities for recreation and leisure activities that influence the experience of urban rivers and, consequently, a meaning of urban water bodies in daily life and attachment to them. This research recognized some patterns of factors that foster place attachment towards urban rivers. Firstly, physical accessibility to the waterbody and waterfront became one of the crucial factors that fosters place attachment. In the case of the Danube canal, the spatial analysis showed that almost all photos were taken in the areas that provided free physical and visual access to the canal. Obviously, there is a range of other factors that influenced attachment to the canal, but this characteristic served as a ground for other aspects that fostered place attachment. In the case of the Manzanares river, a big share of the photos was taken in the area that provides physical access to the water - men-made ponds and fountains. This location is only one spot on the waterfront that allows to "touch" the water. However, the water body of the Manzanares river is completely inaccessible. Secondly, the areas that allow different ways of the appropriation of the waterfront space positively influenced the place attachment. On the Danube canal, such characteristics of the waterfront enabled various experiences and functionality of the canal. The canal edge and different steps that lead to the water were highly represented in the photos and described during post photo walks talks. The availability of consumption-free spaces made a huge contribution to the place attachment. Additionally, the social and personal attachment was positively affected by the presence of cultural initiatives and small niche non-commercial recreational facilities on the waterfront. Participants indicated that the Danube canal stands for them as a place for improvisation and spontaneous activities, the flexibility of the waterfront space makes a significant contribution to it.

Importantly, many participants mentioned the importance of the sensorial experience of urban rivers. However, many indicated that they experience a shortage of possibilities to interact with urban rivers. Additionally, some participant said that they are not particularly conscious about the presence of the urban rivers due to the design characteristics of the waterbed and waterfront.

In the framework of the ongoing discussion about the extension of Madrid Río park and commercialization of waterfront areas on the Danube canal, such findings could contribute to the creation of better places. They show that there is a demand for physically accessible urban rivers as well as for accessible and design flexibility of waterfronts that allow various ways of the space appropriation, but guarantee safety. Moreover, there is a need for possibilities for the sensorial experience of urban rivers and opportunities to interact with them. These findings could serve as recommendations or a framework for future transformations and interventions on the waterfronts and rivers. Consequently, the question “how do urban rivers could be more accessible, visible and auditory?” could stand as a guideline for future development projects.

CHAPTER 6

CONCLUSION

The relationships between rivers and cities have been changing over time. However, rivers have always been important elements of cities across the globe and produced a huge influence on the urban structure as well as on the quality of life in cities. Urban water landscape engineering interventions of the past centuries, characterized by increasing urbanization and industrialization, led to the degradation and exclusion of water bodies from urban landscapes. As a result, urban rivers became one of the most modified landscapes around the globe. In 1970s, an environmental turn contributed to the rediscovery of the value of urban waterbodies. Many EU directives and agenda (e.g. EU Strategy on Adaptation to Climate Change of 2013, 2013; Urban Agenda for the EU, 2016; Urban Water Agenda 2030, 2016) proposed important visions and guidelines for further restoration and recovery of the functional and ecological conditions of rivers. The most integral point of such visions was a shift from considering the rivers as resources to considering urban water bodies as part of the environment. Consequently, an introduction of a blue-green city model with water-centric approach to the planning became a priority. Regeneration and rehabilitation projects aimed not only to create the sustainable environment, improve water quality, integrate rivers in the urban fabric and achieve biodiversity recovery, but also to rethink a role of urban rivers in the daily life of residents and create more possibilities for leisure and recreational activities.

Such physical and functional transformations of urban rivers over past centuries fundamentally changed the values and meanings of urban rivers. However, cognitive-emotional bonds to urban rivers, a role of urban rivers in the everyday life as well as meanings that are ascribed to urban rivers by individuals nowadays remain unexplored. By applying concepts of environmental psychology and a photo-based method this inductive explanatory study aimed to research the meanings to urban rivers by individuals and understand how meanings, that are shaped by everyday experience

with physical and social landscapes, affect different dimensions of place attachment towards urban waterbodies. A three-pole and four-dimensional model of place attachment developed by Raymond and colleagues was tested in the urban landscape and became a ground for this study. Two different case studies - the Manzanares river and the Danube canal provided an opportunity to address different typologies of urban rivers and grasp more credible research outcomes.

The findings indicated that the Manzanares river and the Danube canal are considered as places that are detached from the urban fabric and serve as a refuge from the city bustle. It was stated that urban rivers contribute to the emotional and cognitive restoration and relaxation as well as positively affect well-being and quality of life. Moreover, the importance of the presence of the waterbodies in the urban landscapes was described in the many interviews. Despite this the Manzanares and the Danube canal were barely captured on the photos. A few photos represented the Manzanares as the main object of the photo. While the Danube canal was never represented as the main object, but only as a background for various activities. Excessive areas for recreation like green zones on the banks of the Manzanares river and areas along the Danube canal provided certain recreational quality, however, the memories of experiences and social relationships developed there more strongly affected attachment, underpinning personal and social dimensions of bonding. Such tendency was noticed among all participants irrespective of the proximity of individuals' homes and the length of residence. The social dimension of attachment became crucial in the case of Vienna, the Danube canal is considered as a meeting place that unites people with different backgrounds and provides possibilities for improvisation and spontaneous interactions. Similarly to Vienna, many meaning attributed to the Manzanares river were based on the social ties that were developed there as well as personal experiences.

Such a low attachment to the natural environment leads to the conclusion that the value of the urban river as a part of the natural environment tends to be underestimated. This research distinguished two factors that negatively influenced the bonding to the natural dimensions of place attachment. The first factor relates to the physical accessibility of the urban waterbodies and waterfronts. In Vienna, almost all photos were taken in the area that provides a physical access to the water body and the waterfront, while a half of the case study with low accessibility to the waterbody and waterfront was not captured on the photos. The second factor related to the possibility to interact with the river. In Madrid, a big share of the photos were taken in the area

with man-made ponds and fountains that create a particular experience of being near the river by employing sound of the water and tactile experience of the water. However, the waterbody of the Manzanares river is completely inaccessible, that is why the man-made ponds and fountains are only spots that employ other senses apart of visual. Many participants in both cities indicated a lack of possibilities to interact with urban rivers. Such factors restrict experiences of urban rivers, especially experiences that are related to the environmental dimension of place attachment.

On the contrary, some patterns that foster place attachment towards urban rivers were identified. It partly reflects on the factors that negatively influenced the natural dimension of attachment to the urban rivers, particularly referring on the accessibility of the waterbodies and waterfronts as well as possible experiences of urban rivers. However, another factor that positively influence place attachment is a possibility for various appropriation of the waterfront spaces. This refers to its design, but also for it being a space that can be used freely and for whatever purpose (e.g. consumption-free areas). Moreover, the presence of cultural initiatives and small niche non-commercial recreational facilities on the waterfront positively contribute to the place attachment.

This research studied place attachment towards urban rivers and meanings that are attributed to the urban rivers by 16 individuals from Madrid and Vienna. The findings of this researches are based on the subjective experiences of 16 participants, however, such findings showed some patterns of place meanings and place attachment towards urban rivers that could be tested in the quantitative study with bigger sample of participants.

The relationships between urban rivers and individuals are very complex and take long to develop. But such relationships produce a huge influence on various aspects of our lives such as well-being, the quality of life, life satisfaction as well as a degree to which we care about the environment by encouraging protective behaviour and pro-environmental behavior. Therefore contributions from the fields of environmental psychology and human geography have to be considered in land management and urban planning practices as they provide knowledge about the valuable intangible characteristics of the place.

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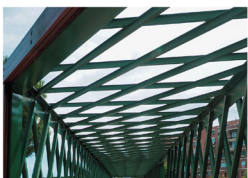
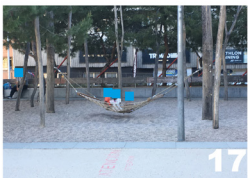
Figure 32 | Photos that captured transportation infrastructure. Photos #105,115,127,86 (Source: Participants)

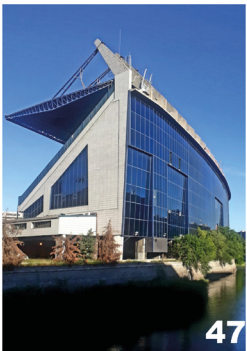
Figure 33 | Photos that captured bridges or elements of bridges. Photos #106,119,76 (Source: Participants)

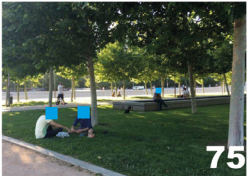
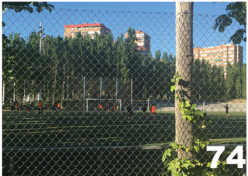
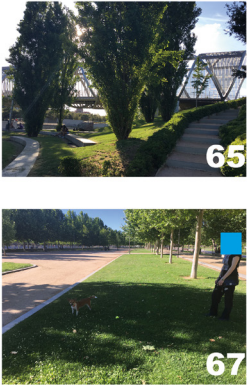
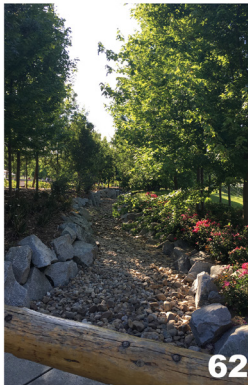
Figure 34 | Map of photographed places at the Manzanares river (Source: Author)

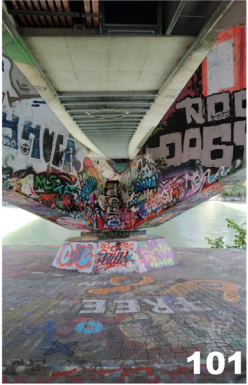
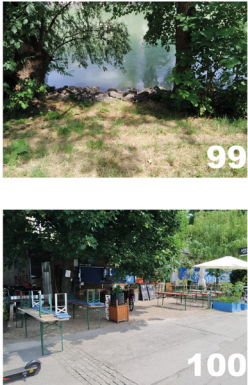
Figure 35 | Map of photographed places at the Danube canal (Source: Author)

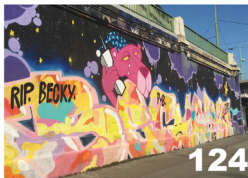
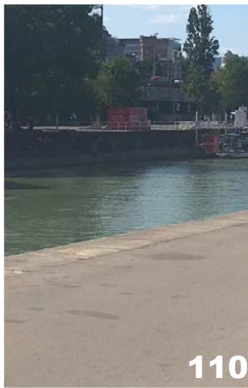
APPENDIX 1 | PHOTOS

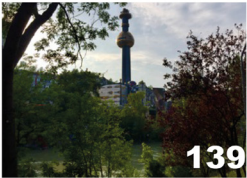












APPENDIX 2 | POST PHOTO WALKS INTERVIEWS

16 interviews were conducted in the period May-August 2019. This appendix represents transcripts of 6 interviews (3 from Madrid and 3 from Vienna). However, transcripts of all interviews are saved on the CDs that are attached to the hard copies of the thesis.

A table below illustrates information about the participants and dates of interviews.

C i t y	C o d e	Gender	Age	Length of residence in VIE / MDR				The proximity to an urban river		Interviewed on:
					b*	c*	d*	Gp.1**	Gp.2**	
M A D R I D	M1	female	25	+					+	11.05.2019
	M2	male	26	+				+		13.05.2019
	M3	female	27	+				+		15.05.2019
	M4	male	37	+				+		15.05.2019
	M5	female	30			+		+		27.05.2019
	M6	female	37				+		+	27.05.2019
	M7	female	46				+	+		27.05.2019
	M8	male	27				+		+	29.05.2019
V I E N N A	V1	male	26	+					+	4.07.2019
	V2	male	27	+				+		17.07.2019
	V3	male	31	+				+		19.07.2019
	V4	female	28		+				+	24.07.2019
	V5	female	27	+					+	25.07.2019
	V6	female	28		+			+		30.07.2019
	V7	male	27			+			+	30.07.2019
	V8	male	37				+	+		2.08.2019

* - Length of residence in Vienna / Madrid:

a - less than 1 year

b - 1-5 years

c - 5-10 years

d - more than 10 years

** - the proximity of participant's home to an urban river:

Gr.1 - participants' home is located within 1,7 km to an urban river ~ 15 minutes walk;

Gr.2 - participant's home is located more than 1,7 km to an urban river ~ 15 minutes walk).

PARTICIPANT: M2**INTERVIEWED: 13.05.2019 IN MADRID****TRANSCRIBED: 8.07.2019**

Interviewer:	Could you please explain what you wanted to represent on these photos?
PHOTO10	
Interviewee:	I actually go here from time to time to just chill and relax. And I like this spot because it is calm and...you still when you sit or lye down on the meadow you can see a lot. You can watch people, you have a nice environment. And it is a good spot. So I go here.
Interviewer:	How often do you go there?
Interviewee:	I just when there three times in total. Just with a blanket and a laptop. I even went there one time to work. Or just sleep.
Interviewer:	Have you met many people there?
Interviewee:	Yeah, I met a friend once, or twice even. We just sat there and talked. But we knew each other before. I haven't met any new people here.
Interviewer:	It was a bit noisy today there, haven't you been destructed there by the noise?
Interviewee:	You do not hear that much noise. You could hear the street a little bit from the background. But still, it was comparatively calm. And I like this spot because it is a nice walk from my home to there along the river. And also, I think all three times I walked to other places and it was just a good spot on the way. So, I just took a blanket with me and relaxed for a bit. And then went on.
PHOTO11	
Interviewee:	This is one of the bridges connecting two riversides and I actually walk very often...whenever I walk to Malasaña or to the city centre, I would walk along the river and cross that bridge. So, it is just a way that I did very often. And I like it because it is also for me, it is a bit symbolic. Like all the bridges along the river. Also, another one that I will show later. They are like connecting my part of the city (where I feel like homish, close to home) with the city centre. And as soon as I cross the bridge for me it is like more being in the city centre. The bridge is nice and often people just hanging out there and sit on the edge. or watch a river or read a book. Or meet each other and talk for a bit. So I think it is not just a function of the bridge but also like a meeting point.
Interviewer:	When you go to the city centre do you always take this bridge?
Interviewee:	Not always, when I go to Lavapies I take another bridge that I show later. But whenever I go to Malasaña or Principe Pio I will take that bridge.
Interviewer:	What is special about this place?
Interviewee:	What I find interesting is the mix of people there...every age. I often see kids with bicycles. Cycling there. Or old people walking there and I think it is a place where many generations meet each other.
PHOTO12	
Interviewee:	This one just should point out the vegetation. I find it really interesting because in most cities you have a river with water but here, actually, you have trees and vegetation. And I think it is quite nice, it gives me vibe, sometimes going along there and see some animals, some little birds, some other animals. It a nice place just to empty your mind. Like, forget a bit an outside world. And I think this is very nice with these plants in the water. And that nobody can actually access them, so it is a kind of isolated. And for itself. It is like a little island of greenery in the middle of the city which, I think, is very relaxing and nice.

PHOTO13

Interviewee: It is actually a tree. And I took a picture because it always reminds me of like also in Italy - the south, this kind of tree you will never find in the northern part of Europe or Switzerland. Whenever I went for holidays to camping places with my parents or with my friends you would have these trees. And they have a very specific smell. And it is really nice especially in spring-summer when I pass by. It gives you a very nice feeling like of the south. There are a lot of them along the river. That is why I took a picture. It was fun because also my friend told me the same.

PHOTO14

Interviewee: So this is the spot that I actually just went there once just to take a nap. But I liked it a lot because there were a lot of activities going around. It was a calm spot but still, there were a lot of activities going on around. So, behind me was a somebody slacklining, and you could see some dogs running around. As you can see in the picture as well. And some little kids and some families. And people seem just come here and chill. and relax and sleep and do their activities. It is more like a park function.

Interviewer: **What time of the day did you go there for a nap?**

Interviewee: Two or three o'clock in the afternoon. But still, it was not as hot as now. So you could lay in the sun. But also all the trees there give a nice shadow. For me, it is actually a part that I like in the park. The spot that I showed before was a place where people go to sleep and this one is more like a park. You also have a fountain close by. It is directly connecting to the Campo. So, to the Lago. So, people just walking there, to the lakes.

Interviewer: **Are you planning to go there again for a nap?**

Interviewee: Yeah, I think I will go there again. More spontaneously, not really planning. It would be a nice place just to, I do not know, have lunch...also whenever I go for a walk along the river I always walk through this park. So, yeah, I think I will go there back at some point.

PHOTO15

Interviewee: And it is actually the part of the river that I walk quite often. So, at the end of the street to the right side is a fruit store, so I often go to the store get some fruits and then I walk to the city and eat them on the way. And I like the vibe there because all the activities that are going on. You can always see people jogging.

Interviewer: **Do you walk there by yourself or with your friends/roommates?**

Interviewee: Often with my friend actually. Also, sometimes, I just go there for a walk when I feel like I was inside the whole day and I need some fresh air. So I always go to that part of the river, because it is close, it is nice to walk. It is a bit of another vibe. So often I use it as just to get to the city, but often I walk there for the sake of walking. Yeah, often with my friend or my former roommate.

PHOTO16

Interviewee: This is the other bridge connecting Puerto del Angel and the city centre. It is maybe the one that we use the most often. I really like it. It is also a point of orientation. Sometimes if you want to meet somebody it is a good meeting point. And both sides of the bridge actually surrounded by some restaurants and shops. So we often go to these places on both sides of the river. There is a Venezuelan restaurant close by, so we often just cross the bridge and go there. Or cross the bridge and go to the church on the hill. Or once we ordered pizza just and just sitting beside the bridge. I think for us it feels very homish being there. And also from the bridge, I like the view from the bridge. You can see the stadium Calderón - old Atletico Madrid stadium. Just quite nice. So, it

PHOTO17**Interviewee:**

is a former stadium of the football club that is not used anymore. And on the other side, you can see the cable car connecting Campo and the city centre. It is a good meeting point.

Interviewer:

This is the hammocks that you can find in that part of a riverfront park. I like it because it is always full of people and other activities and kids. Like here. And it seems to be one part of the riverfront that is very regularly used by lots of different people. Sometimes you can see people reading there, and you can see elderly people just watching other people, or meeting together just to exchange. And kids, as you can see, playing there. And many many bikers and joggers pass by. So it is an interesting point and I like the underground as well because it is very soft. And when I go there I walk barefoot.

Interviewee:

Do you pass by this place or you can stop here for a bit and sit on the bench?

Sometimes I sit there on the bench. Just do not do much. I just watch people. But I like it. Yeah, often I just pass by. But always it gives me good vibes because it is next to the street where still you have lots of traffic. And there is more like a calm part begins. When you along that street to the north. I like the spot and I also think that it is a very nice ide with hammocks. I haven't seen it in many parks. Benches you have everywhere but there...I never used one but I would love to...I think it is a good idea. It is well designed to make people stay there. And also a location well-chosen because as I said it is not too far from the street and the settlement. So people come there for the sake to stay there.

PHOTO18**Interviewee:**

What I wanted to show here is a view. It was a bit difficult to get it in one picture. Bit it is always nice when I walk to the riverfront and you see the whole city to the left and the church on the top of the hill and a place beside. And the bridge to the right. And it is nice to walk in that direction, especially in the evening. When the colour of the sky is changing and when there is a sunset. You can see the park. And you can see the city on top and bridge and a park in between. So you have these three different layers. Then the sky which is just a very nice atmosphere of ambient. If you just walk towards the city. You have the whole view. That is actually one of the things that I like the most on that river. From my side of the river, you just see the whole city in the background. I think you do not have that in many cities and especially through the river it gives you a very specific view...you can also see different layers of the park along the river, so park that is actually directly on the river, down here, then a lever with the trees up here. And then sometimes you walk up to the church. So, I think I use a different level. Sometimes it is a bit weird because not all different levels accessible. For example, if you want to go from here to the other part of the bridge you could not go under the bridge but you have to walk here all the way back and cross the street and then go

toward the stadium, towards the south, it is a bit easy, you could walk all the way along the river and here sometimes in order to stay at the riverfront you have to cross the street...

PHOTO19**Interviewee:**

This is just a very nice spot beside the bridge. Actually, I went there once and took a power nap. But I really like the spot because it is like a nice angle to sleep. It is very comfortable and you have the evening sun there, you can just enjoy the last sunshine in the evening. And lay there. It is never crowded. They're always a few people laying on the grass, reading, but it is never crowded. You always have a spot. It is another side of the river from where I

	can see my neighbourhood. I think I found it by accident when I walking along the river. And i just saw the spot. It is very nice. So, also these plants. gardens inside the water. I think they are still planting some staff there. You can actually touch the water. And you can watch people on the bridge which is kind nice. I think it is a nice spot. There is a club besides it. I think it is a reggaeton club. So when I pass by this spot on the weekend there is a huge line of people standing there.
Interviewee:	Could I ask you how often do you have these walks? And do you separate your walks going to the green areas and going along the river?
	In my first weeks, I went more to other parks, to the Lago and walked around the lake, also very nice spot...you have a nice view on the city...and for a sunset, it is very beautiful. But I now I use this park quite often and just like not planned. For example, today I went with X and we just took a blanket with us, but in the end, we did not really hang out there. Just walked along, from the bridge to the north. And then we crossed the bridge and then on the other side back. And sometimes I just directly go, like if you come to that bridge to the left downstairs, just sit there for a while and enjoy. But I actually do not go often to the same spots. And I do not often take the same roots.
Interviewer:	Good, thank you so much!
Interviewee:	You are welcome.

PARTICIPANT: M3

INTERVIEWED: 15.05.2019 IN MADRID

TRANSCRIBED: 9.07.2019

Interviewer:	Could you please explain what you wanted to represent on these photos?
PHOTO20	
Interviewee:	This photo is, this is right to my bridge Puerta de Segovia which is one of the bridges that cross over the river. And this particular spot is kind of where I always start my run. And I really love it because there is this long viewpoint that cuts through the park and goes along this side of the river. And you look down, no matter what time of the day it is, whether it is early morning or late afternoon, whatever, it is just a beautiful, a straight shot down the river. And when I actually start walking down this the path trees starts to muffle the sound of the city a little bit so, you actually start to feel like you are taking away from the busyness of Madrid. And at this particular moment dog is running across the path there. And there are always dogs running around here. So I thought it is a kind like, a dog just does not care about the pathways that you are walking on. And for me it is one of those spots, like, it is a start for me...it is weird but I guess that is why I took it. Depending on the weather and schedules but...whenever I do a run, I run along the river and I do that because I do not like running in the cities, I do not like stopping. And the river is a very nice continues run and also it is usually cooler and fresher with the air of the water. So, usually I start my run here but then I go down closer to the water because it just feels like you are not like in the middle of giant one of the Europe's largest city. A kinda little bit separate from that, you get that kind of...and especially the way they naturalized it.
Interviewer:	Do you also walk there or only run?
Interviewee:	Also, I walk there a lot. Sometimes, I walk and there and there are some places where I stop and sit, where I have really good memories of conversations with people from those spots. But usually, it starts... if I am walking this way towards Principe Pio, if I have to walk there or I go cause it goes towards Principe Pio, if I have to walk there, if I want to have a little

	walk to clear my head this is usually the point where I start it. So, it is just a beginning point for me.
Interviewer:	You mentioned some people, have you meet there with your friends or there are some people whom you met on the spot?
Interviewee:	Usually, it is friends, ether other friends from Madrid or people that are coming to visit me. I bring them to the river because I think it means a lot to me as a kind of space. I feel like it is my space in the city. You know., like it is mine which is kind of funny cause it is definitely used by many people but...so whenever my dad visited or my friends or my sister I always took them along the park here and along the river... and we always stop and sit on the grass to have a coffee somewhere and it is just like...to me, it is a little refugee from the city chaos.
PHOTO21	
Interviewee:	This one is a naturalization of the river. Again, looking at the same direction on the bridge, on "Puerta de Segovia". And I always stop, when I am walking or running, I always try to stop and listen to the water cause I think, I know that many people do not like naturalization of the river and lots of people say «oh, I want water back! That is a river!». But I think there is something really beautiful about this, it brings a lot of green and wildlife into the city that won't be there otherwise. And it also gives you a sense of what nature would be like without the city here. Yes, it contained within the walls or riverbanks but it causes natural qualities to it. You sometimes lose in the city, you can have super naturalized parks that kind of feel disconnected. But this is really kind of nature in the city. And they're always different types of ducks, and in the spring there are always chicks and I stop and I watch them. To me, it was a really nice part. I like this part. I usually, if I am running along either side of the river and I usually try to stop around here just to kind of take it a little bit. Cause here is where they start adding some more trees as you walk south along the river. So you see more trees in the river, you can go further north and I think it just really pretty and really cool.
Interviewer:	Do you usually run in Casa de Campo?
Interviewee:	Yeah, so what I usually do is still start by the river and then depending on the length of run or depending on what I am feeling like I will run to the park around the lake or I will run the river and a lake is an extra bonus. But no matter what my run always based around the river.
PHOTO22	
Interviewee:	This is again Puerta de Segovia. But this is on the west side, north-west side of the bridge. And they have little man-made ponds. And it is only part in the entire park where you can get down close to the water along the whole river. Which I think is a little bit of the shame. It could be ...I understand it used to be a river with floating water and maybe they did not want people to have access to it. But now I think it did a really cool job here kind of cascading down, so you still have access to water cause nowhere else you can. And don't ever
	seen people in the water. But you definitely can get down like put your feet in the water, or touch it, or just sit on the steps. And this spot is where I brought my best friend X when she was visiting me. And we just sat here and lying on the steps in the sun just talking for a couple of hours. And you know, it is not a very beautiful spot but it is kind of nice to be kind of next to the water. And just my memory of this space is just lying in the sun. She was here for five days. So the last morning she had her luggage with her, we gonna walk to the train station. And we were just lying in the sun for a couple of hours just chatting. Cause we had time to kill. So yeah, it was a nice little spot. And it always feels a little bit cooler when it is hot cause it is next to the water.
Interviewer:	Did you go there by yourself as well?

Interviewee: I have been there a couple of times by myself. I have gone there once to write my journal by myself. And sometimes when I am running and it is really hot I will stop here and just cool down. Or if there is a nice sunset I will just come here and chill here. But because this is steps it is not necessarily the most comfortable..so it was only one spot that was not covered by shade in the time of sunlight. It was actually a cooler day when we were trying to get warm. Yeah, so this is that kind of spot for me. So now, when I walk by I think about X lying in the sun.

PHOTO23

Interviewee: There is another side. And I think this is the prettiest view of Madrid. I am maybe biased because I live quite here. But like in the mornings or even in the evenings you get the most beautiful views from here. I have been here at six in the morning, at seven in the morning sunrise, and you just get a sunset behind the palace that lights up this pool. And then again at the sunset. And here before I had drinks with X. We just sat down and have long chats. This is just one of those spots that I think you cannot beat the view..it has the prettiest view, with all those trees, all you see is green and these beautiful buildings. And again you get this water. But it doesn't feel as loud as another one. I just love...this view is just my favourite.

PHOTO24

Interviewee: This is another side of Calle de Segovia as you walking across the man-made diagonal overpass, that is for pedestrians. On this photo, I am looking east I guess and there is a series of buildings, very symmetrical, geometrical and architectural and they have these graffiti on the bottom. I think it is just a kind of space because you have...right now I am standing on the railing and a river is below me. And you look across and there always little trees recently planted. It sounds funny I run along here too. It is just one of those spots, I have noticed these buildings a lot, I have quite a few photos on my phone. I stop to take a photo because it is really cool. But I thought it is a cool one today, just different types of trees against different graffiti on the same building.

PHOTO25

Interviewee: This is on the west side looking north. There is Principe Pio over here. Casa de Campo is on the left. And I always found it as a really funny view cause, I mean, when I am running sometimes I am in my own thoughts, I am walking and I am in my own thoughts, and I walk a lot to sort the things in my head, like thesis, I would always walk if I have an issue or personal thing that I need to sort through...but this point I always find funny cause you have all these beautiful green whatever and you look at super old harsh buildings, and one of them, if you look closer, says "Hotel" on the top. At night you will see it right there. And at night it lights up like neon. And if you are there at the sunset you will notice it cause it is a giant neon hotel sign. Kind of reminds you that you are in the city. And even today when I was walking and I was looking at it and it was like orange and brown, and I hate orange and brown together. And I realized that all the buildings are orange and brown. And I was like hey, the whole collection of buildings is just kind of funny. But they do have the best spot cause they are next to the river. So it is kind of funny, those weird buildings. I do not know why I feel the way I do about them, but right to them is a beautiful river. You always see people on this part, where the path opens up a bit on this side, is a bit like tailings. Which are beautiful. There are always people walking around because this is like a big transitional zone at this part of the river. To me, it is like, the buildings, I do not know why I just find them ugly. Place, it is like a viewpoint. They are not very attractive buildings. But I

Interviewer:

guess they are old. But I like how it captures river form cause it just falling behind them, and you can see groups of people walking all around together. And this area actually gives you an opportunity to walk as a group. Whereas you are on the path you feel a little constraint, there are bikes going by, and runners, and all this...so feel like you cannot walk in a line...this is kind of a point where it starts spreading a little bit as well.

Interviewee:

Do you try to avoid this place because of this composition of houses?

I have noticed I run backwards this way a lot, so I run this way on the other side to the north on the east side, that I do not see them. And I turn around, so I not necessarily see them. And I do not know, maybe it is just a mentality thing of how just now I do runs. Cause I told you where I start my runs usually on the other side. But this is about buildings.

PHOTO26

Interviewee:

This bridge is further south down and this is my turning point. The first photo was like a starting point of my runs. This, if I do over 5K, is my turning point cause this bridge...is really cool, on the other side it is a single bridge that fork into two directions, so looks like a little "Y"...and this is the northern part of "Y" looking into the bridge. I think it is such a cool, so you can see a little bit on that side, see how it comes out and goes down. I like it because a cross of little bars is beautiful. And then it is all wood flooring. This is a nice spot where you get some rest from the concrete cause the rest, the whole walkway, is all concrete. But the shadows, I just enjoy walking through, just running through...it feels nice. And then there is a little nice view platform here. And this is my favourite. There is always an old man, standing there, watching birds in the water. On the platform, they come out. And I think this is so cute. And sometimes I do it as a comeover and I watch. I think it is just a little cute platform. And there is always this man. So adorable. Just watching the birds. So, as I said it signals me a turning point. Time to change direction.

Interviewer:

May I ask about the platform. From this platform you cannot touch the water, right?

Interviewee:

From the bridge, you have 10 meters to the water. You go out on it and there are no bars around. Just a small railing. So you feel that you are stepping out a little bit. Every other time when you are on the riverside you flash against the rest of the riverbed or you are on the bridge and you flash on the bridge. And this is only one place where you feel that you can step away from the pathway. And this is just in the middle of the river. You are like on the top of the river. Which is cool.

PHOTO27

Interviewee:

In the background, those are the steps where [my friend] memories are. This is another side. And these are the fountains. I did not spend lots of time near these fountains but I love them. I love this sound of the water rushing. And I think it is something that maybe you lose a little bit along the river. There are places where you have rushing water sound, but here you really feel it

because of the fountains. And obviously, it is man-made. And I really enjoy it. And if it is a windy day, a hot day, the water sprays into the park. It is so nice and refreshing. Sometimes I just stand there. Yeah, I think this is just kind of funny this little places where they actively tried to make like there is a movement in the water. It is funny cause all around it is like still. And they have this little area where fountains are. And this is just a funny contrast of how this stillness of this mirrored ponds and all sudden massive man-made fountain. Which is making noise. But I like them. I do not necessarily always spend lots of time here, but there is something about them that I like. And I have always enjoyed, on the mirrored pond, the reflections that you get from the buildings. So, for example right now the sunset sort of, you just get the

PHOTO28**Interviewee:**

most amazing sunset in the reflection. Because the sun sets that way in the west. So, it just sparkles. Again, I have tons of photos of these fountains on both sides of the river.

This is the entrance to Casa de Campo. This is the area where everyone breaks into groups. There is a large mosaic stonework. But this kind of symbolizes "you leaving the river and entering something else" in the very formal way. And this is not texture change on the stones, but then you cross pillars. You are crossing through a threshold into kind of a different space. And this is a different space obviously. This is a kind of places that symbolize change. And when I do walk it is again a symbol "you are leaving the city and you are entering the park". There is no gate but it feels like it is.

PHOTO29**Interviewee:**

This was a funny photo. There on the back is an ugly building that I do not like. But the reason I took this photo is this little pathway, this pavement blocks. It is such a funny place on the entire river. Because everyone who runs tries to run on here. Everyone who walks tries to walk on here. And I do not know why. It is not like it is softer. But it is like a little highway that I always run on. And people with me always run on it. And people walking on it. So it is just a little fight for it. And the same on the other side. The tiny little path. And everybody fights for it. Everybody wants to run on it. It has a very smooth texture, so maybe that why it is nice to compare to the rougher path. But it is still stone. And even when I am walking along the river, I tend to align my walking route with is the boundary between the path and non-path. It is just a funny little space that everyone fights over it. Bikers, strollers, kids...and this is the space of like "go". So people that run around. And this goes the entirety of the park. Beside the river. From the man-made part. There is a point where you do not have it anymore further north but the Rio park they put it.

Interviewer:**Interviewee:**

Is it about shadow as well?

Sometimes it shadows sometimes it's not. When it is a really hot day I would do it. But when it is colder I would run on the sunny side because I want the heat. I took a photo of it cause for me this is such a path. This is the path!

Interviewer:

May I ask you about people? Did you make any friends there? Did you interact somehow with strangers there?

Interviewee:

Sometimes I interact. When I am running, most of the time I do not stop to talk to people, but there are runners that you like a wave to... something they are cheering you up...I must look like I am dying...so when I am running I am not necessarily meeting people but when I stop to stretch, as I told before there are dogs. Everywhere. In this part of the park. Right between Principe Pio and Calle de Segovia. It was more green space. I know there is a lot further down, but here there are a lot of green space fields. And so if I stop dogs will come up and say "Hi". So, sometimes you are talking to the owners. But I have necessarily met anyone because: a) a language barrier. But also b)

there are parts of the riverbed that feel very stationary, people lying in the sun, you have dogs all over, and again further down south you have cafes, but here it feels more stationary like playgrounds green fields. But the rest of the river feels to me very transitory. You moving from point A to point B. You got bikers, families walking down, you got runners, people who walking from point A to point B. And maybe they are walking to more stationary places. But still, it is very fluid. Like fluid space. And I think there is a little bit of beauty of it. It feels like a river itself. You know you have a river that is flowing. But on either side, you have pathways that also flowing. And people are flowing and doing their things. Kind like all park area becomes a river. Whether it is an actual water or people. Like a linear movement through the city with static

Interviewer:

patches. It is like a river. I haven't met anyone there but maybe I did not spend enough time there and mostly people who go there they go with people or meeting someone. I haven't seen people stopping and trying to talk to other people. Unless they are dog owners or kids. Cause most of the people have a purpose to go there.

Good! Thank you so much!

PARTICIPANT: M8

INTERVIEWED: 29.05.2019 IN MADRID

TRANSCRIBED: 14.07.2019

Interviewer:

Could you please explain what you wanted to represent on these photos?

PHOTO66

Interviewee:

This place to me represents...I came here much time with my friends to drink with my friends, in Spain, it is something very common for young people from 16-17 y.o. till you are at earlier years at university. We do something that is called 'botellon' that basically drinking in the street. When a big group of people drink in the street before going to the disco. Many times the best part of the night was actually botellon socializing with other groups. It was much better than go inside then. When I think of this place I just think about my friends drinking and spending many nights there.

PHOTO67

Interviewee:

For me this reminds me times when I came here with my dog, it was some time ago because I do not live with my dog now. If I move away I would really miss coming here and enjoying Sunday sun with my dog. Just playing with it.

Interviewer:

How often did you go here with your dog?

Interviewee:

With my dog is not that often because I do not leave that close, it is only recently since you can get your dog to the public transport. I came here...I do not know how many times, but not that often...because it is just walking, and from my place to here walking is maybe 45 min to one hour walking. It was a long trip that is why I did not come that often.

Interviewer:

When you were with your dog, for how long did you stay there?

Interviewee:

For half of the day, or have a sandwich and then go back.

Interviewer:

Did you meet any new people? Maybe other dog owners?

Interviewee:

I mean always when you are there...I do not have close dog friends cause I do not come here so often...I always take my dog to places where there are other people with dogs. And then you exchange the stories about your dog and about how your dog destroyed your house, how the dog ate shoes... whatever.

PHOTO68

Interviewee:

This one is the Cafe del Rio. I have taken this picture because it was the first time when I came to Madrid Rio after it was rebuilt. I came here with my best friend from college because he wanted to, after finishing our studies, he was thinking to join the army after finishing colleague. So that day there was...one evening they organized a stand with information about getting to the army. I came with him to get info and then we stayed at this cafe. So every time I see this cafe, I remember that it was my first time here.

Interviewer:

After that time did you go there again?

Interviewee:

No, I have never been there again. Just that time.

Interviewer:

When you are in the city, how often do you go to the waterfront?

Interviewee:

Since I am back, I think this is the second time in three months. But last year

Interviewer:

I came quite often because I have a friend living at Calle de Segovia, so he was close to here. We used to meet.

Interviewee:

Is this your friend from school?

No, he was doing Erasmus here.

PHOTO69

Interviewee:

I took this one in the corner of La Riviera because I came to this place so many time for concerts. For all concerts I like to meet at that corner, waiting for all the people going out. We were staying in that corner watching the river and commenting on how was the concert. Discussing the concert and whether we missed some songs, or an artist did not play them. It is a special place because the first time I saw my favourite Spanish artist. I like this spot.

PHOTO70

Interviewee:

It is the only time that I have seen a stand of the stadium just over the road and really close to the river. So anytime I was passing by I was so amazed to be below a football stadium. I think this is something quite particular.

Interviewer:

Did you go to the stadium when it was open?

Interviewee:

Yes, I did.

Interviewer:

Could you please explain a bit how it was before the renovation project here?

Interviewee:

In that spot, the road remains the same because the remoderation was on that side, on this site apart from the river there is no space for a park. Mainly the road just goes there. The road is still on the ground level, not underground. The tunnel just passing under the stadium.

PHOTO71

Interviewee:

I took this photo because of the climbing wall here. On the riverside. It was one of the first places...when I just started climbing, one time I came here and it was one of my first experiences in climbing. Now I am really into climbing... but that time I really did not have an idea how to climb. Now I am a bit more experienced and I would like to come back and try some of the things that I did that time. I think I came there one more time but it was just at the beginning of my experience with climbing.

PHOTO72

Interviewee:

Pasarela de la Arganzuela. I like it because I think this is not like a usual walkway like they build on the parks near rivers. So, I think it is a kind futuristic. Maybe it is not matching or fitting with an environment very well. Somehow I like it. When I am passing I spend some time watching it. It is something different or very special.

Interviewer:

Do you cross the river there or you just go under?

Interviewee:

Not every time when I am here, but I did it.

Interviewer:

What about other bridges, you do not that excited about them?

Interviewee:

Yeah, Puerta de Segovia, Puerta de Toledo...they are like standard old bridges and to attract so much attention from me, but this bridge... I haven't seen any other walkways like this. I think this is something special. It is not probably not the best one for this location but it has something. Original.

PHOTO73

Interviewee:

This one is...people playing in the fountain...this is my childhood. I remember many times going in the summer through the fountain I was with my parents and just playing with my brother and my cousin. Running through the fountain. Many times my parents tried to catch us because they did not want us to get wet. It was hot. We were children and we would enjoy doing it. And every fountain like this.

Interviewer:	Did you do the same thing in Madrid?
Interviewee:	I did in Madrid, yes. But not here, because when I was a child Madrid Rio did not exist. This starts from 2011-2012 when they were rebuilding this thing. So when I was a child this did not exist. But if it had existed I would have done it here.
PHOTO74	
Interviewee:	At the end of this football field, I just played once here. And football is one of my passions. I like playing football anywhere. And I think this one is a good location, really close to the river you have a good view. And every time...I just played once...but whenever I pass by here, or any other field I always spend some time watching people who are playing. And many times feeling very jealous, I would like to play too.
PHOTO75	
Interviewee:	This is the activity that I like the most, chilling with my friends and maybe drinking some beers. And especially this spot, the one I used to come with two friends, so many times we used to meet here. And we did a farewell for one of them here. And it was also like one or two days before I was leaving for Saudi Arabia. It is one of that memories that I took to Saudi Arabia. My last moment before going to the middle of the desert. I just met them for one year, even less, but three of us have very close relationships. Getting really well.
Interviewer:	May I ask you...on your photos you did not show the river much, you focused more on the location nearby and different facilities, but why did you do so? Why the water was much presented?
Interviewee:	I just maybe took one because I am more in the activities, not the water...but I do like just watching it. For example, every time I was going to a concert I would just be standing and watching the river...in the night. Sometimes you can see the moon reflecting in the water. So, it is a beautiful spot. But yeah, most of the times...I like the water, but in this river particularly there not many activities you can do in the river. And so on. So mainly for me, the meaning of the river is the things that you can do at the fine spot...just sitting here or chilling with your friends, that you can do at any other park but here you have the water. Maybe I haven't mentioned water itself but I came here because you have the water close. It is kind of regular activities that you can do anywhere, in the park...but here there is something special because you are close to the water.
Interviewer:	There is someplace where you can see the sound of the water, do you spend time in those areas or you choose other spots?
Interviewee:	I do not know, I choose the spots more visually...
Interviewer:	Good! Thank you so much!

PARTICIPANT: V1

INTERVIEWED: 04.07.2019 IN VIENNA

TRANSCRIBED: 16.07.2019

Interviewer:	Could you please explain me what you wanted to represent on these photos?
PHOTO76	
Interviewee:	It is the most southern part of the canal I was chilling. I remember this one time when I was there with my friends, it was a really fun day, we were in that area and we just grabbed a pizza. And I remember we were sitting on the place on the river, eating and talking, and we had a lot of fun, and really deep conversations. We were talking about Vienna, plusses and minuses. And the

canal and how nice it is for a city to have it. Also the water through the city. So this place reminds me of that evening that we had. We were sitting on the edge of the canal, almost on the stairs.

PHOTO77

Interviewee:

This is about that restaurant g.maqroll. It is a very nice spot they have two dishes, one is pizza one is shekel fish, fresh from the Danube and you just eat it from the stick with salt and lemon. I think I just had lots of good moment there. The first time I was there with X, that nice day when we helped at X. And we met at the stairs and water was coming up. And X and X were there and we were laughing a lot and discussing a lot, and talking about his PhD. So it was a really nice evening. Then I came back here with X and X when they were visiting because X recommended me a place. And we just chilled there and I haven't seen X for a long time. And he just broke up with his girlfriend and had a little bit difficult time. And we were sitting there and it was nice because he was saying "How nice it is to be here in Vienna! And how much energy it gives him - the whole situation". So we just enjoyed the moment. And then the third time I went there when I had a guest, we just chilled there and ate fish but sitting at the table. The whole atmosphere is nice because it is uncomplicated, a simple concept and you still have a good view and the canal, and Prater is near. And X's bday was also here. We just chilled at the same spot right here at the canal. We always go to the left on the stairs. Just sitting there on the floor, taking drinks. And mostly do not sit at the restaurant but just chill on the ground.

Interviewer:

Why do you prefer that spot?

Interviewee:

I prefer to be near the water. I feel that there are fewer people (on the edge), so it is more chill, and it is less organized. And at the restaurant, you keep on your shoes, and you sit there. But here you can be free and enjoy yourself, and even bring drinks from outside. The presence of the water just gives you a calm feeling. Just water itself. And to sit on the edge and have a view.

Interviewer:

You always go there with other people? Never by yourself?

Interviewee:

No, I always went there with people.

PHOTO78

Interviewee:

It is a little cafe. We went there last time. They had a screen and we watched the world cup. Because it was less crowded than other spots. And it is a non-profit concept, the drinks are really cheap. And the people are really nice. We went there some times. Once with South Americans, we just watched a world cap and Simon came. just it is a nice spot.

Interviewer:

Apart from the world cap, have you been there?

Interviewee:

Yes, also apart of the world cap I went back just to have a beer. They also have nice food like hummus and some other stuff. Not too much. But enough.

Interviewer:

When you go there you have a walk around the canal or you just walk directly there and spent a whole evening there?

Interviewee:

I mostly go there in the evening, like early evening. 6-7 o'clock. Or either,

when it was a world cap, we were just looking for a spot and Simon proposed that one. And I knew it and it was nice so we went directly there. Another time I think we were just at the canal walking around with whole canal excursion and we were thinking about the spot to have a beer and some food that is not expensive, so we just decided to go there. And they have a toilet.

PHOTO79

Interviewee:

This is Badeschiff. It is just a funny spot because I like it. It is actually a ship and it is moving on the water so you can feel the presence of the water. It just gives you a special atmosphere. I had a very nice evening with my parents here and they had friends over and we just went there for the last drink. It

Interviewer:

was very nice, the temperature we had a few drinks and they told me how much they like Vienna and the canal. We talked also how much the canal gives you a feeling of being in the city but being not in the city, because it is surrounded by big streets, but you do not feel the presence of streets because you are in this hole, and you still have so many people chilling together and you do not have any conflicts or much conflicts. People are coming here and chilling here and enjoying. You have lots of diversity, in that sense you feel the urban life but still feel not being directly in the city centre.

Interviewee:

Do you have this feeling along the canal or specifically in this area?

Also in the green area. What I like specifically about this area, that evening with parents, and just a boat and location.

PHOTO80

Interviewee:

This is a spot under the bridge and just remembers me about one evening we were just chilling at the canal, having some drinks, I was there with a friend and it started raining. Like a storm. Firstly we stayed and just chilled and then we went to this spot and it was so atmospheric because all people were gathering there and a guy was playing music for himself and people just feeling the music and started dancing and then a beer seller came, and everybody bought beer. And danced and talked. People were talking to each other. It was very cosy. And my friend told me that it is very special because normally when it starts raining people just going home as soon as possible. But here people just seemed that they want to stay. Just because this is a very good atmosphere and so many people coming together. It was really a special evening. Later evening and then we walked along the canal and then we went to the Berk, to the techno club.

PHOTO81

Interviewee:

My point here is just a whole promenade, from a spot near Adria, I went there a few times to have a beer - because it is cosy and the view is nice, and then a whole promenade to Otto Wagner house. I just chilled a lot here for different purposes. For me going to the canal mostly is this area. I go there, bring some cold drinks, chill there or buy something at some of the restaurants. And between these urban gardens which are very special because sometimes you can just go through and look at the plants and people are doing some things and you always discover new things. So this garden project is very interesting. But also you always have a very nice view on the sunset in the evening. It is very atmospheric. I think this is my spot when I want to go for after-work or after uni beer. Just to chill out. Also, lots of people are gathering here all the time. It is like going to a big bar outside. Just because of the whole ambient. I also go there sometimes alone. Just to walk. I go to the station Schottenring and from there walk a bit at the canal or back to the city, and listen to music and just like walking tours.

Interviewer:

When you go for drinks with your friends, do you stay here or go to another side of the canal, to the stairs?

Interviewee:

Stairs are the next picture. Stairs is actually a spot I also go to. But apart of that I always go to this site, mostly. Because it is more people and less stinky.

Interviewer:

Why do you think you like specifically this place?

Interviewee:

I do not like Tel Aviv but much because this is too posh, but I think I like it because of the bars on the side, there are always people on the edge gathering, it is always full of life. And the location is quite good with the subway station and it is easily reachable.

PHOTO82

Interviewee:

Stairs. I think there are several moments when we chilled there. There was a festival on the canal with concerts. And we gathered there with a whole class.

We were first at the festival but it was too crowded and we just preferred to stay on the stairs. We met there once again with my friend's sister. Chilled there. And then I met X with cohort 11 last week and we also went there. I like the spot because it is shady. I like trees and it is nice in the afternoon when another side, the second district is too sunny and hot. When it is too hot to chill and enjoy. And their stairs and you can chill. That is quite nice.

Interviewer: **Have you met any friend here by accident?**

Interviewee: No, never.

Interviewer: **Have you made new friends at that location?**

Interviewee: No, not really. I always went there with people and chilled with these people, but I did not really meet people.

PHOTO83

Interviewee: This is Flex with a cafe on the top. I went there in my first week in Vienna just because I met a guy in Morocco while surfing. And he told me that he just moved to Vienna. And we planned to meet. And we met at this club. My friend was coming with me. It was after a home party where I met Anhad by accident. And we went there and the party was actually a bit shitty. I think it is either people are really on drugs or very young. It is that kind of atmosphere. But I like the club because it is a cave atmosphere. It is dark and the sound system is very good. You have a huge cafe where you can just chill. It is a nice atmosphere for a techno club. Also, you have a cafe at the top. I did not go back but I like that I went there because it was a kind of exploring the city. Also if there is a spot that you do not really like. It gives you a bigger view of the city. So it was interesting in the evening. And I actually like a cafe on top with random chairs and there is always random music. I think I went there once by myself. It was nice. Also some time ago this club one of the best techno clubs in the city.

PHOTO84

Interviewee: This bridge, at the corner, there was a rave once. I went there with M and M, and also with J and S, and J's boyfriend, also F and S and my friend from Spain. It was a big group. It was nice we danced there a bit. And we had some cheese at the pocket and we had a raclette oven. And we just started making raclette and giving it to the people. It was really fun. It just this one event that I always remember when I pass by this bridge.

PHOTO85

Interviewee: Here I just took a picture of the activity. Which is characteristic for both sides of the canal. A graffiti culture. We once talked about it, and on this side, it is legal to spray and on that side, it is not. But people do it on both sides and then you just look at the graffiti and find the differences if it is legal or not. And you even may find a gender difference. I think it is something nice, it gives some street culture to a city. Something that it is not invented by the city, but from the people themselves. Something bottom up. But which fills the place with life.

Interviewer: **From the photos I see that you spent lots of time in this part of the canal - so called "party area", do you mostly go there with other people?**

Interviewee: I go here mostly to meet people. I think that if I want to go to the green area I go to parks or Danube. Mostly I go for swimming cause I am here mostly in the summer. And in the evening I do not really go to the green areas because the sun is already down. I prefer to go to the spots where people are in the evening. And sometimes you randomly meet people that also gather in the area. Especially at the spot next to Schottenring. A nice homish spot.

Interviewer: **You told that you discussed this topic with your parents. What is your feeling about having the canal just in the middle of the city?**

Interviewee:	It was actually a conclusion that was coming from both of us. This urban life and still having feeling in the city but in the same time outside of the city. This was my point. And their feeling was also like, they liked that it was so quiet and so many people were coming here. I also like the fact that you can walk through the whole city along the canal. From Kalenderg to Uranium and more to the south to Prater. You can walk all around the canal and you have water and it is chill. You just look for bikes. It is a bit like an area that goes through Valencia, that empty river park.
Interviewer:	How is it important for you to have these feeling of being in the city, but outside the city? Do you feel like escaping sometimes?
Interviewee:	Yeah, yeah, just more...I mean having traffic all the time is exhausting and everything going fast, and I mean on the canal, firstly, it is quite, secondly, everything going a bit slower. You can put your earphones and you do need to care if a car is coming or smth. You can just walk and think your thoughts. I think it is that, slow part and silence. Also the activities, some people are biking, some people are doing random stuff, some people are doing art, making music. It is also a place to discover.
Interviewer:	Do you think that it would make much difference if there will be no canal but just a linear green park?
Interviewee:	Yeah, I think the water gives another feeling because it has its own speed. Also because it divides, it makes two sides, you cannot cross without the bridge. Mostly, you decide which side you want to take from the beginning. And it makes it special. The presence of the water, it is just nice to sit and just watch. Some people are even fishing in the canal.
Interviewer:	Here? You saw?
Interviewee:	Yeah, down the canal.
Interviewer:	Thank you very much for your answers!

PARTICIPANT: V2

INTERVIEWED: 17.07.2019 IN VIENNA

TRANSCRIBED: 20.07.2019

Interviewer:	Could you please explain me what you wanted to represent on these photos?
PHOTO86	
Interviewee:	This photo I took when I first arrived in Vienna. I think it was in the first week of being here. And the reason why I took this photo is - I just arrived in Vienna, I looked across the canal, and I could not believe how many people just sitting by the river, enjoying the space. And also there is a tram on the back, and this is a meeting point between transport and people. It really stood out for me. And looking at it now you see that people are using the private space of the bar, but lots of people are sitting by the water and drinking. They are not consuming a product from there. They are just enjoying the space. It just really stood out me coming from a city like London, where no one would sit by the river, it is not an area to enjoy really, it smells bad.
Interviewer:	Is it an area where you usually hang around?
Interviewee:	Yes, yes. So where we are sitting right now...Adria is basically where I come most of the evenings, front here. For me, it is a mid, close enough to the university and close to where I live. So, I just come here, often with friends, and also come alone as well. And it is just a nice place, in the evening, especially in the summer. Just a nice place to come here and sit. I just have good memories of this place.
Interviewer:	Do you go there mostly with other people?
Interviewee:	I will show you in another photo. I took photos of the steps, often I would just go by myself to read. To me it did not seem like strictly a place to go with friends, sometimes I just go by myself. It won't be a problem. But yeah,

PHOTO87**Interviewee:**

coming and sitting by the bar with other friends.

As I said I took a couple of photos of these stairs here. I would come and sit here to read. But the reason I really like it was that obviously when these stairs were made, they were not made as sits. They were just made as ways to get in and out of the water and access the boats - just a part of the infrastructure. But it totally becomes...because they are a kind of separated from a pedestrian part, because they are lowered down, they are like a hidden space. And I really like these little spaces where you can hide in. These stairs are down there.

PHOTO88**Interviewee:**

Obviously, there are lots of graffitis along the canal area. But I especially like painting the stairs for some reason. It is like laying a claim to it. This our thing. This is where we sit. I would often sit on this one. Just because it got the sun more than this one. If I came here with my friends, I think I came here a couple of times with friends, but this is the place where I usually come by myself, I would usually sit on the edge. If I came to the stairs by myself it would be for minimum an hour. A long-time usually. Cause it is just a nice place especially once the weather got better. It is a nice place to come and read. But coming here with friends, sitting on the edge, an hour, an hour and a half. Where I am living we do not have a living room. Basically, it fulfils that purpose.

PHOTO89**Interviewee:**

This is just a photo of Adria. This is probably a bar I came the most in Vienna. And the first time we came here was actually with X after we did a volunteering day. We all came here. Before I have seen this structure, I thought it was a bar but I did not go and check. Then we came and since then I come here quite often. Especially recently cause now we are on holiday. And for me it just, when it was colder and rainier, sitting in there was so warm and so nice and you could just see the river. But now, in the summer, we not necessarily go in the building but sit where we are sitting now. It is all opened up to what happening in front of it, a river, people walking. I think it is closer in a sense that it is a private place and you need to go and buy a drink to go there but it is not like hidden, you know, people can look in, people can lookout. I really like it.

PHOTO90**Interviewee:**

This is just a decking where we are now. Adria is probably the most northern I would come. South I would do all the way down to the Agora. And also for me walking back from university often it is quicker for me to walk along the canal. The canal was not only a place to come and relax but also just a place I use to go through the city. I do not have a bike here. I once took one of that

electric scooters, but they are annoying. I do not do sport here, the only place I do sports in Vienna is Augarten.

PHOTO91**Interviewee:**

The next one is a really obvious thing to point out but I like the street art that you find here. I also like a story behind a street art cause it seems like a really Vienna solution to a problem. I heard that they have a problem with graffiti and street vandalism in the city, especially considering UNESCO sites in the first district. The Vienna solution was not to make it totally illegal but just say "you can do it but here". You can do it in this space, like assigned space that seems to me as a super Austrian solution. I like that story and I like a street

art a lot here. I like the fact that it is pretty much constantly shifting. I took a few photos with friends down here and I am sure if I compared a background of the photos it is different at each one. Especially at early morning and late evening, you walk down here, you see people doing graffiti. It is a really nice thing to see. Specifically, I got this one because it is a mixed media, it is not just a spray painting. You think about graffiti, street art, a kind of spray on the walls, but this is screen printed papers. It is really open, much more an open art form.

Interviewer: **Do you do art?**

Interviewee: Yes, I like sketching. I have not done anything here. I would like to leave my name on the wall or something...to prove that I did live here. But no I have not...

Interviewer: **Where is this one?**

Interviewee: This one...you walk down under this bridge before you reach the second bridge, it is on the left. On this side. Oh, this is actually that I have to point out as well. I do not think that I really took any photos on this side of the river. I think I walked on the other side of the river twice. There was not much attraction that pulls me on that side. The only place that I went there was a Bath Ship. But really I would be always on this side of the river.

PHOTO92

Interviewee: It looks like I have taken a photo of a tree, but it is not that, I am looking at the dog here. Because it is a good reason, sitting here with friends drinking, and just dog watching, dog petting, dog playing. You know, it is like a mixed-use space: people walking down here because they want to have a drink, people walking to meet their friends, people walking with dogs. There are lots of uses.

PHOTO93

Interviewee: Again, it is talking about street art. We learnt in class that public space is a place of conflicts and contests. And you know, it is a place often for uncomfortable discussions. So here in this photo, we have a boat going from Vienna to Bratislava, a really refurbished new cafe-bar that is super overpriced, and then on the bench overlooking it someone wrote: "Fack You". Which you know a sort of, I do know is it aimed at them, or aimed at people just walking. That sort of aggressive, very confrontational, in your face emotion is in some ways quite nice to see in this area. No one coming erasing it cause it is too aggressive. It is just left. Maybe someone was just angry at his ex-girlfriend. But for me the way it was positioned for me aimed at very exclusive tourist industry on the river.

PHOTO94

Interviewee: My experience of this river starts about here and ends at Agora. During the winter when I first came to Vienna, first months, I really did not go that far down. I mean just walking down, looking at the art there. I did not understand

what it was. And then we have a girl at our class who is from Vienna originally. I came there with her. She explained what it is, and the purposes it serves. And the fact that artist can use it as an open studio. As the weather got better we came down, and there were always bands performing on the stages and people singing. I even saw a guy here doing free photography shoots. He set a white background and took portraits of people. It was really cool. So as it got warmer I got to this site more and more.

Interviewer: **For concerts?**

Interviewee: There is always something going on in the evening. If I have free Friday night. I would go there. Especially because I am into art, like do a little bit by myself. And I really enjoy consuming it. So, I often go down here. And also as I said, I

PHOTO95**Interviewee:**

have not had many opportunities to meet people in Vienna outside my class, but actually, all Viennese friends that I made I met here. There was a group of three-four people. We were watching the same...there was a guy who was chiselling wood. He had huge blocks of wood. I was sitting with my friends drinking. Watching. And we ended up getting to know each other. So this is the place where I made friends.

I wanted to take a photo...this is like a bridge before Agora. And I wanted to take a photo...there is a guy sleeping there. But I did not feel comfortable waking him up to ask to take a photo. So, I just took a photo of the bridge. I often walk down there and this space is used by homeless people in Vienna in the summer. The place where they stay out for the sun and have shelter. And have a couple of guys down there, basically every time I walk down there. And they either smoking or sleeping. Or just living their life under the bridge. But to me, it seems that they live relatively unharassed here. There are not many people coming and annoying them. And I know to be homeless in London and sleep under the bridge by the river. You would maybe have an hour sleep before police would come. To me, it just nice when you walking down the canal and seeing different groups of people. Yeah, this is the final bridge before Agora.

Interviewer:

Could you please tell me when you have any friends or relatives visiting, do you bring them here?

Interviewee:

Yes, I had some young guys...my age friends from London coming and we came here...three times... and we would come here every single time. When my parents coming and they came during a May Day parade. And their hotel was further down and they walked down there in the evening. I remember my mom said the next day: "So noisy...", she did not say that she was scared. I got the impression that it was a bit too much. But it was because it was a May Day.

Interviewer:

Did you just walk there? Or went to the bar?

Interviewee:

With friends?

Interviewer:

Yes, and family.

Interviewee:

So, with my family, I did not walk down here. My parents walked there by themselves. With friends, yes we would come here often. Walked down. It is a nice walk from where I was living to come down here. Instead of going just straight to the city centre, just to walk this way...just to come and have a drink.

Interviewer:

Thank you so much!

PARTICIPANT: V4**INTERVIEWED: 24.07.2019 IN VIENNA****TRANSCRIBED: 26.07.2019****Interviewer:**

Could you please explain me what you wanted to represent on these photos?

PHOTO106**Interviewee:**

This is exactly the place where I sat down when I was in Vienna for the first time. And my application already went through and I got a letter of acceptance, and I had my flat already. It was the first time when I went to Vienna to register for my Master Programme. And I did not know anybody. I went just out to have a look at Vienna. And it was in the evening. I remember I was getting off Schwedenplatz, eating something and getting some ice-cream, and going down to this very place. And sitting down just admiring the view. So full of joy and happiness. And I was like: "oh my god I am going to

	study here". And Vienna is so beautiful. And I was having ice-cream and the weather was nice. It was a very nice summer night. It was just a very nice moment for me. When I think about the Danube or anywhere around this canal I always think about that place because I set right there on the edge. Eating my ice-cream and being super happy about that.
Interviewer:	When was that?
Interviewee:	It was in August 2017.
Interviewer:	For how long did you stay there?
Interviewee:	I remember sitting there for a really long time because I was really enjoying my ice-cream. I think I set there for a half an hour and even longer, 45 min maybe, being totally relaxed. When I think about that, while I am at the very stressy position right now, it really calms me down and really recalls me that moment of happiness and joy. It does not look spectacular. And looks very plane. And you are like: "What is this?". But for me, it is a kind of a special place.
Interviewer:	Do you remember how you took this place? Why this spot on the edge?
Interviewee:	I wanted to sit on the other side, so I went over the bridge and I was just sitting there because I thought that it just looks nicer. I just sit here. I had an ice-cream in my hand and I just wanted to sit somewhere soon. And it was closeby and looked really nice. There were a lot of people sitting around. I thought that I will just sit there as well, and enjoy my ice-cream, and have a look at the buildings. If you sit down you also have a really nice view over the top of the buildings on the other side. Those buildings are nicer because, I think, they belong to the first district. Then those on the other side belongs to the second district and hotels and everything that I do not like much (looking at them). I love the view over that old architectural style.
PHOTO107	
Interviewee:	At the beginning of my studies, I met a really good friend. I was a bit worrying starting a program because I am not super socially outgoing that I am going to people and trying to talk to them so it was really worrying for me. And also our program we started 25 people, so the chances that you find someone you really like and you click with are really low. So I was really worried about that. And then I met her and we clicked from the very first second. And I feel that I know her forever already. And I told her my big secrets already within the next three months. And we took a picture here. We took one day off. We had a really stressful semester, although the whole master programme was really stressful. But this was one day we took off and had a really nice day and went there for a walk. And we thought it would be nice to take our very first picture together. We took a picture here together. I think it even was a video where we were dancing, and a girl took a photo for us. We did not know here. So, the original picture is my friend and I are dancing here together. Having a really fun time.
Interviewer:	Is the mural the same?
Interviewee:	Yes, exactly.
Interviewer:	Did you go there back with your friend?
Interviewee:	Not so often, because as I said we really took a day off to do something nice because it was a very stressful programme. When I think about my friendship with her, this is the thing that I have in mind. Because it was the first picture we took together. It just marked a day of the great friend to me and it really meant a lot to me.
Interviewer:	Do you do graffiti?
Interviewee:	No, I have no clue how to do it...
Interviewer:	Do you do any kind of art?
Interviewee:	Not any longer, I really liked to draw but I have not a pursuit that any longer. Because I do not have time. Then there are other things that I value more

Interviewer:
Interviewee:

than that. Bringing more peace like reading...so I would rather do that...but in general, drawings and painting bring lots of fun to me as well. Occasionally I do it for a couple of days and I am really into it, but then I stop.

Why did you choose this particular mural?

We liked the colours and it is so bright. And this is just a nice motive I think. We thought that this looks pretty we want to have it here. Because usually, graffiti have these words that they trying to...that bubbly font and everything. And I do not like this kind of graffiti so much. But there it might be a word or so...it was more the colour scheme that we liked. It was not one of the typical graffiti.

PHOTO108

Interviewee:

I think it belongs to Adria but I do not know. We went there for our last meeting with class members. Almost all of us are finished now. Or finishing soon. And we went there for the last meeting. And it was just a really nice place. It was again a super nice summer night, and it was two weeks ago. It was very recent. Again, other pictures that I have taken represent more things that I did with people together because it is really important to me. This social component in it. So, sitting on the Danube, on my first day at the very first picture, there I was alone...but with other pictures, I think, have something to do with a social component.

Interviewer:

Why did you choose specifically this place for your final meeting with your classmates?

Interviewee:

We wanted to go to Tel Aviv but it was full. So, we went upstream. Okay, let's figure out something else. And there was a nice spot and we...we were like 10 people...so, we had to also find a spot where we can sit all together. It was not that easy but we found a nice place there.

Interviewer:

But why specifically the canal, because there plenty of other bars?

Interviewee:

Yes, true. But it just has nice feelings about sitting in the water and has nice scenery. One of our friends really wanted to try that Tel Aviv beach, because she heard so much about it. I was their ones and I already knew it. But I did not mind. The canal. I do not know...It is just nice scenery and a nice place. I like being in the water and I think we all do. Because I think it breaks this very concrete image where it is only buildings and cement...like here in the first district. Of course, there are some green and some trees but I think at the Donau canal you really have that kind of a little more of nature right at the city. This is what I like, this what attracts us to go there.

PHOTO109

Interviewee:

I photographed another side with there trees and shadow. It looks super nice, and I never recognized that part and I was like: "why I never have seen it whenever I been here?". Because it is very nice. Now when I see it...I want to grab a book, have a drink and sit down there to just enjoy life and read, and have a chill afternoon. So for me, it is in my bucket list after the first draft. Because I think that it really looks nice with the trees, and there is a shade

and there is a space. And you sit directly at the water which, I think, is really close well. Because normally whenever...I was living in Cologne before, 5 years. There are always fences and everything. You do not have that at Danube Canal, which is on the one side, must cause a lot of accidents, but it is also nice because you do not have it on your view and also you can just sit there directly to the water. Just really great I think. I think this is special about this as well.

Interviewer:

In Cologne, you have such a huge river, how do you feel about this size of the river?

Interviewee:

I mean the Danube is, of course, larger than this part, of course, there are parts where the Rhine is also smaller, so I know that places as well. I never

	<p>thought about it actually. From the feeling right now when you asked me about this, I think it invites people more to sit down, to have these cafes and everything than at the Rhine, because there is no so much direct to the Rhine, especially so close to the water. But at the Rhine, we also have summer terraces which are rather new. I think it is also a couple of years old. When I moved there they were not there, so this is four-five years old. And there we also sat down a lot of the time. I cannot say that we never do it in Cologne, but I think here [in Vienna] it is more inviting people to sit down and have a drink at one of the cafes that are nearby - Adria or Tel Aviv, or whatever...than in Cologne, where it is more like bring your own drinks and you meet with people, while here it is more like going to...going there for cafes. Maybe that is why I never saw that stairs on that side. Because I only go there with my target in view. I know "ok, we are going to Tel Aviv or we going to Adria". And at the Rhine, I was also just walking for my pleasure.</p>
Interviewer:	Do you mostly use this side?
Interviewee:	Yes, exactly.
Interviewer:	On which side of the canal do you live?
Interviewee:	I live on the other side. At 7th district.
PHOTO110	
Interviewee:	I took this one because it shows the scenery and whenever I think of Vienna I have this skyline. For me, this is a skyline of Vienna. When I think about Vienna I think about this skyline. It has hills and mountains, whenever you want to go. It is very small but I like this skyline. I always think about this when I think of Vienna, also with the Danube. This is also the thing when I was sitting there on the first day with my ice-cream. I saw it, but now I took it from here, 100 meters further because you can see the skyline better on the picture. This is also a skyline that I was looking at.
PHOTO111	
Interviewee:	Urban Gardens. I think I really like this urban gardens trend. I think this is really cool that this is right in the middle of the city and I love that. I think it adds so much value to the ground where it is built on. I like that there is a garden scenery. That this is more trendy again and that it is giving more attention to sustainability and the value of food. Because you really see how it is growing. Otherwise, you just go to a supermarket and buy it. It just adds a lot of value and just shows how important, and long it takes and how valuable food is.
Interviewer:	Do you visit other urban gardens in Vienna?
Interviewee:	The one near my place, I like to walk there when I go to the bus. I always prefer to take a route next to it because of the scenery and the plants. I was born and raised in a very small town in Germany in the rural area where we have only green scenery and there is no city. It just gives me a little bit of that.
PHOTO112	
Interviewee:	Tel Aviv. I think this is the place where we went most often. And it was also one of the first impressions I got at Danube Canal when we went there to sit together in the evening. I think this is very specific for the Danube Canal. If I think about the canal and all the cafes, this is the first one that comes to my mind. The Tel Aviv. and everybody knows it. Adrian and other I got to know later.
Interviewer:	So, it is like a landmark for you?
Interviewee:	Yes, exactly.
Interviewer:	You told that mainly you go to the cafes here. Have you ever brought your drinks to sit on the edge?
Interviewee:	Not really. I did it in Cologne a lot of the times but I have never done it here, to

	be honest.
Interviewer:	Have you thought about it?
Interviewee:	I thought. Last time we came here and there were many people sitting on the edge of course. And I thought that we can also do this. But maybe because this is not super closeby for me that I only go there when I have an aim to go to that very place. For example, my friend is living around the corner at Danube Canal and I think she goes here far more often just to have walk or so. This for me just more in my district. That is why if I am there we go there.
Interviewer:	How often do you go there? Every week?
Interviewee:	No no no, I think during two years, I have been there four times. So, not very frequently, because also it is very expensive. And I have lots of nice cafes and bars in 7th district, so we go there a lot of the times as well.
PHOTO113	
Interviewee:	This is the same I think. It is also together [community garden]. Doing it together. One has little plants here. But having them as a group of people, and being a community. I would not expect urban gardening at places like this in Cologne. I would not think of somebody getting permission, first of all, to have it there. And also doing it because maybe people would destroy it or steal them. And this just does not happen here. Also, the city is allowing people to have urban gardens at these places.
PHOTO114	
Interviewee:	There I tried to picture U4 because this is the line that brings me to my best friend here. She lives near Friedensbrucke, this is right that way. So, quite often I changed at Schottenring to U4 here. And then take U4 to Friedensbrucke. And it is not completely...and there is no wall that you can see through or a measure, you can see a little bit of scenery when you drive by with U4 which I really like. And this is also a connection to my friend.
Interviewer:	This area, do you walk here?
Interviewee:	No, I just included it in the photo. I was trying to have that whole thing like that, so you can just also cut it. I like driving with U4 because you see a bit of graffiti and Danube. And green later. This is something that I really like there.
Interviewer:	Do you hang out in that green part of the canal?
Interviewee:	No, not that often. Which is really surprising because I really like the green, but there is no much shadow. It is a problem. And it is really difficult for me in the summertime. And in the wintertime, this is just too windy for me. Cause it is very cold. So, whenever I want to go to the green scenery I rather go to Kahlenberg directly and wonder.
PHOTO115	
Interviewee:	Schottenring, the connection again, like a connection to my friend and also U2 drives directly to Volkstheater. It is also a connection to home. This is my home station. Like whenever I see U2 somewhere whenever I am in Vienna I feel like I get home safe. Without looking when the next U-bahn coming or how I should go.
Interviewer:	Do you go here only by metro? Do you never walk?
Interviewee:	No. I mean I walk to the canal as well with a dog. I do not have a dog myself but sometimes I do dog sittings for a friend. And with her, I went to the Danube Canal as well. And I walked there from my home, from Volkstheater to there and up the stream. And it was really nice. And the dog is a bit crazy about the water. So, she tried to jump in which is not a good thing of course. So, that was a little problematic. I did not want to jump in. I did not want to do that. Not at that part of the Danube.
Interviewer:	But do you go often to the Old Danube?
Interviewee:	Yes, the Old Danube I often go swimming.
Interviewer:	More often than you go to the canal?

- Yes yes. So, I go...especially in the summertime. When days are like this. Today I had a meeting at 10:00 am. So I did not go, but normally I go there when it is hot like that every day. In the morning to swim. I take the subway to Donaustadtbrücke and there you can swim nicely.
- Interviewer:** **What time do you go back?**
- Interviewee:** I always go there for a quick swim. I stay there for a maximum of one hour. I go there at 8:00 in the morning and stay there maximum until 9:00, go home, take a quick shower and then I do my stuff. Like doing my things for the master thesis or anything else for the university. When I still had exams I went there every morning just to swim, to just cool down the cause in our apartment it just gets really really warm. This is a super nice old building, with nice architecture and high ceilings and everything. But it is really warm in the summertime. The sun shines directly on it, and especially, on my room. I am already really warm when I wake up. So, I just want to get out, have a swim, cool down. It makes me feel better during the day. It helps me really to stand during these hot days.
- Interviewer:** **As I understood, the canal for you is a place for socializing and you do not really go there by yourself. What about the canal, is it important for you as a waterbody?**
- Interviewee:** Yes, I would not want to live in a city that has no river. Because...I do not know, it is just a feeling. I could not live in a city with no river. I do not know why. It is probably stupid. It is just really a feeling. I would not feel comfortable. I would not live in a city where there is no river, at least a small one. It does not need to be the Danube or the Rhine, just a little river. I think it adds so much quality to life when you have water nearby. For example, in the Rhine, I even could not swim in there, but it just increases an attractivity of the city to me.
- Interviewer:** **When you stayed at the canal and Old Danube, did you pay attention to animals and fauna around you?**
- Interviewee:** I was very surprised that there is such a big fish in Old Danube. I was so impressed by that. Because I just realized a few days ago that I was a big fish at the place where I usually swim. And I was like "where you come from". Since when there is such a big fish here. Small ones you know, but big ones. I was really impressed by that. I like the green scenery but I did not pay much attention to kinds of trees.
- Interviewer:** **If at the canal will be no green patches, will it make any difference to you?**
- Interviewee:** Yes, I think this is super important. This is the reason why I took a picture with lots of green scenery. This is very important. And this is attracting me to that area even if I do not go there often, but I think this is very important, and I like that about the Danube canal. Greenery gives more nature and life.
- Interviewer:** **Thank you very much!**