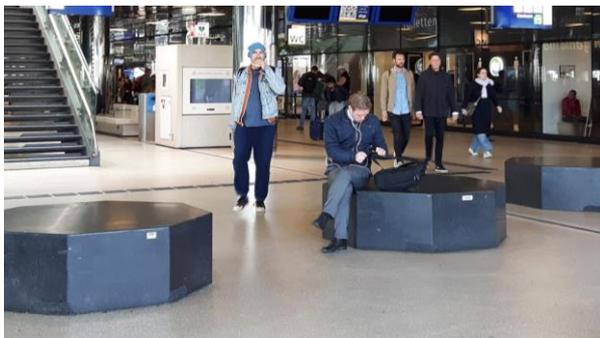


Concrete barriers and tourists' visual- and risk perceptions: The case of Amsterdam and Copenhagen



Concrete barriers and tourists' visual- and risk perceptions: The case of Amsterdam and Copenhagen

By

Daphne van der Pol

**A thesis submitted in partial fulfilment of the degree of
Master of Science at Wageningen University and Research**

Master thesis: Leisure, Tourism, and Environment

Thesis code: GEO-80436

Submission date: August 11th, 2019

Author: Daphne van der Pol

Student registration number: 940722660020

Thesis supervisor: Dr. ir. Martijn Duineveld

Thesis examiner: Prof.dr. E.H. (Edward) Huijbens

**Wageningen University and Research
Department of Environmental Sciences
Cultural Geography Chair Group**



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List of acronyms

Acronym	Meaning
C-VTAD	Counter-Vehicle Terrorist Attack Devices
CEP	Counter Extremism Project
CPTED	Crime Prevention Through Environmental Design
H	Hypothesis
ISIS	Islamic State of Iraq and the Levant
MEMRI	Middle East Media Research Institute
NOS	Netherlands Broadcasting Foundation
RQ	Main Research Question
SQ	Sub Research Question
SVOB	Stichting Veilig Ontwerp en Beheer
TSA	Transportation Security Administration
VSB's	Vehicle Security Barriers
ZETA	Visibility, Clarity, Accessibility, Attractiveness

Summary

This report was written as part of the Master of Science Program Leisure, Tourism, and Environment to gain the Master of Social Sciences at Wageningen University in the Netherlands. This study started by problematizing the many assumptions made on how concrete barriers affect cities, their inhabitants, and tourists. It seemed that scholars had no clear direction, no real consensus could be found, and that this subject has not (yet) been properly studied. As such, I aimed to better understand how concrete barriers create meanings and whether and how concrete barriers influence the visual- and risk perceptions of tourists in Amsterdam and Copenhagen. To guide this study, I narrowed the scope of this research, formulated a research question with its own three accompanying sub questions, and combined existing literature with new findings of this study. Throughout this study, links were made between the study's findings and findings in the literature, which showed that there was considerable overlap.

In this study, I believed it was important to think of theory as a lens that helps us see things clearly. Tourists use different lenses to see the same things differently (in this study the concrete barriers), argue differently, and finally create different meanings. I believe that tourists construct their own realities and truths according to their own interpretations. These 'truths' can be applied to a multi-faceted area such as the city landscapes (context) with concrete barriers whose users, the tourists, for example may see it as safe places that do not influence their feelings of security; or who may view it as insecure places that are potential targets for vehicle terrorist attacks. Within this study, I identified social constructivism as the most suitable approach to undertake this study, because it allows each person to develop their own views of the world and helped me to better understand how meanings were embodied in everyone's language and actions, how they were formed, and how they finally influenced someone's visual- and risk perception.

Multiple qualitative methods were applied in this study, namely semi-structured interviews, naturalistic observations, and a research diary, leading to 70 hours of conversations with 178 tourists, 7 hours of audio-recorded interviews with 23 tourists, 15.5 hours of observations, 9 hours of talking with professionals from the field, and finally, 71 pages of interview transcripts. This all was made possible by devoting 3 hours flying by plane (to Denmark) and 17 hours by train journeys. Within this study, 178 tourists were asked about their opinion about the surrounding. When the tourists had no conscious acquaintance about the concrete barriers, they would not be able to form visual- and risk perceptions in the first place, and therefore, they were not invited to take part in this study (149 tourists). When tourists had conscious acquaintance about the concrete barriers, meanings and perceptions were most likely to be formed and the tourists were invited to take part in this study (29). Unfortunately, not all interviews yielded substantial data due to language limitations, time limitations, and in some cases, lack of willingness to develop views in length or the reticence to talk about vehicle terrorism, leading to 23 interviews conducted. Some tourists in this study experienced feelings of fear, discomode, or embarrassment, when talking about vehicle terrorism, and either have withdrawn from the interview, talked from the third-person point of view, or gave short and non-detailed replies during the interview. This reticence to talk about vehicle terrorism showed me that normativity played an important role in this study. It showed to me that even when tourists have conscious acquaintance about the objects, each person will be or will not be influenced by normativity, when creating meanings and formulating risk- and visual perceptions. Within

this study, all the tourists observed the same objects, but all created different realities around the objects with their own meanings. Overall it can be stated that most tourists in this study, did not notice or observe the objects in the first place.

A relationship is often assumed in the literature between the objects and feelings of fear, anxiety, risk, public realm beautification, etc. The relationship and the idea that concrete barriers on our streets make people feel safer is usually taken as a given. This study showed that this relationship is much more complex and is clearly influenced by the way how the objects are situated and look in public space. For many tourists in this study, feelings of risk were highly connected to the context and the way how concrete barriers looked. This study found out that the appearance of the object can influence how someone perceives the object in a context. The color, shape, and material of a concrete barrier influence to what extent the object fits into a city landscape. Also, other circumstances of the object, like functionality, amount of barriers placed at one location, and whether the object is camouflaged or not, seemed to form unique settings of how the object in the context could be understood by the tourists. There seemed to be a sort of overall consensus between the tourists who did observe the objects, that concrete barriers need to have a function in a city landscape, rather than only act as a separate security device. This study found that concrete barriers are mostly used as a device to sit down on, use as a tool to take a photo, stand on, use as a playground, put bags on, or use as a marking point for navigation.

Within this study, a relationship was observed between the negative feelings of tourists and their position to surreptitiously embed the objects within the city landscapes. Some tourists in this study first mentioned how the objects provoked feelings of risk, fear, and annoyance and later indicated in this study how they are supporting the embedding of these objects within the city landscapes. Also, the appearance of the barriers triggered different memories for the tourists, either positive or negative ones, that for many of them also influenced the risk perceptions. Most of the tourists in this study perceived camouflaged barriers as less problematic than semi- and uncamouflaged barriers. This study found out, that camouflaging the objects can positively influence the visual- and risk perceptions of tourists and in the end, let some tourists feel safer. In this study, tourists more often experienced feelings of unsafety and risk at sites with uncamouflaged barriers than at sites with semi-camouflaged barriers or camouflaged barriers and experienced at sites with camouflaged barriers more public realm beautification in the city landscapes than tourists at sites with uncamouflaged barriers.

This study also showed that there are four different main positions towards concrete barriers, namely a negative position, impartial neutral position, conflicting neutral position, and a positive position.

Despite all, it is important to remember that formulating meanings and perceptions are intrinsic processes that are largely dependent on how someone constructs his or her own reality. Visual perception and risk perception are actually the least interesting topics in this study, considering that tourists associate objects all differently and thereby all create different perceptions. Concrete barriers are in the end not appreciated because they are camouflaged or nicely shaped, but through all those layers of meaning formed by the tourists.

This study marks an early step in researching the impact of concrete barriers to the visual- and risk perceptions of tourists. Given the value of tourism to the tourism industry and terrorism as one of the most significant threats to tourism, it is important that this topic will be further investigated. By better understanding the role of concrete barriers (objects) in city landscapes

(contexts), policy makers can be better informed about whether and how the future of concrete barriers should play a larger role in city landscapes. The knowledge based on this topic could be enriched by further research in different national contexts and by a quantitative study of the link between the perceived risk or perceived sight (caused by the concrete barriers) and implications for travel behavior and travel experience. Different international networks have already been set up in this study in Spain and Belgium, so it will be easier for future researchers to continue this study on international scale. The knowledge based on this topic could furthermore be enriched by further research on; the different normative assumptions that exist and are believed to influence the visual- and risk perceptions, the consequences of the use of animals on concrete barriers, the social uses of concrete barriers by night, and on new designs and social uses of concrete barriers.

If a local administration or policy maker decide that these measurements are important, and if they want to consider the wishes of those people who actually perceive them, then it could be recommended to implement these objects in a customized shape (e.g. sculptures, flower pots, or benches), with more natural materials (e.g. wood, plants, flowers, and water), happy, bright, and notable colors (e.g. blue instead of grey and black), and a useful function in society (e.g. to sit on). It is essential to not only endow the concrete barriers with value, but also to improve the concrete barriers' attractiveness and social acceptance. By more considering the appearance of the objects and better building the objects into the city landscapes, the objects will most likely positively influence the visual perceptions and risk perceptions of tourists and in the end, let tourists feel safer.

Keywords: cultural studies; risk perception, visual perception, concrete barriers, vehicle terrorism, vehicle terrorist attacks, counter vehicle terrorist attack devices, tourism studies

Acknowledgements

At first, I want to take a moment to express my gratitude to my supervisor, Martijn Duineveld, who was patiently guiding me in this long journey. Martijn was always there to challenge me in a positive way and to boost me up when I was struggling.

I also would like to thank Martin Trandberg Jensen, from the Aalborg University in Copenhagen, who inspired me with his lecture on staging urban tourism: A tale of concrete barriers and fortress urbanism, to use Copenhagen as one of the case studies for my research. Martin provided me with interesting literature and a very inspiring brainstorm session in Copenhagen. Without Martin, this thesis would have ended up totally different.

A big thanks to Paul van Soomeren and Randy Bloeme, DSP-groep and SVOB, for taking time to talk with me about my research. I especially appreciate your effort for connecting me to others in your networks and to share the results of my thesis in your newsletter and in the Young CPTED Professionals network.

I also thank the anonymous participants in this research from the municipality of Amsterdam, municipality of Antwerpen, and the Guardia Urbana de Barcelona 73375, whose insightful comments and suggestions have greatly improved this research.

To all the interviewees who played an essential role in this research, I send my highest gratitude. I greatly appreciate the assistance you all have provided me.

I thank to every smiles, hugs, laughs, foods, picnics, and stories, that all my friends in Copenhagen and Amsterdam gave to me. They are all great individuals who I would like to show my gratitude to. You all helped me to find enthusiasm to conduct my field research in Copenhagen and Amsterdam.

Finally, without the support of my girlfriend and family, I would not have been able to complete this thesis research. I especially would like to thank them for their support during a difficult period of my life. When my dad was diagnosed with some rare bacteria and was fighting for his life in intensive care and I was taking care of my grandmother with dementia in hospital and finally moved her to a nursing home, the time that I truly found myself on an emotional roller coaster during this thesis, they were there to support me and to help me find the strength to complete this thesis.

Daphne van der Pol, Wageningen, August 11th, 2019

1. Introduction

"To achieve maximum carnage, you need to pick up as much speed as you can while still retaining good control of your vehicle in order to maximize your inertia and be able to strike as many people as possible." (MEMRI, 2017).

In 2017, Islamic State of Iraq and the Levant [ISIS] released an article and video titled "We Will Surely Guide Them to Our Ways". The article and video, containing above quote, featured different fighters repeatedly calling on Muslims living in the West to carry out attacks on potential western institutions (Sterling & Jamjoom, 2010). The video suggests carrying out attacks, using large double-wheeled trucks, to target festivals, parades, and outdoor markets, and specifies the ideal type, weight, and speed of a truck needed for a **vehicle terrorist attack** (MEMRI, 2017).

In recent years, there has been a dramatic increase in the frequency of vehicle terrorist attacks around the globe. The Counter Extremism Project [CEP] (2019), documented at least 39 vehicular terrorist attacks since 2006, collectively resulting in the deaths of at least 197 people and 1,064 injuries. As a result, authorities have sought to use defensive and military strategies to 'design out terrorism' against identified 'at-risk' sites. Security measures, like Counter Vehicle Terrorist Attack Devices [C-VTAD], have been increasingly introduced. This thesis investigates the influence of concrete barriers, one of the many types of C-VTAD, on the visual- and risk perceptions of tourists in Amsterdam, the Netherlands and Copenhagen, Denmark. To better understand how concrete barriers create meanings and whether and how concrete barriers influence the visual- and risk perceptions of tourists, I aim in this study, as I will argue in the next paragraphs, to elucidate the process of meaning construction of concrete barriers, visual perceptions, risk perceptions, and of the interrelationships between these concepts, of tourists in Amsterdam and Copenhagen.

Within the past years, there has been a rise in both terrorist attacks (Bac et al., 2015; Korstanje & Clayton, 2012) and international tourism (Cooper & Wahab, 2005). The freedom to move from one place to another, within a country or between countries, made travel easier and helped the tourism industry to become one of the largest and fastest- growing economic sectors in the world. It is argued by Richardson (2013), that this change in mobility also invited more threats of crime and (transnational) terrorism over the last years. Transnational terrorism refers to when an incident in the attacked country is carried out by essentially non-state actors or when the incident concerns mostly perpetrators or victims from another country (Goldman & Neubauer-Shani, 2017). Since the 1960's, when globalization truly developed, the beginning of the era of transnational terrorism also started. The tourism industry has been found to be inherently vulnerable to terrorist attacks as witnessed in Europe in the past decade; Madrid (2004), London (2005), Paris (2015), Brussels (2016), Nice (2016), Berlin (2016), Stockholm (2017), and Barcelona (2017). In 2017, there were 33 attacks that failed, were prevented, or were carried out in Europe– as opposed to 13 in 2016 (Gadd, 2018). Terrorists often choose to attack in tourist centers and so the tourism industry continues to be a highly attractive target

for terrorists (Alexander, 2004). In the period from 1970 to 2016, 472 incidents were targeting tourists (Global Terrorism Database, 2019). More than half of the terrorist attacks on tourism destinations occurred in the Middle East (54%), with Europe the second most prevalent (27%). According to Howie (2014), of the attacks targeting tourism locations, 71% of the victims were tourists and almost half of the attacks in tourism locations were carried out in urban environments.

In the recent years, there has also been a dramatic increase in the frequency of **vehicle terrorist attacks** around the globe. A vehicle terrorist attack, also called vehicle ramming attack, is a form of attack in which a perpetrator, usually a homegrown terrorist or terrorist cell, also called a lone wolf, intentionally aims a motor vehicle at a target with the aim to inflict fatal injuries or property damage (Transportation Security Administration [TSA], 2017). According to TSA (2017), vehicle terrorist attacks are considered unsophisticated, in that a perpetrator could carry out such an attack with minimal planning and training. Considering the dramatic increase in the frequency of vehicle terrorist attacks around the globe, I believe that for people operating in the tourism industry, and for the municipal and national governments for whom tourism safety is a priority, the threat of homegrown terrorists and vehicular terrorist attacks, requires a security response. This response often involves a complex array of (visible) security systems and practices such as fences, **concrete barriers**, bollards, screening checkpoints, and cameras in urban areas (Howie, 2014). As a result, these defensive countermeasures are becoming an ever more common feature of city landscapes of the world's major cities (Dalgaard-Nielsen, Laisen & Wandorf, 2016) to protect civilians and tourists by making attacks costlier for terrorists or by reducing their likelihood of success (Sandler, 2015). It is argued by Eckes (2018), that it is not easy to prevent vehicle terrorist attacks in urban spaces, as they take place in a space of daily life where pedestrian and traffic zones meet, public transport must function, goods must be delivered to shops, and streets must be accessible to emergency services. One of the possible ways to protect pedestrians is by setting up (matrix-based) C-VTAD, like concrete barriers or bollards, to prevent vehicles from accelerating into populated areas (CEP, 2019). Those barriers should be designed to prevent large vehicles from suddenly entering a pedestrian zone, as well as to enrich urban space (by concealing their primary task). It is hereby important to find the right balance between 'subtlety' and 'safety' (Coaffee & Bosher, 2008). Nowadays, planners and designers are challenged to be creative and find alternative or 'softer' solutions to militarized urban design. The response, as some have noted, has been increasingly to camouflage C-VTAD and surreptitiously embed them within the city landscape, so that to the urban public, they do not obviously serve a security purpose (Coaffee et al., 2009). It is argued by Coaffee, O'Hare, and Hawkesworth (2009), that in this way, the concrete barriers provide perimeter security in a manner that does not impede the city's commerce and vitality, or excessively restrict or impede operational use of sidewalks or pedestrian mobility.

In academic literature (Coaffee, 2005; Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Newman, 1972; Graham, 2006) concrete barriers are considered to be more than just innocent technical devices. Some critics argue how concrete barriers at public places provoke superficial feelings of safety and security by relieving immediate anxiety (Coaffee, 2005; Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Newman, 1972). While other critics argue how concrete barriers are not appealing to the public eye and instead of provoking mutual trust, create undue anxiety and provoke feeling of insecurity and suspiciousness by constantly reminding the public of a presumed threat from terrorism (Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Graham, 2006).

Coaffee, O'Hare, and Hawkesworth (2009) categorize C-VTAD in 'overt', 'stealthy' and 'invisible' security measures. The implementation of mainly overt security measures is considered important to reduce social risk by creating a situation that increases stability and security (Connell, 2009).

As can be seen from the literature, many scholars focus on how concrete barriers become an ever more common feature of city landscapes and how they affect cities, their inhabitants, and tourists. Different studies described how concrete barriers provoked certain feelings and how they influenced public spaces. Although many assumptions are made on how concrete barriers affect cities, their inhabitants, and tourists, it seems that scholars have no clear direction and that no real consensus can be found. It seems that this subject has not (yet) been properly studied. It indicates to me that, for example, the fear-inducing effect of concrete barriers is rather assumed than obvious and that we actually do not know if concrete barriers create a hospitable and welcoming urban space. To me, it is unclear what feelings concrete barriers provoke, if their primary task needs to be concealed in urban spaces or not, and how they create meanings. I am curious if tourists associate the concrete barriers with vehicle terrorist attacks and how they influence tourists' visual- and risk perceptions. In my opinion, it is important to conduct this study to better understand how concrete barriers create meanings and whether and how concrete barriers influence the visual- and risk perceptions of tourists. Empirically investigating these devices may bring new insights. This study will attend to the current indistinct empirical knowledge through interviewing and observing tourists and their behavior towards concrete barriers. By creating a better understanding of this topic, this study will contribute to both the scientific realm and the social realm. This study also contributes to assessing the practical question of whether the future of concrete barriers (objects) should play a larger role in city landscapes (contexts). By better understanding the perceptions of tourists of concrete barriers, policy makers can be better informed about whether and how the future of concrete barriers should play a larger role in city landscapes. This is important for the tourism industry as terrorism is one of the most significant threats to tourism. If more is known about the visual perceptions of tourists related to the visual properties of the objects and the contexts, as well as the risk perceptions related to the objects, then a more informed judgement about its current state can be made. This helps one in making a more refined assessment of the different kind of perceptions on concrete barriers.

Amsterdam and Copenhagen are regarded as the perfect places to explore this study. Several arrests of terrorism suspects in 2018 and 2019 in the Netherlands, show that the terrorism threat in the Netherlands is real. Even though none of these crimes were directly related to vehicle terrorist attacks, another incident happened back in 2017 with a vehicle at the Stationsplein of Amsterdam Central train station (AT5, 2017). It is believed that this action motivated the municipality of Amsterdam to change the public space so that it remains safe, pleasant, and livable. In 2018 only, the municipality of Amsterdam budgeted one million Euros for the implementation of anti-terrorism measures at 18 places throughout the city (Gemeente Amsterdam, 2017). Since the threat for terrorism is high in the Netherlands and tourism arrivals are rising, several concrete barriers have been placed to protect the people in urban public places in Amsterdam. Until now, no studies have analyzed the tourist perceptions of threats from terrorism and these devices in the Netherlands. Therefore, it will be interesting to research the visual perceptions (visual properties of object and context) and risk perceptions of tourists in the Netherlands related to the concrete barriers (objects).

Despite no major terrorist attack has taken place in Denmark, the country has experienced various acts of violence targeting innocents and studies have stated that the feelings of Danes provoked by C-VTAD are mixed. Although several scholars (e.g. Lindekilde & Sedgwick, 2012; Trygfonden, 2011; Dalgaard-Nielsen, Laisen & Wandorf, 2016) have analyzed the community perceptions of threats from terrorism and C-VHTD devices in Denmark, no research was carried out on the perceptions of tourists regarding terrorism and C-VTAD in Denmark and regarding concrete barriers in specific. Therefore, it will be interesting to create an understanding about whether and how concrete barriers influence the visual- and risk perceptions of tourists in Copenhagen.

Accordingly, the objective of this study is to seek a further understanding of the influence of concrete barriers on the visual- and risk perceptions of tourists in Amsterdam and Copenhagen. Since I believe that tourists construct their own realities and truths according to their own interpretations, I will keep in mind a social constructivist approach. In this study, I aim to elucidate the process of meaning construction of concrete barriers, visual perceptions, risk perceptions, and of the interrelationships between these concepts, of tourists in Amsterdam and Copenhagen. I am interested in how tourists give meaning to, or in other words, attempt to make sense of or to interpret their experience with (Schwandt, 1994), concrete barriers and how this relates to other meanings. Therefore, I will try to clarify what and how meanings are embodied in the language and actions of this study's respondents. The earlier mentioned assumptions of the scholars will **only** be used as a starting point for this qualitative study and offer a way of seeing, organizing, and understanding the perceptions (Charmaz, 2003). In this study, the assumptions will be considered as background ideas that inform the overall research problem of this study and offered help by developing suppositions as a starting point for further investigation (hypotheses [H]):

- H1: Concrete barriers do not influence the visual- and risk perceptions of tourists in Amsterdam and Copenhagen.
- H2: Only camouflaged concrete barriers provoke feelings of safety and security.
- H3: Uncamouflaged concrete barriers look ugly but provoke feelings of safety and security.
- H4: Concrete barriers provide public realm beautification.

1.1 Research questions

To fulfil the aforementioned scientific objective, this study will answer the following main research question [RQ] and sub questions [SQ]:

RQ 1: What is the interrelationship between concrete barriers, visual perceptions, and risk perceptions, among tourists in Amsterdam and Copenhagen?

- SQ 1: How do tourists in Amsterdam and Copenhagen observe and use concrete barriers?
- SQ 2: How do concrete barriers influence the visual perceptions of tourists in Amsterdam and Copenhagen?
- SQ 3: How do concrete barriers influence the risk perceptions of tourists in Amsterdam and Copenhagen?

1.2 Outline of thesis report

This thesis report is structured as follows: the first chapter, the introduction, provides information about the scientific objective, relevance of this study, hypotheses, and research (sub)questions. Chapter two provides an introductory overview of the rise of terrorism, terrorism's impact on tourism, vehicle terrorist attacks, C-VTAD, and concrete barriers in specific, from a scientific perspective. In chapter three the focus is narrowed down to the main concepts of this study; perception, visual perception, and risk perception. Chapter four describes the methodology of this study and contains an extensive sub chapter about the context of this study (Amsterdam and Copenhagen). Chapter five describes the results of the conducted interviews and observations within this study and within chapter six an analysis is presented. In chapter seven, the study's findings will be linked with those of others as presented in chapter two. Within chapter eight, the main research question and its sub-questions will be answered. This chapter also presents suggestions for future research and the practical applicability of the findings of this study. Chapter nine describes recommendations for policy makers.

2. The story of vehicle terrorism, concrete barriers, and city landscapes

This study seeks a further understanding of the influence of concrete barriers on the visual- and risk perceptions of tourists in Amsterdam and Copenhagen. To better position this study, this chapter provides an introductory overview with scientific background literature on the rise of terrorism, terrorism's impact on tourism, vehicle terrorist attacks, C-VTAD, and concrete barriers in specific.

2.1 Rise of terrorism

Within the past years, there has been a rise in both terrorist attacks (Bac et al., 2015; Korstanje & Clayton, 2012) and international tourism (Cooper & Wahab, 2005). The freedom to move from one place to another, within a country or between countries (made possible by globalization) made travel easier and helped the tourism industry to become one of the largest and fastest-growing economic sectors in the world. This change in mobility also invited more threats of crime and (transnational) terrorism over the last years (Richardson, 2013). In the academic literature (Corbet et al., 2019; Jongman, 2017), terrorism can be considered as 'the creation of fear either by an act of violence or by threatening the destination with an act of violence, that causes disruption to the tourism flows, infrastructure and overall operations'. It exists in many differing forms. Transnational terrorism refers to when an incident in the attacked country is carried out by essentially non-state actors or when the incident concerns mostly perpetrators or victims from another country (Goldman & Neubauer-Shani, 2017). Since the 1960's, when globalization truly developed, the beginning of the era of transnational terrorism also started (Sandler, 2015). As you can see in figure one, transnational terrorism attained its highest annual totals in 1979, 1991, 1994, 1997, 2001, 2006, 2012 and 2016.

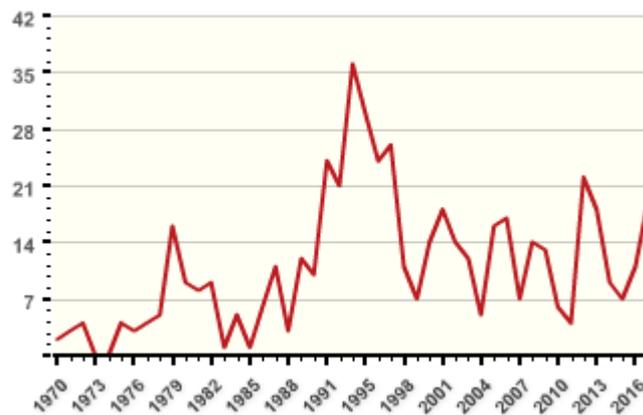


Figure 1: Global Terrorism Database terrorist incidents targeted on tourists per year, 1970-2016 (Global Terrorism Database, 2019).

The beginning of the 21st century has seen some major terrorist attacks in different parts of the world; New York (2001), Madrid (2004), London (2005), Boston (2013), Paris (2015), Brussels (2016), Nice (2016), Berlin (2016), Stockholm (2017), and Barcelona (2017). Analyzing recent terrorist attacks like the coordinated terrorist attacks in Paris; coordinated suicide bombings at Brussels Airport and at a metro station; and the devastating truck-attack that was deliberately driven into crowds in Nice and Barcelona, show the many different forms of terrorism (Corbet et al., 2018).

2.2 Terrorism's impact on tourism

According to Baker (2014), international terrorism and tourism are unexpectedly connected via their mutual characteristics such as both crossing national borders, both involving citizens of different countries, and both utilizing travel and communications technologies. The tourism industry has been found to be inherently vulnerable to terrorist attacks as witnessed in Europe in the past decade; Madrid (2004), London (2005), Paris (2015), Brussels (2016), Nice (2016), Berlin (2016), Stockholm (2017), and Barcelona (2017). In 2017, there were 33 attacks that failed, were prevented, or were carried out in Europe— as opposed to 13 in 2016 (Gadd, 2018). The impact of terrorism on the travel and tourism industry can lead to unemployment, homelessness, deflation, and many other social and economic consequences (Baker, 2014).

Terrorists often choose to attack in tourist centers and so the tourism industry continues to be a highly attractive target for terrorists (Alexander, 2004). In the period from 1970 to 2016, 472 incidents were targeting tourists (Global Terrorism Database, 2019). According to Howie (2014), more than half of the terrorist attacks on tourism destinations occurred in the Middle East (54%), with Europe the second most prevalent (27%). Of the attacks targeting tourism locations, 71% of the victims were tourists and almost half of the attacks in tourism locations were carried out in urban environments (Howie, 2014). According to Goeldner and Ritchie (2009), terrorists have four main reasons to attack in urban tourist centers: (1) tourism is often at the center of the media attention (terrorists seek publicity), (2) an attack is a shock to the entire economy (many national economies depend highly on the tourism industry), (3) tourist attractions represent the identity of a country (e.g. museums), and (4) places visited by tourists provide inconspicuousness to the terrorists, because the police does not know the motivation of those who visit.

The rise in terrorism poses one of the greatest threats to both international and domestic tourism, influencing tourists' travel risk perceptions, travel decision-making, and feelings of security and safety (Korstanje & Skoll, 2014). Risk perception determines whether a tourist feels safe on his trip. Compromises in security and safety at a destination can negatively influence tourists' risk perception as the tourist's individual perception of risks mostly influence the destination choice (Karl & Schmude, 2017). After a terrorist attack, the image of a city, country, or destination can be damaged and can provoke fear in potential tourists. Tourists may avoid the place and a tourism crisis can develop (Sönmez, Apostolopoulos, & Tarlow, 1999). The study in risk and travel decisions of Dolnicar (2005) showed that 46% of the respondents cited terrorism (as opposed to war at 18%) as an influence on their travel behavior. Some tourists who perceive terrorism risk in one country tend to presume the entire region to be risky and attribute this threat of risk to the neighboring countries which are not directly affected by terrorism (Baker, 2014). Some tourists become more reluctant to move freely in public places due to a fear of attack (Bassil, 2014), try to avoid the use of public transportation, as these places are prone to terrorist attacks (Adeloye & Brown, 2018), or experience an enormous psychological consequence, causing feelings of anxiety and fear in their dailies lives or while traveling (Cavlek, 2002). When risk makes a destination to be perceived as less safe, the potential travelers can pursue their travel plans, change their destination choice, or modify their travel behavior (as cited in Reisinger & Mavondo, 2005). On the other hand, terrorist attacks on tourism destinations can also have positive consequences. Korstanje and Clayton (2012) mention that some travelers have a special interest in visiting places that are related to terrorist attacks (dark tourism), for example the

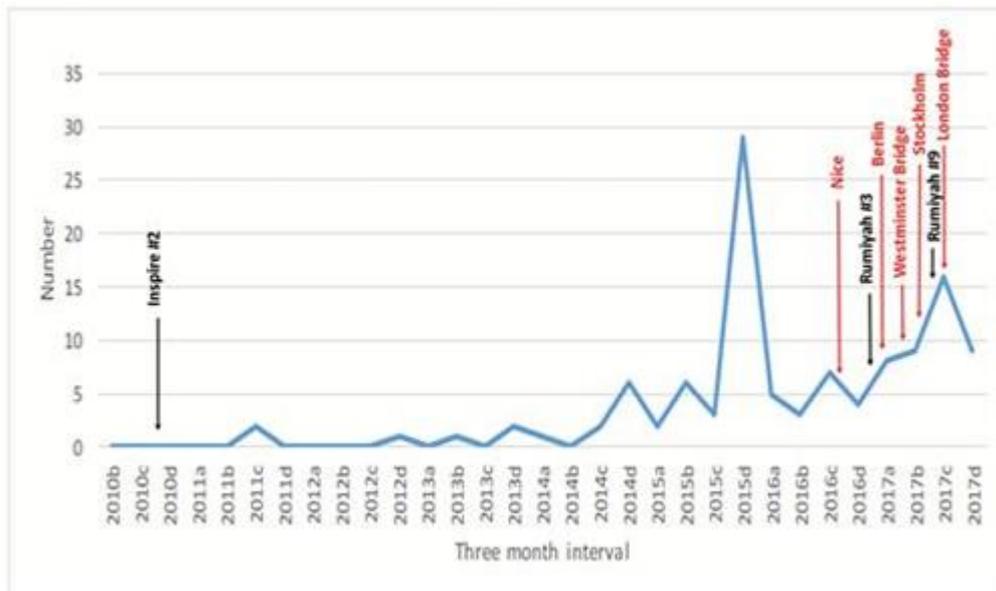


Figure 3: Vehicle ramming attacks by three-month intervals, 2010–2017 (Miller & Hayward, 2018).

A vehicle terrorist attack, also called vehicle ramming attack, is a form of attack in which a perpetrator, usually a homegrown terrorist or terrorist cell, intentionally aims a motor vehicle at a target with the aim to inflict fatal injuries or significant property damage (TSA, 2017). According to TSA (2017), vehicle terrorist attacks are considered unsophisticated, in that a perpetrator could carry out such an attack with minimal planning and training. Attacks by homegrown terrorists continues, particularly in urban public spaces and other soft targets (TSA, 2017). Examples of this include the attack in Nice, in which a Tunisian national drove a truck into a Bastille Day festivities parade, killing 86 and in Germany, where an ISIS-claimed truck attack killed 12 innocent people in a crowded Christmas market in Berlin. It is likely that terrorist groups will continue to encourage aspirant attackers to carry out more vehicle-ramming attacks, because these types of attacks minimize the potential for premature detection and could cause mass deaths and injuries if successful (TSA, 2017). Terrorists have carried out attacks using vehicles in a wide range of Western countries, including the United States, United Kingdom, France, Germany, Sweden, Spain, and Belgium (TSA, 2017). CEP (2009) has documented at least 39 vehicular terrorist attacks since 2006, collectively resulting in the deaths of at least 197 people and 1,064 injuries.

2.4 Counter-vehicle terrorist attack devices

For people operating in the tourism industry, and for the municipal and national governments for whom tourism safety is a priority, the threat of homegrown terrorists, vehicular terrorist attacks, and terrorism in general, requires a security response. According to Coaffee (2005), since the early 1970s targeted urban authorities have sought to use defensive and military strategies to 'design out terrorism' against identified 'at-risk' sites. In time, security measures, similar to those used to 'design out crime', have been increasingly introduced, including physical barriers to restrict access and advanced surveillance techniques (Coaffee, 2005). This often involves a complex array of (visible) security systems and practices such as fences, concrete barriers, bollards, and cameras in urban areas (Howie, 2014). Coaffee, O'Hare, and Hawkesworth (2009) constructed a continuum that identifies three types of visibility of security features; 'overt', 'stealthy' and 'invisible' (as represented in figure 4). The first, overt security features, are designed to be obtrusive and clearly serve as a military purpose like fortress

architecture or target hardening. Secondly, stealthy security features are visible, but often not identifiable to the lay public as being primarily for security, like bollards, barriers, and ornamental security features. At last, invisible security features, are hidden and ensure that the public does not acknowledge them, like tiger traps and sacrificial facades (Coaffee, O'Hare, and Hawkesworth, 2009). These defensive countermeasures are becoming an ever more common feature of city landscapes of the world's major cities (Dalgaard-Nielsen, Laisen & Wandorf, 2016) to protect civilians and tourists by making attacks costlier for terrorists or by reducing their likelihood of success (Sandler, 2015).

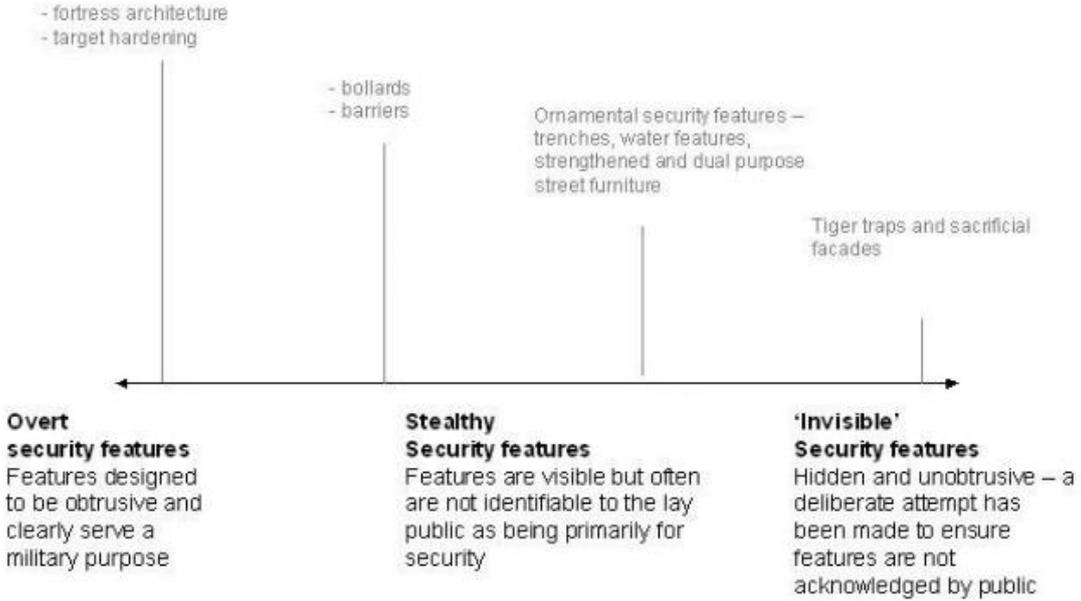


Figure 4: An indicative spectrum of visible security features (Coaffee, O'Hare, & Hawkesworth, 2009).

Eckes (2018) argues that it is not easy to prevent vehicle terrorist attacks in urban spaces, as they take place in a space of daily life where pedestrian and traffic zones meet, public transport must function, goods must be delivered to shops, and streets must be accessible to emergency services. CEP (2019) argues that one of possible ways to protect pedestrians is by setting up (matrix-based) vehicle barriers to prevent vehicles from accelerating into populated areas. Those barriers should be designed to prevent large vehicles from suddenly entering a pedestrian zone, as well as to enrich urban space (by concealing their primary task). It is important to aim for creating hospitable and welcoming urban spaces, which facilitate interactions between strangers, give opportunities for shared experiences and reinforce a common sense of belonging. Thereby, it is important to find the right balance between 'subtlety' and 'safety' (Coaffee & Bosher, 2008). Nowadays, planners and designers are challenged to be creative and find alternative or 'softer' solutions to militarized urban design. The response, as some have noted, has been increasingly to camouflage C-VTAD and surreptitiously embed them within the city landscape, so that to the urban public, they do not obviously serve a security purpose (Coaffee et al., 2009). It is argued by Coaffee, O'Hare, and Hawkesworth (2009), that in this way, the C-VTAD provide perimeter security in a manner that does not impede the city's commerce and vitality, or excessively restrict or impede operational use of sidewalks or pedestrian mobility. Examples are the security balustrade along Whitehall, London, England (as represented in figure five), the camouflaged concrete barrier in Nyhavn, Copenhagen, Denmark (as represented in figure six), the giant concrete letters at Arsenal Football Club in England (as represented in figure seven), and the golden concrete barriers and bollards in New York (as represented in figure eight).



Figure 5: Security balustrade along Whitehall, London, England (Coaffee, O'Hare, & Hawkesworth, 2009).



Figure 6: Camouflaged concrete barrier in Nyhavn, Copenhagen, Denmark (TagTomat, 2018).



Figure 7: Giant concrete letters at Arsenal Football Club in England (Dominic Casciani, 2016).



Figure 8: Hanging out on concrete barriers and bollards in New York (Marvel Architects, 2005).

To sum up, there are many types of C-VTAD that either visible or invisible to the public eye, categorized in 'overt', 'stealthy' and 'invisible' security measures. Since overt- and stealthy security features are most visible to the public eye and are likely to influence the city landscape, this study will only focus on concrete barriers, either with or without camouflage.

2.5 Concrete barriers

In academic literature (Coaffee, 2005; Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Newman, 1972; Graham, 2006) concrete barriers are considered to be more than just innocent technical

devices. Some critics state how concrete barriers at public places provoke feelings of safety and security (Coaffee, 2005; Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Newman, 1972; Adeloje & Brown, 2018). This form of counter-terrorism measures helps to design out crime and create defined areas of influence and safety (Newman, 1972). According to Dalgaard-Nielsen, Laisen and Wandorf (2016), the concrete barriers can contribute to a superficial feeling of safety and security by relieving immediate anxiety.

While concrete barriers may surely provoke feelings of security and safety, several scholars, by contrast, argue how the barriers help to provoke feelings of undue anxiety and feelings of insecurity and suspiciousness by constantly reminding the public of a presumed threat from terrorism (Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Graham, 2006). Dalgaard-Nielsen, Laisen, and Wandorf (2016) criticize that concrete barriers only create differentiated zones of risk and security and are not only implemented to protect citizens, but to also control them through a manipulation of threat perceptions. They state that the barriers do nothing to protect against terrorist attacks in general and only convey a false sense of safety and security, because they do not help to stop terrorist attacks like suicide bombers wearing explosive belts or attacks by aircrafts (Dalgaard-Nielsen, Laisen, & Wandorf, 2016). Graham (2006) also describes how concrete barriers provoke feelings of anxiety and insecurity by arguing that concrete barriers only produce permanent anxiety and terrorist fear around every day urban spaces, that previously tended to be perceived as safe. The concrete barriers can also provoke neutral risk feelings, functional risk feelings, or place risk feelings (Roehl & Fesenmaier, 1992). The risk neutral group does not consider their destination to involve risk. The functional-risk group considers the possibility of mechanical-, equipment-, and organizational risks. The place-risk group perceives tourism and traveling within the destination as risky (Baker, 2014).

All the different feelings related to risk can exist due to many inward- or outward factors like; past experiences with terrorist attacks, conflict proximity, tourist destination image, social interaction, influence of travel agents, and media information exposure (Uriely, Maoz, & Reichel, 2007). Uriely, Maoz, and Reichel (2007) identify two types of risk rationalizations; inward- and outward oriented rationalization. Inward oriented rationalization reduces the perceived risk of the visited tourist destination by stressing the safety within the destination and outward-oriented rationalization by emphasizing the terrorism-related risks, which exist elsewhere. These feelings of risk and rationalization are influenced by what information is most salient or available to an individual (Costa-Font & Gil, 2009; Ferrer & Klein, 2015). Risk is often influenced by the frequency with which a threat is represented in media exposure (Slovic, 1987). Seabra, Abrantes, and Kastenholz (2014) and Flight and van Dijk (2002) also recognize the impact of media as an important indicator of a tourist's image, as media consumption appears regularly as a possible explanation for feelings of insecurity. Tourists' perceptions on safety is also influenced by someone's culture, personality, and motivation to travel (Reisinger & Mavondo, 2006). Culture has an important influence on the perception of travel safety, personality on the perception of terrorism risk and travel anxiety, and motivation on the perception of travel safety and travel anxiety (Reisinger & Mavondo, 2005). This highlights to me, that all the respondents of this study will be in the same context (city landscape), but may perceive the concrete barriers and thereby, the feelings of risk, all differently. Even though it is important to keep in mind keep that someone's culture, personality, and motivation to travel, often influence someone's perceptions, these factors do not form the main research topic of this study. Within this study, I am especially interested in how the objects provoke feelings of risk to the tourists, or in other words, how the tourists attempt to feel about the concrete barriers, and not in what factor or mechanism influenced their feeling.

In this study, city landscape is closely related to the object, the concrete barrier itself, that is located in a certain **context** that is perceived at the time of investigation. Therefore, circumstances of the city landscape itself form unique settings of which the object can be understood by tourists. City landscapes, also called urban spaces, in tourist zones within cities, are characterized by a concentration of tourist related land uses, activities, and visitation, with properly definable boundaries. Urban spaces mostly contain restaurants, attractions, nightlife, and historical buildings, and are often described as soft places, which are increasingly prime targets for (international) terrorists, given the array of valuable physical and social infrastructure they contain (Hayllar & Griffin, 2005). According to Eckes (2018), it is not easy to prevent vehicle terrorist attacks in urban spaces, as they take place in a space of daily life where pedestrian and traffic zones meet, public transport must function, goods must be delivered to shops, and streets must be accessible to emergency services. To protect the future of cities, resilience measures to counter terrorism threats were implemented, what is termed by professionals (Coaffee, 2013a; Rasler & Thompson, 2009) as the first wave of resilience. The implementation of mainly overt security measures is considered important to reduce social risk by creating a situation that increases stability and security (Connell, 2009). Highly visible fortress-like security devices at high-risk sites were implemented, becoming normalized and generalized as permanent landscape changes to prevent terrorism, but involved limited engagement with the public and built environment professions such as urban planners and architects (Coaffee, 2003). When built environment professionals like planners, architects, and urban designers got more involved through the manipulation of material design changes to encourage modes of behavior from communities and individuals, the second wave of resilience was boosted (Coaffee, 2013a). In this wave, more thoughts were given on an appropriate balance between the need to accommodate security devices for sensitive places and the vitality of the public realm. Thoughts were given to how security devices do not restrict or impede operational use of sidewalks or pedestrian mobility and how the security devices could provide a public realm beautification, rather than act as a separate device whose only purpose is security. Some designers devoted themselves to the search for forms that conceal the anti-terror aspects of some measures, also known as camouflaging security devices; making concrete barriers with flower planters on top and finding social uses for the barriers (Coaffee, O'Hare, & Hawkesworth, 2009). Different characteristics, like size, color, shape, function, or whether it is visible (uncamouflaged) or not (camouflaged), can influence the visual properties of the concrete barriers and the way how tourists perceive them (Guo, Courtney & Fischer, 2017). Rather than using the barriers as unpleasant design and hostile urban architecture, Coaffee, O'Hare, and Hawkesworth (2009) argue that the devices are nowadays given more meaning. Different scholars (Connell, 2009; Coaffee, 2005; Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Newman, 1972; Adeloje & Brown, 2018) state that concrete barriers are making a transformation and no longer only serve as a security device that might create unpleasant feelings, exclude people, and negatively influence tourist's urban space experience. When studying the concrete barriers within city landscapes, it is important to consider that they can be observed from three different views (forms); a basic-, spatial- and symbolic form (Dee, 2004). The basic form focuses on the representation of the perceptibility, visual, and color of the observed, the spatial form on the behavioral patterns, like the practices and functions, and the symbolic form on the cultural identity, like the meaning and symbolism. These three ways of observing objects are highly interrelated and interactive (Dee, 2004).

The above-mentioned scientific literature showed that travelers' perception of risk related to concrete barriers may be different and is largely dependent on how someone constructs his

or her own reality. While some travelers may perceive a concrete barrier as generating fear, nervousness and being risky, other travelers may perceive a concrete barrier as generating feelings of relaxation and not involving risk. This implies to me, that tourists observe objects all differently and thereby create different perceptions. This view is supported by Guachalla (2018), who argues that an individual's personal background (in terms of their socio demographic profile as age, occupation, education, and other indicators), along with their previous experiences and preferences, leads them to perceive objects from different perspectives. According to Guachalla (2018), this is especially applicable to objects in urban spaces that are visited by individuals from different parts of the world, who all interpret their surroundings in unique ways. Even though it is important to keep in mind that perceptions are influenced by socio demographic mechanisms, these socio demographic mechanisms do not form the main research topic of this study, but the perceptions and meanings themselves do.

The above-mentioned literature showed that city landscapes (context) can be observed from three different views and can influence the visual perceptions of tourists and the way how tourists associate concrete barriers and perceive risk. As described by several authors above (Connell, 2009; Coaffee, 2013b; Coaffee, O'Hare, & Hawkesworth, 2009) more thoughts were given, since the second wave of resilience, on an appropriate balance between the need to accommodate security devices and the vitality of the public realm. City landscapes are for a longer time already closely related to the objects, the concrete barriers, that are located in a certain context that is perceived at the time of investigation. All these scientific statements are considered as assumptions and will only be used as a starting point for this qualitative study and offer a way of seeing, organizing, and understanding the perceptions (Charmaz, 2003). They are considered as background ideas that inform the overall research problem of this study and help, later in this study, to critically discuss if the results of this study and the way how the respondents in this study gave meaning to the objects and constructed their realities subjectively on sight and risk, are in line with these assumptions. These assumptions also helped to develop suppositions that act as a starting point for further investigation (hypotheses [H]):

- H1: Concrete barriers do not influence the visual- and risk perceptions of tourists in Amsterdam and Copenhagen.
- H2: Only camouflaged concrete barriers provoke feelings of safety and security.
- H3: Uncamouflaged concrete barriers look ugly but provoke feelings of safety and security.
- H4: Concrete barriers provide public realm beautification.

3. Theoretical framework

This theoretical framework commences with the theoretical positioning of this research project (subchapter 3.1), since the entire structure of this study, and the answering of the research question is influenced by it. To answer the research question of this study,

'What is the interrelationship between concrete barriers, visual perceptions, and risk perceptions, among tourists in Amsterdam and Copenhagen?'

this theoretical framework will mainly focus on the theories of formulating perceptions (subchapter 3.2), visual perceptions (subchapter 3.3) and risk perceptions (subchapter 3.4). For each of these topics, first a little embedding of the literature is provided, followed by an explanation of how each concept will be used in this study. In the last subchapter, subchapter 3.5, all the theories will be combined, and a conceptual model is presented that will guide the analysis of this study.

3.1 Theoretical positioning

First, it is important to consider that theory is involved in all stages of this research. Determining a theory in this subchapter, will help to make the 'complexity of the world' clearer by ordering and prioritizing the most important questions of this study and to decide what to include and what to ignore in this study. Building upon the problem diagnosed in the introduction, I would like to highlight the strands of thoughts on which I based the remainder of this study.

As described in the introduction section, I noticed that many assumptions are made by scholars on how concrete barriers affect cities, their inhabitants, and tourists, but a clear direction and real consensus could not be found among those scholars. It indicated to me that this subject has not (yet) been properly studied. It indicated to me that, for example, the fear-inducing effect of concrete barriers is rather assumed than obvious and that we do not know if concrete barriers create a hospitable and welcoming urban space. To me, it is unclear what feelings concrete barriers provoke, if their primary task needs to be concealed in urban spaces or not, and how they create meanings. I am curious if tourists associate the concrete barriers with vehicle terrorist attacks, how concrete barriers create meanings, and whether and how concrete barriers influence the visual- and risk perceptions of tourists. Instead of focusing on the feelings of security and insecurity, it is more important to me, to better study the tourists' diverse interpretations and the social processes involved in creating those interpretations. Thus, instead of making abstract conceptual statements about feelings of risk related to the concrete barriers, I am more interested in how meanings (perceptions) are constructed towards these objects.

When we enter the more specialized world of academic discourse, we see that theory has many meanings. Theory comes on many levels, like Marxism, positivism, feminism, or social constructivism (Cresswell, 2013). In this study, I believe it is important to think of theory as a lens that helps us see things clearly. By doing so, it imposes conceptual order on messy reality and brings an indistinct blur into focus (Cresswell, 2013). Thereby, it is important to consider that people use different lenses to see the same things differently (in this study the concrete barriers) and then argue differently about it. As Cresswell (2013) argues, theory is opposed to "practice" which itself often appears to mean "reality." Theory is thinking and practice is doing.

Clearly, we perceive the world in many ways using the senses of sight, sound, taste, touch, and smell (Cresswell, 2013). Patton (2002) supports this approach by indicating that people construct their own realities and truths according to their own interpretations. These 'truths' can be applied to a multi-faceted area such as the city landscapes (context) with concrete barriers whose users, the tourists, may see it as safe places that do not influence their feelings of security; or who may view it as insecure places that are potential targets for vehicle terrorist attacks. This indicates to me, that there is a high need to focus on the individual itself, to understand how meanings are embodied in everyone's language and actions, how they are formed, and how they finally influence someone's visual- and risk perception. As such, I identified **social constructivism** as the most suitable approach to undertake this study, because it allows each person to develop their own views of the world and explore how they shape their perceptions and meanings. With this research paradigm in mind, it is important to no longer regard reality as the direct reflection of the things around us, but also to consider the tourist's ability to know and judge (Lengkeek, 2001). With this approach in mind, empirical evidence will be collected during this study, particularly by observation, and through inquiring the opinions of various tourists in Amsterdam and Copenhagen, which helps one in making a more refined assessment of the perceptions on concrete barriers.

The theories on perceptions as discussed in subchapter 3.2, subchapter 3.3, and subchapter 3.4, are in line with constructivism thoughts, as they will comprise the way of thinking of this study and act as a map to better understand the formulation of visual- and risk perceptions. The theories alone will not be helpful, as they would restrict the ability to uncover new knowledge in this study (Jennings, 2001). Therefore, a flexible conceptual model is developed in subchapter 3.5 that enables everyone to develop their own views and constructions of reality in line with their interpretations. Since I am using a social constructivist approach, it is possible that the conceptual model will be adjusted later during this study.

3.2 The formulation of perceptions

According to Phillips (2018), perceptions are simply ways of being conscious of something, just as being blue is a way of being colored. Perception involves a subject standing in relations of conscious acquaintance or awareness to various presented elements (Phillips, 2018).

In this study, the tourists are the subjects that are standing in relations of conscious acquaintance or awareness with the concrete barriers. One has not perceived something, if one is not consciously aware of that thing (Phillips, 2018). This indicates to me, that perceptions only can be formed consciously. To me, this makes sense, because how can tourists perceive feelings on the visual properties of the concrete barriers, the context, or risk related to the concrete barriers, when they have no conscious acquaintance about the concrete barriers in the first place.

According to Phillips (2018), three different modes of perceptions exist, namely hearing, seeing, and tasting. Within this study, the focus will be on visual perceptions (seeing).

During the data collection of this study, tourists will be asked about their opinion on the surrounding. When they have no conscious acquaintance about the concrete barriers, they won't be able to form visual- and risk perceptions in the first place, and therefore, they won't be invited to take part in this study. When tourists have conscious acquaintance about the

concrete barriers, perceptions are most likely formed in a social constructive way, in where meaning is not intrinsic to the concrete barrier itself, but rather is the result of human experiences in it. The type of tourists that have conscious acquaintance about the concrete barriers, all observe the same object, but think differently about them. This view is supported by Tuan (1977): “What begins as undifferentiated objects becomes objects when we endow it with value”. In this way, it is possible for a single object to have multiple meanings and have different functions for different people.

3.3 Visual perception

In the process of moving through city landscapes and making sense of it, tourists experience place seduction; an inviting encounter between the tourist and the landscape, where tourists seek a particular attraction or something to gaze upon (Metro-Roland, 2011). Place seduction is manifested through the physical landscape, where the tourist is an observer, passively immersing the world around him (Terkenli, 2002).

Tourists can only perceive the physical landscape, city landscape, and visual properties of the concrete barriers, if they have conscious acquaintance about the concrete barriers in the first place. When they do have conscious acquaintance, visual perception will simply act as the process through which the tourists become acquainted with the visual properties of the objects and the city landscape (context), in where the objects are located. With a social constructivism approach in mind, it is important to consider that views on visual properties and city landscapes may vary between people, as residents, leisure visitors, business visitors, day visitors, and overnight visitors, may all experience varying levels of (dis)satisfaction when using urban spaces. The circumstances of the city landscape (context) itself form unique settings of which the object can be understood by tourists. By concentrating on the visual perceptions of tourists, I focus in this study on first, the visual properties of the objects itself and secondly, on the context in where the objects are located. I believe that those two aspects have a high influence in how tourists give meaning to the concrete barriers.

3.4 Risk perception

The concept of risk perception has been highly studied in tourism. Risk perception can be described in general as the uncertainty about a situation or event in which something of human value is at stake based upon an assessment of the possible negative outcomes and the likelihood that those outcomes will occur (Rosa, 2003; Karl & Schmude, 2017). Within a tourism context, risk perception is described as the perception held by a tourist during the process of consuming travel services that is related to aspects such as uncertainty avoidance, worry, anxiety or fear (Tsaur, Tzeng, & Wang, 1997; Yang & Nair, 2014) and in the context of terrorism, risk perception is influenced by the possibility to be affected or injured by an act of terrorism while travelling, which creates an atmosphere of uncertainty that creates fear and a lack of ability to control the risk (Morakabati & Kapuscinski, 2016; Roehl & Fesenmaier, 1992).

Risk perception is one of the branches of risk perception research, which has been and continues to be a veritable industry in which complex and controversial processes of evaluating potential risks plays an important role (Nelkin, 1989). Risk perceptions can be optimistic (low) or pessimistic (high). There are different forms of risk perceptions, namely deliberative risk perceptions, affective risk perceptions, or experiential risk perceptions (Radcliffe & Klein,

2002). Within this study, experiential risk perception will play an important role, whereby the focus will be on the contents of the risk perceptions. The concrete barriers can only provoke feelings of risk to the tourists, if they have conscious acquaintance about the concrete barriers in the first place. When they do have conscious acquaintance, risk perception will simply act as the process through which the objects provoke feelings of risk to the tourists and how the tourists give meaning to the objects. This is expected to either be a positive feeling related to risk like security or safety, a neutral feeling, or a negative feeling related to risk like insecurity, anxiety, or suspiciousness. With a social constructivism approach in mind, it is important to consider that meanings and feelings on risk may vary between people, as residents, leisure visitors, business visitors, day visitors, and overnight visitors, may all experience varying feelings when gazing upon the objects. In this study, I will focus on how the objects provoke different meanings and feelings of risk to the tourists, or in other words, how the tourists attempt to feel about the concrete barriers.

3.5 Conceptual model

In this final section of the theoretical framework, I synthesized the various conceptual discussions above and compromised a way of thinking to create a map that identifies the most relevant concepts (and interrelationships). As mentioned in the previous chapters, it is important to focus on the individual itself, to understand how meanings are embodied in everyone’s language and actions, how they are formed, and how they finally influence someone’s visual- and risk perception. The theories on perceptions act as a map to better understand the formulation of visual- and risk perceptions. Within this study, the tourists are the subjects that are standing in relations of conscious acquaintance or awareness with the concrete barriers (objects). When they have no conscious acquaintance about the concrete barriers, they won’t be able to give meaning to the objects and to form visual- and risk perceptions in the first place. When tourists have conscious acquaintance about the concrete barriers, they can give meaning and form visual- and risk perceptions. Therefore, when talking about any visual perception or risk perception, there is already a relationship between these perceptions and the objects, the concrete barriers, itself. I also consider that the visual perception itself (the visual properties of the objects and the context) can influence the perceptions of risk. For example, the way tourists understand the context in the first place, can influence the formulations of risk perception that they connect to this and vice versa. The conceptual model developed for this study (available in figure nine), along with the implementation of the social constructivist paradigm as an approach to analyze the data, will help me to research how the respondents within this study give meaning to the objects and finally, construct their realities subjectively on sight and risk. Since I am using a social constructivist approach, it is possible that the conceptual model will be adjusted later during this study.

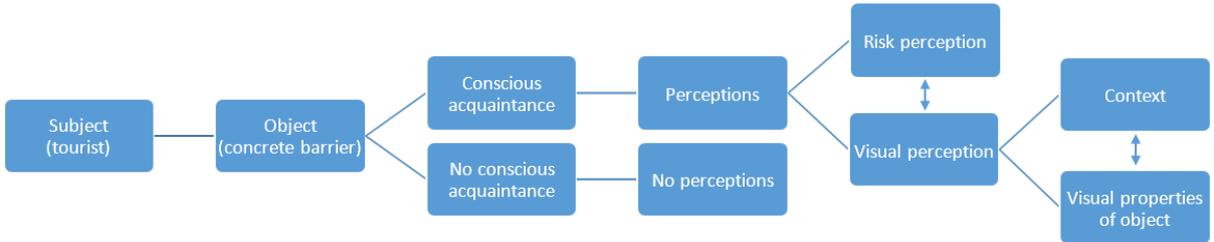


Figure 9: Overview of conceptual model.

Figure ten provides an overview of the conceptual model with animations, so the conceptual model is easy to understand for everyone.

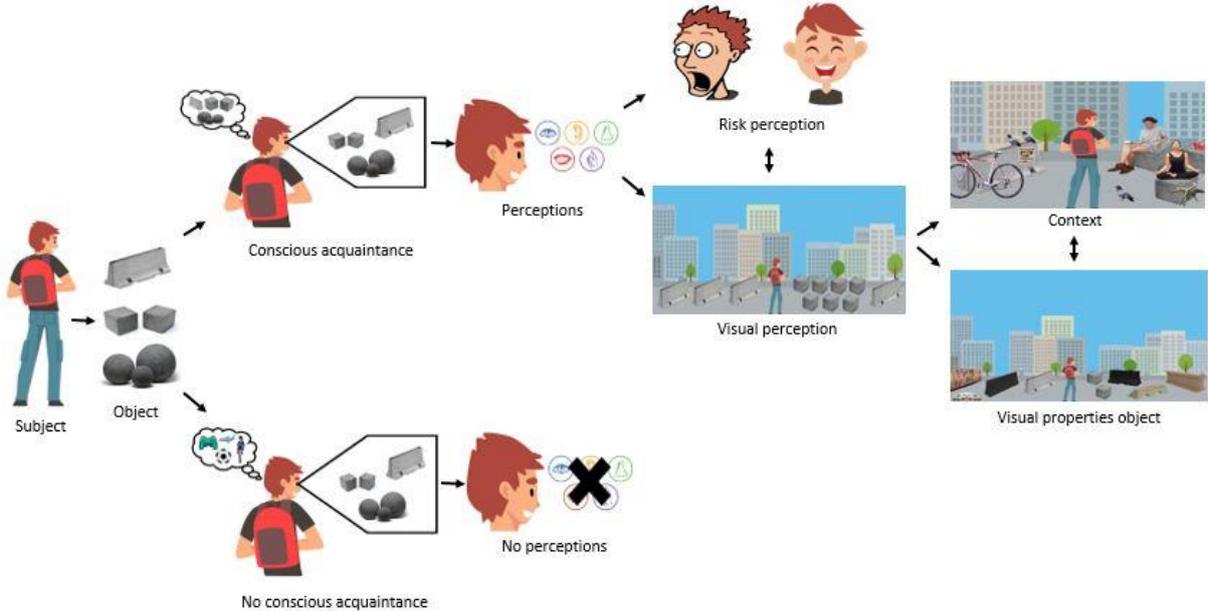


Figure 10: Overview of conceptual model with animations.

4. Methodology

This chapter gives an overview of how this study was conducted, in which empirical data was gathered, through naturalistic observations and semi-structured interviews with tourists in Amsterdam and Copenhagen, to answer the research question from a qualitative standpoint. First, the research design and context of this study are presented. Subsequently, it is discussed how the data is gathered and how it is analyzed. Finally, the quality of this project and limitations are discussed.

4.1 Research design

This study adopted a qualitative approach to explore the visual- and risk perceptions of tourists in Amsterdam, the Netherlands and Copenhagen, Denmark, in the light of the rise of vehicle terrorist attacks and the implementation of concrete barriers. By this approach, it was possible to create a deep understanding of the social phenomenon. Multiple qualitative methods were applied in this study to improve the internal validity, triangulation, and a 'thick' understanding (Boeije, 2010), namely semi-structured interviews, naturalistic observation, and a research diary. These methods helped me to gain a better understanding of the perceptions from different perspectives and to respond to the research question in a more in-depth way.

Semi-structured interviews

Semi-structured interviews were applied to gain an emic understanding of the influence of the concrete barriers on the different visual- and risk perceptions of the research participants. Semi-structured interviews were chosen as the best way to fulfil the research aim, as they allowed the participants to express their thoughts and feelings freely. Structured interviews could have jeopardized the depth of the data collected, while non-structured interviews could have limited the possibility to a certain extent to compare the data between the participants. Within the semi-structured interviews, two questions were formulated with a Likert scale, as this scale helped the participants to easily indicate their safety feelings about the concrete barriers. After they indicated a number (0-10), a follow-up question was asked to learn more about their feelings and the reason why they chose the number.

Naturalistic observation

Naturalistic observation was used to gain an etic understanding of the functions of the concrete barriers. An etic view of the concrete barriers is the perspective of the observer looking in from the outside. Naturalistic observation involves studying the spontaneous behavior of the participants in their natural surroundings. The observation in this study, gave me the opportunity to generate new ideas regarding the functions of the concrete barriers. A covert role was taken in the observation. This means that I was observing completely undercover, so the participants had no idea that they were being observed. This role was chosen to make sure that the tourists in this study did not act differently, as they would normally have done. Furthermore, I only observed and not participated in the actions around the concrete barriers. The naturalistic observation was partly controlled, by using an observation schedule that was developed prior to the observation. In this way, the observation would be easier to be replicated by other researchers. Observing how the participants used the concrete barriers, helped me to gain a better understanding of the functions of the concrete barriers, to generate new ideas, to triangulate the data, to gain increased internal validity, and to make better sense of the data collected during the interviews.

Research diary

During this study, I recorded all my activities, thoughts, feelings throughout the research process from designing the research through collecting the data in Amsterdam and Copenhagen, analyzing, and to writing the study, in a research diary. I tried to write down a description of what I did during a day, who I met, what I read, how I felt about certain situations and theories, and what ideas I wanted to remember to follow up. The diary helped me to keep connected with this study, to maintain my motivation, and to better interpret the data.

4.2 Context

Having established the reasons for selecting specific research methods, this subchapter elaborates on the context of this study. The study took place in the city of Amsterdam, The Netherlands and Copenhagen, Denmark. The next sections provide more details about these contexts and why Amsterdam and Denmark were chosen as contexts for this study among other European cities.

4.2.1 Amsterdam, The Netherlands

Amsterdam, the Netherlands was chosen as the first case study location in this study, because to me it was interesting to learn more about the concrete barriers in my home country and to expand my professional network in the Netherlands.

The Netherlands Board of Tourism and Conventions [NBTC] (2018), stated that in 2017, 18 million tourists from abroad visited the Netherlands and this number is expected to rise till 29 million in 2030. Amsterdam is the most popular place visited in the Netherlands (NBTC, 2018). Even though no major terrorist attack has taken place in the Netherlands in the recent years, the threat level for the Netherlands remains at 'substantial', which is level 4 on a scale of 1 to 5 (NCTV, 2018b). In the recent years, the Netherlands has experienced various acts of violence targeting innocents. Several examples of these acts are presented in figure 11 by means of a compilation of short newspaper quotes;

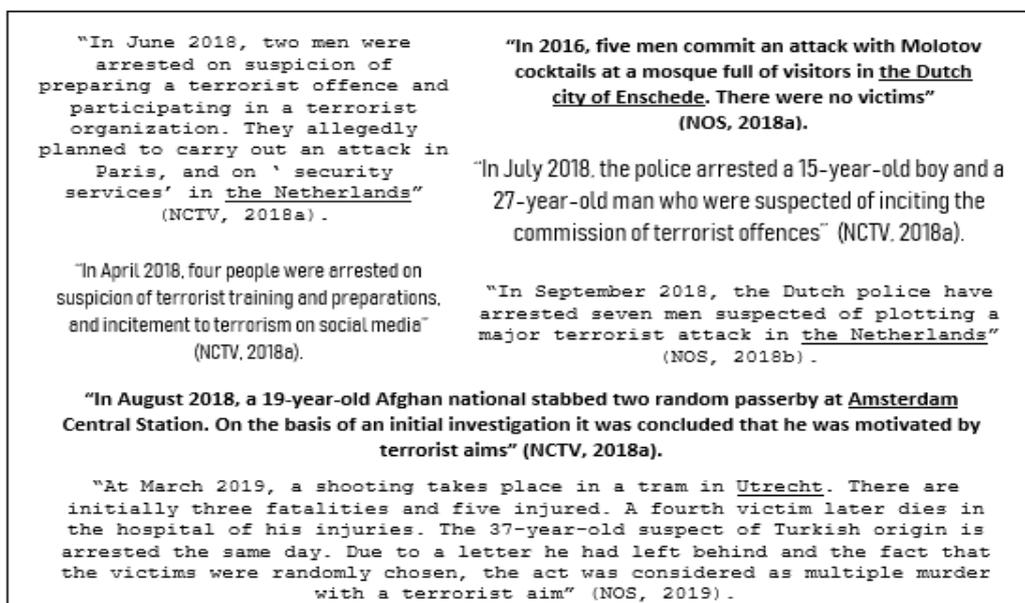


Figure 11: Compilation of newspaper quotes related to terrorism in the Netherlands of different sources.

The arrest of these terrorism suspects in 2018 and 2019, show that the terrorism threat is still real in the Netherlands. Even though none of these crimes were directly related to vehicle terrorist attacks, another incident happened back in 2017, that probably motivated the municipality of Amsterdam to change the public space so that it remains safe, pleasant, and livable;

“In June 2017, a man has hit with his car seven pedestrians on the Stationsplein, in front of the central train station of Amsterdam. Shortly before the incident, witnesses saw the man driving on a tram track at high speed. The witnesses thought of the recent vehicle attacks in London, Stockholm and Berlin and experienced initially fear among each other’s that a similar attack was happening in Amsterdam. The police were on the spot quickly and the man was arrested” (AT5, 2017).

It is believed that this action motivated the municipality of Amsterdam to change the public space so that it remains safe, pleasant, and livable. In 2018 only, the municipality of Amsterdam budgeted one million Euros for the implementation of anti-terrorism measures at 18 places throughout the city (Gemeente Amsterdam, 2017). These are often sites that are already special in terms of design and material and provides opportunities for good integration of C-VTAD, or places that are very crowded touristic places. Some of these places have been renovated and others are still on the planning for renovation in 2020 (anonymous, personal communication, April 09, 2019). One of the renovated and most secure places in Amsterdam is the Rembrandt Square. This square is renovated two years ago (anonymous, personal communication, April 09, 2019). Today, there are many camouflaged, concrete barriers on the square. The large information pillars that are located around the square, are built from concrete with a hard-plastic layer around it and are anchored in the ground. They are super safe and do not stand out as barriers (anonymous, personal communication, April 09, 2019). Damrak and Beursplein are two other places in Amsterdam where additional measures were taken for extra security. An anonymous person with expertise of Amsterdam showed that at Damrak for example, several barriers are located next to the main road. These are long benches of concrete that are anchored in the ground and a couple of concrete flower pots in between the benches (anonymous, personal communication, April 09, 2019). Beursplein has now an underground bicycle parking lot and many camouflaged concrete barriers are located around this square. At the entrances of the central train station of Amsterdam, are also several concrete barriers. They are, according to me, constructed in a simple shape and painted black. At the station square are high grey concrete barriers with maps on them. At the Dam Square are also several pieces of concrete barriers, some of them with wood on top, and some of them without, looking like a piece of Lego. These barriers are not anchored into the ground, are often dangerous for road users, and are also very ugly (anonymous, personal communication, April 09, 2019). Research has shown that when a large truck hits these objects, and they are not anchored in the ground, they can fly hundreds of meters around and thus injure people. A well-intended concrete block then quickly becomes one dangerous projectile that can also injure and kill people (SVOB, 2018).

Although the threat for terrorism is high in the Netherlands, tourism arrivals are rising, and several concrete barriers have been placed to protect the people in urban public places in Amsterdam, until now, no studies have analyzed the tourist perceptions of threats from terrorism and concrete barriers in the Netherlands. Within this study, Rembrandt Square, Dam Square, and one of the entrances of Amsterdam Central train station were selected as the

three research locations in Amsterdam. By selecting these three locations, it was possible to discuss the different meanings given to the three different types of objects (camouflaged barriers at Rembrandt Square, semi-camouflaged barriers at Amsterdam Central Train Station, and uncamouflaged barriers at Dam Square).

4.2.2 Copenhagen, Denmark

In January 2019, Martin Trandberg Jensen, Assistant Professor in the Department of Culture and Global Studies at the Aalborg University, gave a lecture about staging urban tourism: a tale of concrete barriers and fortress urbanism, at Wageningen University. His presentation inspired me to investigate tourists' perceptions on urban landscape and risk. Since his presentation was about the concrete barriers in Copenhagen, I thought this study should be linked to some extent to Copenhagen as well.

Copenhagen has been ranked among the quickest-growing tourism destinations in Europe in 2017. The Danish capital enjoyed an 8.1 percent increase in travelers between the years 2009 and 2016, making it one of the fastest moving in Europe (William, 2017). Next to this, Lonely Planet has named Copenhagen at the top of prestigious cities to visit in 2019 (The Local, 2018) resulting in undoubtedly more tourists' arrivals in Copenhagen.

In Denmark, the 9/11 events immediately triggered a series of legislative initiatives that were clustered into a single anti-terror package enacted in 2002. In the wake of the 2006 terrorist bombings in Madrid and London, a second anti-terror package was adopted (Vestergaard, 2013). Even though no major vehicle terrorist attack has taken place in Denmark in the recent years, the country has experienced various acts of violence targeting innocents. Several examples of these acts are presented in figure 12 by means of compilation of short newspaper quotes;

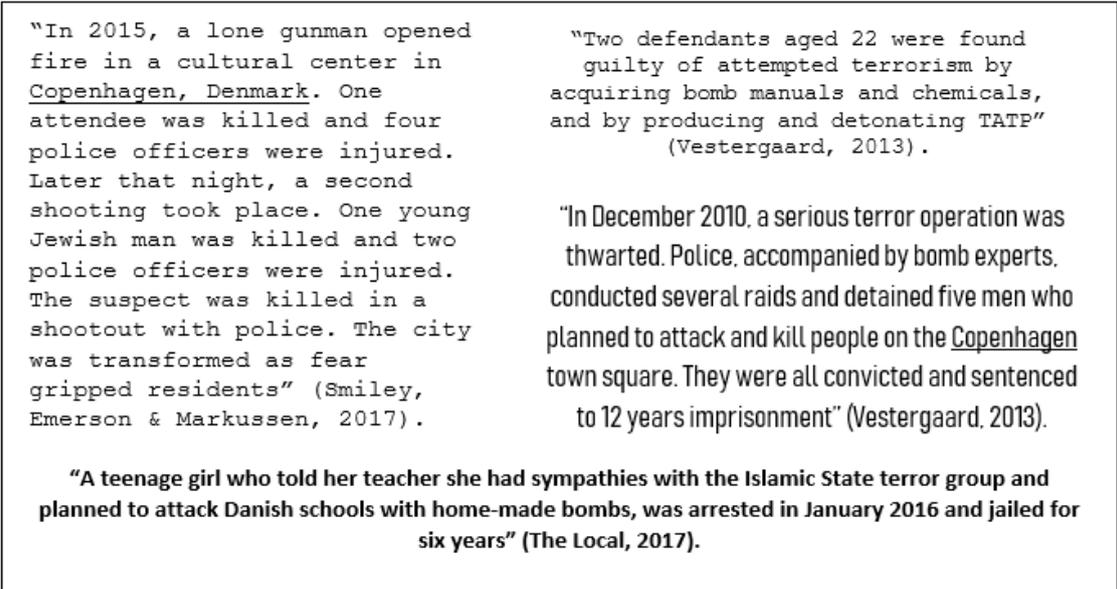


Figure 12: Compilation of newspaper quotes related to terrorism in Denmark of different sources.

In 2017 only, 14 people were arrested in Denmark and charged under the terrorism laws. After the terrorist attack at Copenhagen Great Synagogue in Krystalgade, the parliament of Denmark committed \$5 million for security infrastructure upgrades to buildings used by the

Jewish community in Copenhagen. Security measures consisted of cameras, fencing, alarm systems, bollards, pedestrian gates, and vehicle gates (United States Department of State Publication, 2017). Also, several concrete barriers and bollards have been placed in the city center of Copenhagen.

Lindekilde and Sedgwick (2012) analyzed the community perceptions of threats from terrorism in Denmark and found out that despite of the relatively high number of terrorist cases in Denmark over the last decade, Danes worry much more about getting killed in traffic than about getting killed in terrorist attacks. It seems that Danes are not very concerned about the threat from terrorism in everyday life where other concerns, such as unemployment rates, are much more important. In fact, a vast majority of Danes tend to agree that they only think about terrorism when they hear about it in the media (Trygfonden, 2011). According to Dalgaard-Nielsen, Laisen and Wandorf (2016), the Danish public is being manipulated through C-VTAD into believing that the threat from terrorism is far greater than it actually is and into believing that protective measures are more effective than they actually are. The visibility of security measures including C-VTAD in public spaces help Danes to enhance a sense of safety, rather than insecurity by visualizing potential dangers (Trygfonden, 2011). On the contrary, Trygfonden (2011) shows that Danes felt much more insecure in urban public places than they do in other places. This insecurity relates to fear of crime as well as fear of terrorism.

Since, several scholars have analyzed the community perceptions of threats from terrorism and C-VTAD devices in Denmark, but not the perceptions of tourists regarding terrorism, C-VTAD, and concrete barriers in specific, in Denmark, it will be interesting to create an understanding about whether and how concrete barriers impact the visual- and risk perceptions of tourists in Denmark. Also, for this case study location, three different research locations were selected in Copenhagen; the intersection of Rådhuspladsen and Strøget, Nyhavn location 1, and Nyhavn location 2. By selecting these three locations, it was possible to discuss the different meanings given to the three different types of objects (camouflaged barriers at Nyhavn location 1, semi-camouflaged barriers at Nyhavn location 2, and uncamouflaged barriers at the intersection of Rådhuspladsen and Strøget).

By better understanding the perceptions of tourists in Amsterdam and Copenhagen about concrete barriers, policy makers can be better informed about whether and how the future of concrete barriers should play a larger role in the city landscapes. This is important for tourism in Amsterdam and Copenhagen as terrorism is regarded as one of the many threats to tourism in these cities. The specific locations in Amsterdam and Copenhagen (explained in more detail in subchapter 4.3) acted as different contexts in which the concrete barriers (objects) were located. It is important to keep in mind that each respondent differently perceived each context. Some of the tourist had no conscious acquaintance about the objects in the contexts in the first place, and some of them had this. It is important to remember that each context is different, and that each context triggered different (visual- and risk) perceptions.

4.3 Data generation

First-time and repeat international and domestic tourists were recruited throughout six predefined locations in Amsterdam, The Netherlands and Copenhagen, Denmark in order to understand how the concrete barriers influence tourists' visual- and risk perceptions, leading to 70 hours of conversations with 178 tourists, 15.5 hours of observations, nine hours of talking

with professionals from the field, 23 conducted interviews, seven hours of audio-recorded interviews, and finally, 71 pages of interview transcripts. This all was made possible by devoting three hours flying by plane (to Denmark) and 17 hours by train journeys. The following subchapters explain how the data of this study was conducted.

4.3.1 Interviews

The sampling approach of this study could be linked to the concept of non-probability sampling, whereby each member of the population did not have known probability of being selected in the sample. Within this research, the relationship between the researcher and the interviewee was subjective and dialogues were produced. To create a mutual meaning, the interaction between the subjects was very important, and therefore, the use of a qualitative research with a small sample was essential (Jennings, 2012). Within this study, the convenience sampling technique was used, whereby participants were selected from those people to which I had most convenient access. As this study was centered around tourists in Amsterdam, the Netherlands and Copenhagen, Denmark, all participants were at the time of the interview, a tourist in these cities. Furthermore, the participants were asked if they knew other tourists that would like to participate in this research (snowball sampling technique). An overview of the research participants is available in table six in appendix III.

Semi-structured interviews were adopted as the data collection method given the flexibility required to ensure that participants would express their thoughts and feelings freely. Semi-structured interviewing is an 'exchange of dialogue' in a relatively informal style, where the researcher and participant produce knowledge together. This approach is valued for its production of thick descriptions of human behavior and helps to understand the meaning people make of their experiences. Semi-structured interviews allowed me to be flexible and ask new questions, so the respondent's responsiveness was more extend and valuable. The semi-structured interviews were personal and face-to-face. Nyskiel (2005) who researched the different types of internal- and external risks, Uriely, Maoz, and Reichel (2007) who identified two types of risk rationalizations; inward- and outward oriented rationalization, and Dee (2004) who observed different landscape forms, all used qualitative research instruments to gather more information from their sample.

An interview guide was created with a selection of topics and questions that were influenced by theories of the theoretical framework and assumptions made in the literature review. This guide is available in appendix I. Open-ended questions were used, which allowed naturally engagement with the participants. The interviews covered the following topics: small talk, visual perception, and risk perception. The questions asked, focused on the perceptions on the context, perceptions on the visual properties, and perceptions on risk. These also enquired about whether and how the respondents used the concrete barriers, and if so, in what ways. The semi-structured interview guide was first tested in a pilot interview to learn from the pilot responses and later revised, so the interview guide was adequate during the actual interviews. A summary of the interview guide can be found in table one.

Table 1: Summary of interview guide.

Interview questions	Topic
<ul style="list-style-type: none"> - Where are you from? - Why are you visiting Amsterdam/Copenhagen? - Have you visited Amsterdam/Copenhagen before? - What is your profession back home? - Have you experienced a vehicle terrorist attack yourself? 	Perception influence factors
<ul style="list-style-type: none"> - What do you think of the color of the concrete barrier? - What do you think of the visual/shape of the concrete barrier? - What do you think about camouflaging the concrete barrier? - Would you rather see a camouflaged/shaped barrier or a normal concrete barrier that is not camouflaged and shaped? - How does the camouflaging of the barrier influence your feelings of safety in this street? - Does the barrier restrict or impede your use of sidewalks? - In what ways do you use the concrete barrier? - What do you think is the purpose of the concrete barrier? - What are upsides of the barrier? - What are downsides of the barrier? - Why do you think that the barrier is located at this place in Amsterdam/Copenhagen? - Does the barrier reminds you of anything? - How does the concrete barrier influence how you move around in this city? - Do you think that the barrier fits in this landscape? - Does the barrier influence your feeling of safety when walking through this street? - Would this feeling change if there were more of them at this street? Why? When you see the concrete barrier, do you want to avoid the place? 	Urban landscape perception
<ul style="list-style-type: none"> - If you could rate your feeling of safety when standing next to this barrier, with a scale ranging from 1, very low, to 10, extremely high, how would you rate your feeling of safety? - If you could rate your feeling of concern for a vehicle terrorist attack when standing next to the barrier, again with a scale ranging from 1, very low, to 10, extremely high, how would you rate your feeling of concern for terrorism? - Do you feel like other destinations have a higher chance for a terrorist attack? - Have you noticed any news on terrorism lately in the media? - You have probably noticed the rise in vehicle terrorist attacks in the past years, think about Nice and Berlin in 2016 or Barcelona in 2017, how did these attacks influence your daily life? 	Risk perception and risk rationalization

The interviewing locations included six different sites, that were mostly visited by tourists and where concrete barriers were installed, in Amsterdam, the Netherlands and Copenhagen, Denmark. The places are described below and marked down on a map of Amsterdam (figure 13) and on a map of Copenhagen (figure 14);

1. Amsterdam Central Train Station, Amsterdam, the Netherlands (figure 13)
2. Dam Square, Amsterdam, the Netherlands (figure 13)
3. Rembrandt Square, Amsterdam, the Netherlands (figure 13)
4. Intersection Rådhuspladsen and Strøget, Copenhagen, Denmark (figure 14)
5. Nyhavn 1, Copenhagen, Denmark (figure 14)
6. Nyhavn 2, Copenhagen, Denmark (figure 14)



Figure 13: Map of interview- and observation locations in Amsterdam, the Netherlands.

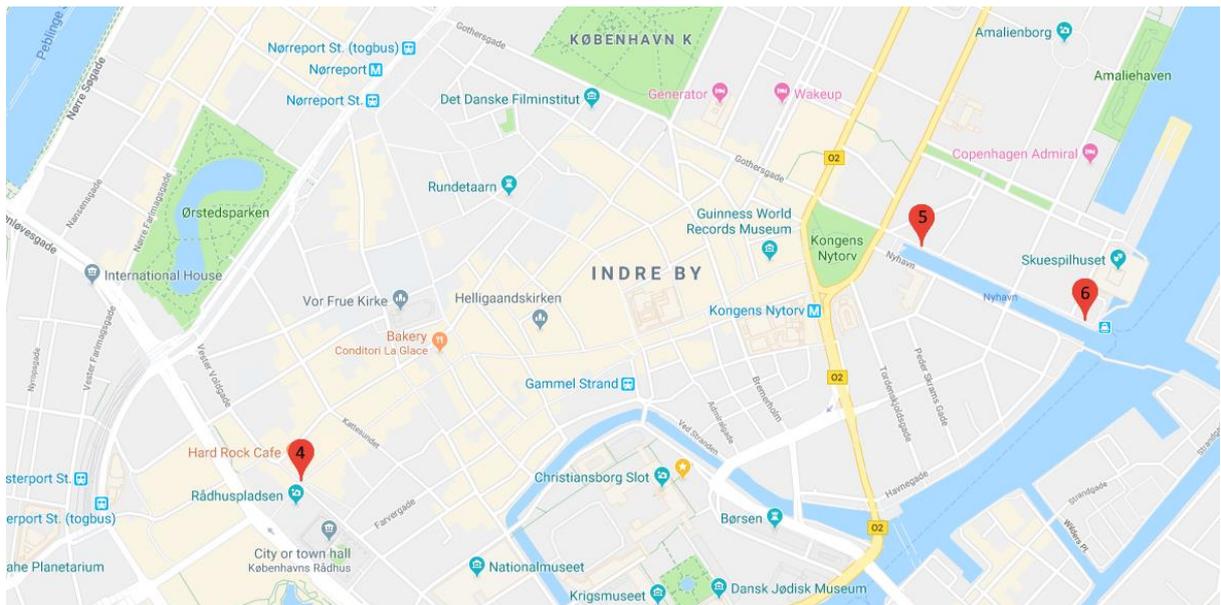


Figure 14: Map of interview- and observation locations in Copenhagen, Denmark.

In total, 178 tourists were asked about their opinion about the surrounding. When the tourists had no conscious acquaintance about the concrete barriers, they would not be able to form visual- and risk perceptions in the first place, and therefore, they were not invited to take part in this study (149 tourists). When tourists had conscious acquaintance about the concrete barriers, perceptions were most likely to be formed and the tourists were invited to take part in this study (29). Unfortunately, not all interviews yielded substantial data due to language

limitations, time limitations, and in some cases, lack of willingness to develop views in length or the reticence to talk about vehicle terrorism, leading to 23 interviews conducted. The participant determined the interview location, either at the site or in a café or restaurant in the tourist area. In this way, an informal interview setting was created, so the participant would feel comfortable during the interview, and could speak openly and honestly. The interviews were captured using a voice recorder. Their length ranged from 10 to 40 minutes and they were each transcribed manually before analyzing them. The interviews took place from April 1st until April 6th in Copenhagen and from April 9th until April 18th in Amsterdam.

4.3.2 Observations

To gain an etic understanding of the functions of the concrete barriers, observations were conducted at the same six locations of the interviews. These locations are marked down on a map of Amsterdam (figure 13) and on a map of Copenhagen (figure 14). Figure 15, 16, 17, 18, 19, and 20, show where I positioned myself during each observation (green marked places), so it will easier to repeat the observations in the same way. The yellow marked places in the figures are the concrete barriers for the specific observation. Furthermore, a small description of each observation place is described below;

Figure 15: Location 1: Copenhagen: at the 1st bench on the left at Rådhuspladsen

Figure 16: Location 2: Copenhagen: at the terrace of the café next to the barrier

Figure 17: Location 3: Copenhagen: at the side of the harbor next to the barriers

Figure 18: Location 4: Amsterdam: at a bench in front of The Döner Company

Figure 19: Location 5: Amsterdam: at a barrier across the road

Figure 20: Location 6: Amsterdam at the other barrier in front of the three barriers



Figure 15: Map observation location 1, Copenhagen, Denmark.



Figure 16: Map observation location 2, Copenhagen, Denmark.



Figure 17: Map observation location 3, Copenhagen, Denmark.



Figure 18: Map observation location 4, Amsterdam, the Netherlands.

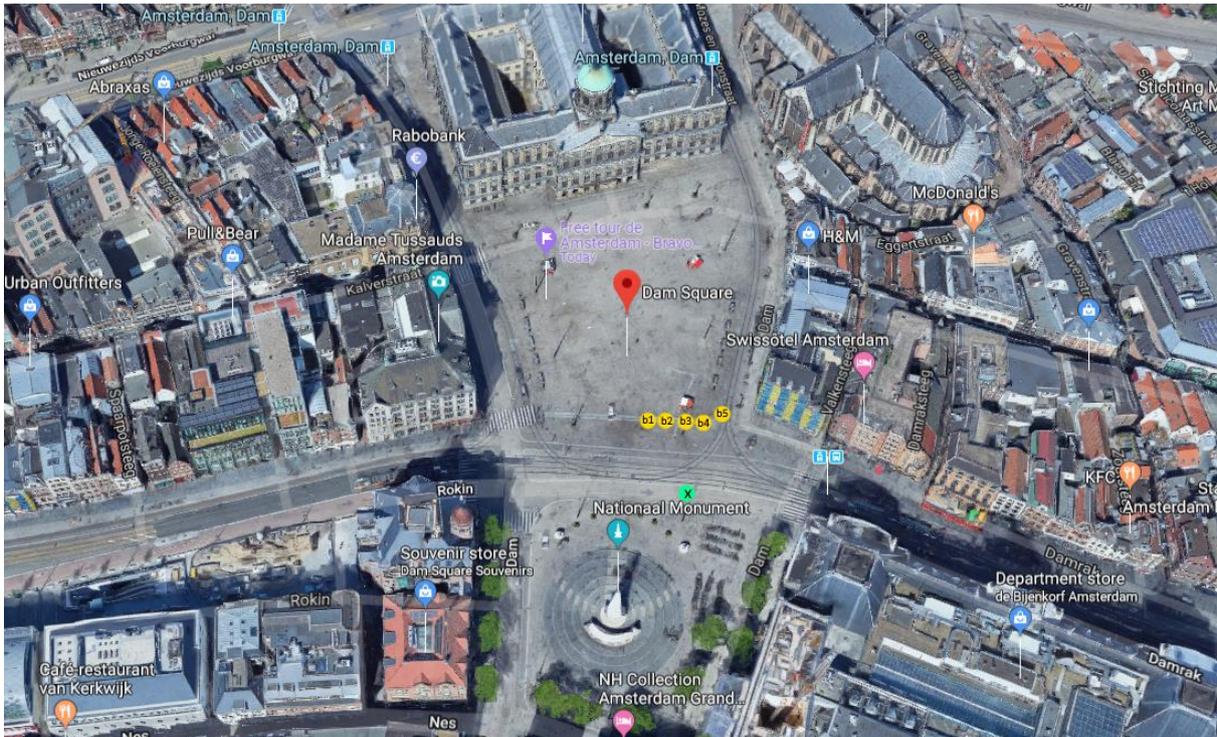


Figure 19: Map observation location 5, Amsterdam, the Netherlands.

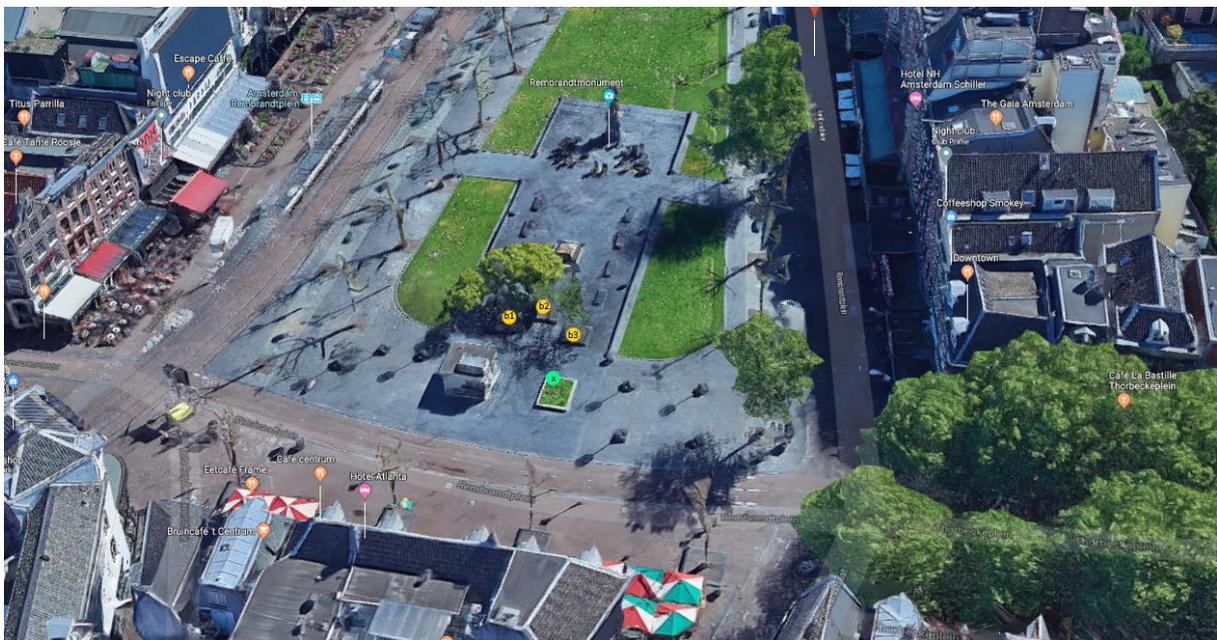


Figure 20: Map observation location 6, Amsterdam, the Netherlands.

The observations took place on April 3rd, April 4th, and April 5th, 2019 (Wednesday-Friday) in Copenhagen, Denmark and on April 10th, April 11th, and April 12th, (Wednesday-Friday) in Amsterdam, The Netherlands. Every day, each location was observed for 45 minutes. These observations took place between 09.00am and 09.45am, 12.00pm and 12.45pm, and 16.00pm and 16.45pm. These times were chosen to get a good overview of how the physical interactions with the concrete barriers look like during a day, from the morning until the late afternoon. During each observation, one specific concrete barrier or a set of concrete barriers were observed. A more detailed overview of the observation schedule is provided below in

table two and table three. Since all concrete barriers were in public areas, no permission was needed to observe these devices.

Table 2: Observation schedule Copenhagen, Denmark.

Time	April 3rd 2019	April 4th 2019	April 5th 2019
09.00-09.45	Location 2	Location 3	Location 1
12.00-12.45	Location 3	Location 1	Location 2
16.00-16.45	Location 1	Location 2	Location 3

Table 3: Observation schedule Amsterdam, the Netherlands.

Time	April 10th 2019	April 11th 2019	April 12th 2019
09.00-09.45	Location 5	Location 4	Location 6
12.00-12.45	Location 4	Location 6	Location 5
16.00-16.45	Location 6	Location 5	Location 4

During the observations, I looked at the different interactions of the people with the concrete barriers. By interactions, I mean any movement on or around the device, any conversation about the device, or any use of the device. I made notes of what I saw and felt during the observations. During the observations, it was important to stay stationary, and to not move around. I tried to only observe people once and always set a timer for 45 minutes, before I started the observations. After writing down the notes, I marked the number of interactions down in an observation sheet, as represented in table five, in appendix II. The observation sheet was first tested in a pilot observation on March 9th, 2019, to learn from the pilot responses and later revised, so the observation sheet was adequate during the actual observation. Within this pilot observation, I noticed that people mainly use the concrete barriers as a place to sit or as a place to leave garbage, but also as a tool to take a better photo. These options were added in the observation sheet.

4.4 Data analysis

The combination of different research methods resulted in a variety of collected data, including audio taped interviews, written observation reflections, observation sheets, and a research diary. When all this data was structured, transformed into analyzable documents, and fully transcribed, the data was coded.

4.4.1 Interviews

The interviews were all audio-recorded (subject to permission) and transcribed verbatim. Then the transcripts were read several times to enable familiarization with the data and each transcript was subjected to the process of deductive coding and inductive coding. Deductive codes were prior to the analysis determined and derived from the theoretical framework, while inductive codes only derived from the transcripts. Social sciences method handbooks regularly advocate coding as a method to analyze data. For example, Boeije (2010) elaborates on open-, axial-, and selective coding in her handbook of qualitative analysis and Charmaz (2014) advocates the use of initial and focused codes. Coding has the advantage that meanings can be grouped and consequently categories can emerge from the data. A dedicated and refined approach to coding data is a key success factor in qualitative studies (Babbie, 2004; Darlington & Scott, 2002). For this reason, the task of analyzing these data consisted of two stages. In

the initial coding stage, the data of the interview transcripts were marked and labelled (coding). The second analytical stage consisted of re-reading data that had already been coded to categorize the coded data into key themes and to identify patterns. Each theme was then analyzed to gain a deeper understanding of the participants' perceptions and meanings.

4.4.2 Observations

The observation notes were read several times to enable familiarization with the data and each observation note was subjected to the process of deductive coding and inductive coding.

4.4.3 Coding

The deductive codes (12) are formed according to the theoretical framework of this study. An overview of all the deductive codes is presented below:

- Object + risk perception positive (6-10)
- Object + risk perception neutral (5)
- Object + risk perception negative (0-4)
- Object + context perception positive (6-10)
- Object + context perception (5)
- Object + context perception (0-4)
- Object + visual properties of object positive (6-10)
- Object + visual properties of object neutral (5)
- Object + visual properties of object negative (0-4)
- Visual properties of object perception + risk perception
- Visual properties of object perception + context perception
- Context perception + risk perception

Three inductive codes were created when analyzing the transcripts and observations:

- Feelings other than risk related to barrier
- Function of barrier
- Normative assumptions

An overview with the coded data from the 23 interviews and 18 observations, that is used to write chapter 5, can be found in appendix IV.

4.5 Credibility, dependability, transferability, confirmability, and ethical issues

This subchapter discusses the credibility, dependability, transferability, confirmability, and ethical issues within this study.

4.5.1 Credibility

Credibility is about clearly linking the study's findings with reality to demonstrate the truth of the study's findings (Patton, 1999). One way to do this, is to use triangulation to gain a more complete understanding. Within this study, triangulation was used within the methods and sources. Semi-structured interviews and observations were used as data collection methods to check the consistency of the findings. Next to the techniques of analysis that can enhance the quality and validity of qualitative data, the credibility of the researcher itself is also important

to consider (Patton, 1999). What experience, training, and perspective does the researcher bring to the field? What personal connections does the researcher have to the object studied? According to Patton (1999), there can be no definitive list of questions that must be addressed to establish investigator credibility. The principle is to report any personal and professional information that may affect the data collection, analysis, and interpretation, either negatively or positively, in the minds of users of the findings. Furthermore, background characteristics of the researcher (e.g., gender, age, and race) may also be relevant to describe in that such characteristics can affect how the researcher was received in the setting under study and related issues. Therefore, a little description about my background is provided below:

The author of this study and researcher was Daphne van der Pol, a 25th year old white woman and social constructivist from the Netherlands, who was studying at the time of writing this thesis, a Master of Science in leisure, tourism, and environment at Wageningen University. She obtained a bachelor diploma in international tourism management and has experience in conducting qualitative and quantitative research. She never witnessed a (vehicle) terrorist attack in her life. She likes to be in nature or to write articles for her travel blog in her free time.

4.5.2 Dependability

Dependability is about establishing the study's findings as consistent and repeatable as possible, so when other researchers will look over the data, they will arrive at similar findings, interpretations, and conclusions about the data (Golafshani, 2003). When changes occur during the data collection, it is important to mention them in the report, so another research would exactly repeat the research in the same way. Observation locations have changed during the data collection because the concrete barriers were relocated in Denmark. These changes were immediately updated in this research. Deductive quotes and the inductive codes are mentioned in this report, so other researchers can analyze new data in the exact same way. This will ensure a higher repeatability in the reliability of this research.

4.5.3 Transferability

Transferability is established by providing readers with evidence that the research study's findings could be applicable to other contexts, situations, times, and populations (Golafshani, 2003). It aims to provide a richer and fuller understanding of the research setting. Since the sample of this study is small, transferability becomes difficult to obtain. This could be improved by setting up a larger research design in a future research, in which more participants are included.

4.5.4 Confirmability

Confirmability has to do with the level of confidence that the study's findings are based on the participants' narratives and words rather than they are shaped by the researcher (Trochim, 2006). During the interviews, I focused on not to steer the participants in a certain direction, so only personal and quality data was collected. I tried to let the participants come up with answers and to make sure to use keywords, so all aspects of the questions were covered before moving on to the next question. Furthermore, as a researcher, it is important to look at your own background and position to see how this influence the research process. Within this study, I used a research diary to reflect on what was happening in the research process, regarding my own values and interests. This helped me explaining the decisions that were made in the research process.

4.5.5 Ethics

During the interviews, a high consideration was given to ethical concerns at all stages of the study in view of the sensitivity of the subject under investigation. Participants were informed of the aim of the research and were advised of their right to withdraw from the study at any point. The interviews were only tape recorded, with the permission of the participants. Provided information by the participants remained confidentiality and anonymous. No names were used in this report, so that anonymity and confidentiality were maintained.

4.6 Study's limitations

Due to the size of the sample, the generalizability of these findings is limited to other populations. As is common in qualitative research, however, the transferability of findings can be claimed, in that the study account might resonate with other tourists in Denmark and the Netherlands. Depending on the socio-political context of the country as well as its experience of vehicle terrorist attacks, the findings could also be transferred to other tourists within Europe.

Regarding the tape recording of the interviews, the permission of the participants is only vocally confirmed. Within a future research, it is important to confirm permissions on paper as well.

Due to the limited time to conduct this research, this study was limited to how concrete barriers create meanings and whether and how concrete barriers influence the visual- and risk perceptions of tourists in Amsterdam and Copenhagen. This study could have been enriched by investigating in different national contexts, during day AND night, and by including concepts like normativity, consequences of the use of animals on concrete barriers, and on new designs and social uses of concrete barriers. More details on the suggestions for further research can be found in chapter 8.2.

5. Concrete barriers, risk perception, visual perception, and the interrelationships

This chapter describes the results of the 23 conducted interviews and 18 observations within this study. To strengthen the results, some quotes of the interviewees (shown in straight font) and comments of the observations (*shown in italics font*) are added to this chapter. **The bold words** in the quotes and comments highlight important key words within this study. More quotes and comments (coded data) are available in appendix IV.

In many of the interviews, tourists started to talk, without even asking them, about how concrete barriers initially triggered different memories, mainly negative ones, that for many also evoked feelings of fear and sadness when they saw the objects for the first time and how they, after a while, got used to them and accepted them in the landscape. It seems that concrete barriers fast become a normal part of life in cities around the world:

R3Denmark/semi-cam: "You have no doubt what they are. In the beginning, when they were **first put here, they annoyed me** and made me **feel sad**. When you walk through them, they give you a sad feeling. You **realize that actually something can happen** at this place. You know why they are there".

R10Denmar/cam: "The first time I **shocked** when I saw them. I got a bit **afraid** and realized that we got them too. You **get used to them** after a while. Now I see them and walk by them. I know that they need to be here, but they also **remind me that life sucks**".

Even though concrete barriers fast become a normal part of life in cities around the world, not all tourists think the concrete barriers fit in the city landscapes. In some of the interviews, tourists argued how concrete barriers regularly block their ways, feel like obstacles, do not fit the city landscapes, or even pollute the city landscapes. Some of these findings are also ascertained in the observations:

R3Denmark/semi-cam: "I think it could have a **little texture**, so it would **better blend in**, so it **doesn't look like it is just dumped** there".

R4Slovakia/uncam: "When there are many people passing the barriers at the same moment, I have the feeling that they are **impeding my way**. Then I am extra **careful that I won't trip**".

R8Lithuania/uncam: "I **would not sit here and chill**. It is a pedestrian street, so it feels like there should be nothing, so you can just walk through. These barriers feel like **obstacles**".

R23Poland/cam: "The barriers on Dam Square are very simple and **don't fit in the landscape**. They have the purpose of a bench and it looks like that they are just **randomly put there**, to make it safer and to give you a better feeling. Maybe the government can put more flower pots. That would be better than those barriers. I think the municipalities are trying to react now and to make it **temporary safe**".

*There is some **garbage** on the second barrier. An empty coffee cup and some papers. There is also some **litter** around and under the barrier.*

Other things that stood out from the interviews with the tourists were how often tourists associated concrete barriers with migration- or political problems and that they seem to have an expectation that concrete barriers need to have a social function in city landscapes. These thoughts are captured in the following comments:

R9Denmark/uncam: “There is a part in me that **doesn’t want to give the power to control the city landscape** with these barriers. Not like, okay, let’s protect us and we are building barriers. I don’t like this. I think dialogues would be much more efficient. I think instead of being obsessed with building those barriers, there is much more that we can do in a **political sense. This barricading ourselves, is not really the answer.** This is a very ridiculous and **short-term solution**”.

R19Poland/uncam: “Countries with popular tourist destinations or events and countries with **cultural, government, racial, migrant, or religious conflicts**, have a high chance for a vehicle terrorist attack”.

R3Denmark/semi-cam: “Maybe we could **involve restaurants to grow herbs in it.** Why not make them **useful? Educate people** with signs about the flowers that are growing inside the barriers”.

R6Portugal/uncam: “If they are colorful, it would be a nice way **to decorate the city.** Then it would also **be an attraction for tourists.** It can for example have paintings on it and you can make a **puzzle or quiz about it for tourists**”.

R12Belgium/semi-cam: “I think **design and functionality are both very important** and if you can have a combination of them, then it would be perfect. When you make something that **looks nice**, but you **cannot sit** on it, people will get most likely **annoyed** with it, whereas it has another function, like you **can sit** on it, and it **looks nice**, then it is a **good barrier**”.

There seems to be a sort of overall consensus from the data that I obtained that concrete barriers need to have a function in a city landscape, rather than only act as a separate security device. When observing tourists and their interactions with the concrete barriers of this study, as well as interviewing tourists, it seemed that those concrete barriers most often had a social function in the contexts and were often used to; (1) sit down on, (2) use as a tool to take a photo, (3) stand on, (4) use as a playground, (5) put bags on, and (6) use as a marking point for navigation.

The overview in table four, the quotes, and the observation comments below, highlight some of these actions:

Table 4: Overview of social uses of concrete barriers found through observations

Activity	Location 1	Location 2	Location 3	Location 4	Location 5	Location 6	Total
Persons that sit on the concrete barrier	25	40	19	16	114	83	297
Persons that use the concrete barrier as a tool to take a photo (take photo of barrier, take photo while standing on barrier, take photo with barrier)	0	81	3	22	23	34	163
Persons that stand on the concrete barrier	0	0	0	0	3	23	26
Persons that use the concrete barrier as a playground (climbing, jumping)	0	14	5	1	0	5	25
Persons that put a bag on the concrete barrier	2	0	0	9	5	3	19
Persons that use the concrete barrier as a marking point for navigation (looking on map/waiting for somebody/meeting point)	3	0	0	5	4	5	17
Persons that use the concrete barrier as a garbage bin	2	1	0	0	5	4	12
Persons that use the concrete barrier as a table	1	0	0	0	8	0	9
Persons that lean against the concrete barrier	0	4	0	0	4	1	9
Animals that have interactions with the concrete barrier (dogs, pigeons, etc.)	0	1	0	2	1	2	6
Persons that stumble over the concrete barrier (stumbling, falling)	1	0	3	0	0	0	4
Persons that lie on the concrete barrier	1	0	1	0	1	1	4
Persons that park bicycle against the concrete barrier	0	0	0	1	1	1	3
Persons that have interactions with the camouflage of the concrete barrier	0	0	0	3	0	0	3
Persons that use the concrete barrier to tie shoelaces	0	0	0	1	1	0	2
Persons that use the concrete barrier as a social bond device (creates conversation/action between tourist, inhabitant, homeless, etc.)	2	0	0	0	0	0	2

R3Denmark/semi-cam: “When you are going somewhere, when you want to **tie your shoelace**, **sit** in the sun, **put your bag on**, **workout**, or when you **wait** for someone, the objects are nice to use”.

R22Netherlands/uncam: “Sometimes I use them to **put my bag on**, to grab something out of it, or if I need to **tie my shoelaces**, but mostly to **sit** on them”.

*They have some drinks standing on the barrier in between them. In this perspective, the barrier functions as a **bench**, as well as, **a little table**.*

*One kid **plays** with a binocular on the barrier. After playing, he jumps down, and runs away (figure 32 and figure 33 in appendix V).*

*Two persons **sit on the barrier** and **one leans against the barrier**, a fourth person **takes a photo of them on the barrier** (figure 34 in appendix V).*

*At the 1st barrier somebody arrives with a bicycle. She **parks the bicycle against the barrier**, locks it, and walks away.*

*A young man **stands on the 3rd barrier and takes a photo of the square** (figure 50 in appendix V).*

*The two women that **sit** on the 3rd barrier finished their Starbucks drinks and are **looking on a map** now. Later **one of them is** polishing her nails (figure 52 and 53 in appendix V).*

*On the 1st barrier, **two people are seated** and eat something. They are feeding the pigeons in the meantime. One **pigeon walks on the barrier** and is looking for food. A **bicycle is parked** against the 2nd barrier (figure 56 in appendix V).*

Another interesting finding, discovered from my data, is that when tourists talked about the functions of the objects, they also related, without asking them, to the object’s shape and context, and vice versa. There seems to be an important relationship between the social function of the concrete barrier, it’s shape, and the context. This is captured in the following comments:

R3Denmark/semi-cam: “I guess it is a bit **boxy**, but I like that **you can sit on it**. If it has been too rocky, like a nature look, it would be harder to sit on. I have also seen **big black concrete flower pots** in the area around **Norreport**. I think they look really nice, because they don’t look like a big square, but more like decoration”.

R5Norway/cam: “I definitely like the shape of this camouflaged barrier. It is **useful and practical**. It is not just the ugly concrete. You can **sit** on it and **enjoy the view and the water**. This barrier might not be useful in a **busy shopping street**. It is important to consider how design is put into action. This one probably **won’t work at other places**”.

R8Lithuania/uncam: “It looks like a big stone in a weird place. You could feel like it is a **bench to sit** on or to **lie down**, but in a **weird place**. It is a pedestrian street, so it feels like there should be nothing, so you can just walk through. These feel like an **obstacle**”.

R17France/cam: “I like to see **camouflaged and shaped** barriers, such as in the form of a **bench**, so that it **blends into the environment**”.

R18Germany/semi-cam: “I think a lot of people **rest on them**. Which is nice, because it is busy at this **train station**”.

R19Poland/uncam: “The shape is okay. I use them for **sitting or standing to make pictures from the square**. When I stand on top of them, I can look over the people and make nicer pictures. I **don’t like the shape of the barrier without the wood**, the one with the bumps, because that one is **not useful**”.

Within one of the interviews, a tourist also talked about how the shape of the concrete barriers can influence someone's feeling on a context. He commented about the construction of the barriers at Christiansborg Palace in Copenhagen. The square in front of the parliament building was temporarily secured against terrorism in 2013 with granite from Bornholm (as represented in figure 21 and 22), which was placed in a semicircle on the square and later replaced with round granite balls (as represented in figure 23 and 24). It seems that the new shape is more appreciated by tourists and can have a high influence on someone's visual perception:

R10Denmar/cam: "I have seen them in a **round version** next to the parliament building. They **look nice**. They **fit** in with the rest of the architecture. If they need to be there, it is nice that they **fit in the landscape**. First, they were just blocks. They changed it. It remained concrete, but they are **better shaped now**. They are not camouflaged, but at least they took the time now to make it **look nicer**".



Figure 21: Concrete barriers before construction at Christiansborg Palace (Habermann, 2019).



Figure 22: Concrete barriers before construction at Christiansborg Palace (Habermann, 2019).



Figure 23: Concrete barriers after construction at Christiansborg Palace (Habermann, 2019).



Figure 24: Concrete barriers after construction at Christiansborg Palace (Habermann, 2019).

A similar finding was found in the interviews when tourists talked about the colors of the concrete barriers. In many of the interviews, tourists, without even asking them, started to talk about why they would like another color better and often related to the context. This is captured in the following comments:

R1Denmark/cam: “**Color** and material are well chosen, because it is just **next to the waterfront**. It looks like it is **part of town**”.

R4Slovakia/uncam: “Usually it is really **grey**. Not eye catching. It is really **ugly** and just a piece of concrete. It **doesn’t fit the landscape**. It would be **interesting if there were patterns or drawings** on the barriers as a part of the **city decoration**”.

R6Portugal/uncam: “They are always **grey or brown**. Maybe that is for a reason, so people don’t notice them. Maybe if it is, for example, yellow, you will notice them more. On the other hand, if they are **colorful**, it would be a nice way to **decorate the city**. Then it would also be like an **attraction for tourists**. It can for example have **paintings** on it”.

R10Denmar/cam: “They look **very black**. They **look like steel**. I think they are **too aggressive**”.

R14Netherlands/uncam: “It has **neutral colors** and looks like a **square**. They don’t draw attention. There are many places now to **sit down**”.

R22Netherlands/uncam: “It is just **grey**. It doesn’t really have something attractive. I think if you go into **blue colors**, it will be **more colorful**, and it **will change the atmosphere** on the square”.

Within this study, it was interesting to observe that not only there is a clear relationship between many of the respondents’ ideas about whether these objects provoke feelings of fear, anxiety, safety, public realm beautification, etc., but also that these feelings relate clearly to the way how the objects are situated and look in public space. For many tourists in this study, feelings of risk are highly connected to the context and the way how concrete barriers look. Most of them perceived camouflaged barriers as less problematic than semi- and uncamouflaged barriers. For example, the following quotes show that to some tourists uncamouflaged barriers provoked more feelings of unsafety and risk, than camouflaged barriers did to other tourists:

R4Slovakia/uncam: “I think **camouflaging** a barrier is a **good idea**, because then people **don’t feel threatened**, and they **don’t think about the reason why the barrier is there**. They will **feel less afraid** that something might happen. It will **look more like part of the city**”.

R5Norway/cam: “I think this barrier is **not safe**, because it is made of **wood**, but I know there is also **concrete** under it and that does make me feel **safe**. You can design concrete. You can make a seating. You can make something from concrete exactly like this one. The material is very important. **If it would be concrete, I would feel safer**. Then it is really **protecting**”.

R8Lithuania/uncam: "If the barriers are visible as a protection object, rather than part of the city, like a flower bed or a bench, then it becomes more visible that you need to be protected and then the **people who are already paranoid, might experience fear** for a terrorist attack. **They will feel even more afraid** and they will feel that there is a chance that people may drive in with a truck. I feel if the **barriers become sculptures or flower pots**, then they become **less scary** and will **provoke less scary feelings**".

R10Denmar/cam: "There is something nice about **fighting terrorism with strange looking and colorful objects**. The whole idea of people giving them colors and flowers is **nice**, because it gives a **safe and less aggressive feeling**. If you just put the concrete blocks or the **black steel concrete blocks**, it is like you **don't care** anymore. The **bright colors and flowers** give you a **nice feeling**".

There also seems to be a relationship, from the data that I obtained, between the negative feelings of tourists and their position to surreptitiously embed the objects within the city landscapes. Some tourists in this study first mentioned how the objects provoked feelings of risk, fear, and annoyance and later indicated in this study how they are supporting the surreptitiously embedding of these objects within the city landscapes. It seems that to these tourists, the appearance of the object (visual perception) influences the construction of feelings regarding the object (risk perception). This is captured in the following comments:

R4Slovakia/uncam: "They are **impeding my way**. I am extra **careful that I won't trip** over them. I think **camouflaging** the barriers is a **good idea**, because then people **don't feel threatened**, and they **don't think about the reason why the barrier is there**. They will **feel less afraid** that something might happen. It will then **more look like part of the city**".

R10Denmar/cam: "The first time I **shocked** when I saw them. I got a bit **afraid**. You **get used to them** after a while. Now I see them and walk by them. I know that they need to be here, but they also **remind me that life sucks**. The whole idea of people giving them colors and flowers is **nice**, because it gives a **safe and less aggressive feeling**. There is something nice about **fighting terrorism with strange looking and colorful objects**. If you just put the concrete blocks or the **black steel concrete blocks**, it is like you **don't care** anymore".

There also seems to be a sort of overall consensus from the data that I obtained, that some tourists who perceived feelings of risk and anxiety, used their position in the capital (place reasoning), as rationalization for these feelings, while other tourists that experienced feelings of security and safety, pointed more towards physiological reasoning like 'not allowing terrorists to win' and 'people have a higher chance to die from other things':

R6Portugal/uncam: "**Copenhagen is a good target** for a vehicle terrorist attack. It is very international here. You could reach a lot of media and nationalities".

R22Netherlands/uncam: "I have the feeling that **Amsterdam is a high target** in the Netherlands. Amsterdam is a big city and when there is something like an event or when there are a lot of people, I think you can easily do some terrorism. I think **there is a high risk that something can happen in Amsterdam**".

R10Denmar/cam: "I feel a little bit **safe** and **try to not to think about terrorism**. The whole thing about terrorism is that you want to scare people. If I was **afraid for terrorism, I also should be afraid of alcohol and cigarettes**. I mean how many people die from terrorism on a yearly basis".

R21Netherlands/uncam: "I feel **safe** next to the barriers. I **never had the desire to let terrorist win or dictate my life**. I don't have the feeling that something can happen here. I think **other**

places, busy places like festivals where you can attack many people at the same time, **have a higher chance** for a terrorist attack”.

The data in this study also showed that there are four different main positions towards concrete barriers, namely a negative position, impartial neutral position, conflicting neutral position, and a positive position. The different positions will be explained in more depth below:

1. Negative position:

The first position is a very negative position whereby in the interviews, tourists talked about how concrete barriers feel like obstacles, trigger negative memories, and create feelings of false security. The idea that concrete barriers on our streets make people feel safer is usually taken as a given. Tourists in this study actually said that the concrete barriers act as a warning signal, directing their attention to potential danger in the vicinity. Or they suggested that the sight of concrete barriers could provoke feelings of anxiety or fear and trigger avoidance of the place or automatic mental associations of concepts like vehicle terrorism or terrorism in general. As some of the respondents commented:

R1Denmark/cam: “This place would be an **obvious target**. It is more a symbol than a real protection. It generates a sense of **false security**. They **do not give me a safe feeling**. It is like when you see a policeman in the street, you feel safe, because he is there, but he also **reminds you that crime** is there. I understand they need it, but every time they come up with solutions, terrorists will also think about new ways to do something bad. It seems that **we are not fixing the problem**. So, what is the most important? The symbol is probably what they want to achieve. We are doing something. We are trying to attend the issue”.

R3Denmark/semi-cam: “I don’t want it to look like Germany, **in the second world war**, where everywhere are concrete blocks and walls. It is important to build them appropriate in the city picture. Combine them with nature. The boring concrete barriers **scare people** and **remind people of the bad things** that can happen to you. In our history, we had those things in the middle of the square **to hang people**, but also to **scare people**. You don’t want to do that”.

R3Denmark/semi-cam: “I think it could have a **little texture**, so it would **better blend in**, so it **doesn’t look like it is just dumped** there”.

R8Lithuania/uncam: “I **would not sit here and chill**. It is a pedestrian street, so it feels like there should be nothing, so you can just walk through. These barriers feel like **obstacles**”.

R15Netherlands/uncam: “They are weird objects and give me **negative feelings**. I **don’t feel very safe** here”.

R17France/cam: “I might want to **avoid** this place, because it might be **risky**. I think they don’t place the barriers here without any reason”.

R21Netherlands/uncam: “I think these objects are **decoration tools rather than security devices**. They are usually put down after an attack has happened. The attacks still are situations we cannot foresee. When you strengthen a place with these barriers, will the terrorists still go there? Is it useful to do this”?

R23Poland/cam: “Even though I am here and standing next to the barriers, I **don’t feel very safe**. I do know why they are there, and I do see them, but they still look small. If I would be next to the barrier and see the car approaching, I **would not feel safe**. I see them, but I **don’t think they would actually help**”.

2. Impartial neutral position:

The second position is a neutral position whereby in the interviews, tourists were impartial. For these tourists, the barriers did not provoke any positive- or negative perceptions related to risk or sight. These feelings are captured in the following comments:

R1Denmark/cam: "There is **no difference** to me in **feelings** when looking to **camouflaged barriers** or **uncamouflaged barriers**".

R8Lithuania/uncam: "**I don't think they give me a feeling** at all. To be honest, if they would be here or not, I **would exactly feel the same**".

R16Italy/uncam: "**I don't think I feel very safe or very unsafe**. I sit there. I **don't think about my safety**".

3. Conflicting neutral position:

The third position is a neutral position whereby in the interviews, tourists made conflicting statements. Within this position, the tourists commented in the interviews how the objects provoked positive feelings, as well as, negative feelings:

R17France/cam: "They keep you **constantly reminded of possible terrorist attacks**. I think it **stops the attacks**. This gives me a **safe feeling**. However, on the other side, it also gives me an **unsafe feeling**, because they are here, and they are **probably needed to protect us**. It reminds me of the fact that we live in a world where those attacks happen and probably it can happen here as well. I think the **police will have suspicions about an attack**".

R19Poland/uncam: "On one hand I feel **safe**, because they **protect** me against those attacks with cars or trucks, but on the other hand, I **do not feel safe**, because they **remind me that terrorism** is happening a lot. And also, other types of terrorist attacks can still happen. I think you are **never safe somewhere**. I will **always have a little fear** and **concern** that something can happen".

4. Positive position:

The fourth position is a positive position whereby in the interviews, tourists talked about how concrete barriers provoke feelings of safety, security, and public realm beautification:

R2Netherlands/semi-cam: "I have a **safe feeling** when I walk here. The object itself gives me a safe feeling and reminds me that **somebody thought about the safety** of this street and the people walking over here. **Places that do not have these barriers, have a higher chance** for a vehicle terrorist attack. It is a **good solution for safety**".

R3Denmark/semi-cam: "Even though the barriers **look ugly** and you are **sad** that they need to be put up, it is also a **good idea** that they are here, because something can actually happen here. I **don't want to avoid** this place with the barriers. When you think about it, this actually may be **the safest place to be**".

R13United-States/cam: "It **looks like furniture**. It **fits** here. I don't have the feeling that I want to avoid this place".

R18Germany/semi-cam: "I know the function of the objects and when I walk down the hallway, no cars or anything can go through them, so behind the barriers I feel **safe**. Knowing that there are measurements taken to prevent something, already gives me a **safe feeling**".

R19Poland/uncam: "The barriers **do not restrict or impede my use of sidewalks** and they **do not influence how I move around the city**. I am **not going to avoid** a place when I see them. I just go where I want to go".

R20Netherlands/cam: "These objects give me a **safe feeling**, because they **make the space smaller**. When the **barriers would not be here**, I would **feel unsafe**".

Therefore, within this study, tourists often started to talk, without even asking them, about certain relationships between their ideas about whether concrete barriers provoke feelings of fear, anxiety, security, safety, public realm beautification, etc., but also about how these feelings relate clearly to the way how the objects are situated and look in public space. From the data that I obtained in this study, four different main positions towards concrete barriers could be recognized, namely a negative position, impartial neutral position, conflicting neutral position, and a positive position.

6. Analysis

Academic research on the impact of terrorism on tourism has developed substantially over the last two decades, but the scope of these studies remained somewhat limited regarding vehicle terrorist attacks and their security responses. The scholars that focused on how concrete barriers became an ever more common feature of city landscapes and how they affected cities, their inhabitants, and tourists, made many assumptions, but not one clear direction could be found. This study was conducted to better understand how concrete barriers create meanings and whether and how these objects influence the visual- and risk perceptions of tourists. Chapter two and three covered a range of studies from tourism research dealing with various factors which are investigated in the context of concrete barriers, risk perception, and visual perception, that helped to inform the overall research problem of this study. Chapter five provided insights about how tourists in this study gave meaning to the concrete barriers and how this related to other meanings. As we could see in the previous chapter, four different main positions towards concrete barriers could be recognized in this study. This chapter presents an analysis of the results based on the conceptual model of this study.

Relevance of object:

Within this study, the tourists were the subjects that were standing in relations of conscious acquaintance or awareness with the objects. In total, 178 tourists were asked about their opinion about the surrounding. When the tourists had no conscious acquaintance about the concrete barriers, they would not be able to form visual- and risk perceptions in the first place, and therefore, they were not invited to take part in this study (149 tourists). This shows that to many tourists, the objects did not stand out and were not observed in the first place.

When tourists observed the objects and had conscious acquaintance about the objects, perceptions were most likely to be formed and the tourists were invited to take part in this study (29). Unfortunately, not all interviews yielded substantial data due to language limitations, time limitations, and in some cases, lack of willingness to develop views in length or the reticence to talk about vehicle terrorism, leading to 23 interviews conducted. Even within the 23 interviews conducted, some tourists showed feelings of discommodore or embarrassment, when talking about vehicle terrorism, and talked from a third-person point of view or gave short and non-detailed replies during the interview. This reticence to talk about vehicle terrorism showed to me that normativity is something we should not forget when studying how tourists create meanings and whether and how concrete barriers influence the visual- and risk perceptions of tourists. In some interviews, talking about vehicle terrorism and the concrete barriers seemed to be bad or undesirable. One tourist in this study mentioned for example how he did not like to talk about the subject and that it felt scared for him to talk about vehicle terrorism in public. The few normative comments that were made by the tourists in this study, did not seem to influence the tourists' meanings and formulations of risk- and sight to a large extend. Despite this, I think it is still important to add the concept of normativity to the conceptual model of this research, so within a new study, normative assumptions are more considered when gathering data from the research participants. Adding this concept to the conceptual model, could influence the research design and outcomes of a repeat study. The new conceptual model is presented at the end of this chapter.

Object and risk perception:

Chapter five gave evidence that a range of emotional responses operate on the nexus between the objects and tourists in this study and crucially alter tourists' perceptions on risk. From the

data that I obtained, a strong emotional response to the perceived threat of vehicle terrorism could be observed, with tourists pointing to feeling fearful, anxious, and worried while standing next to the barriers. Responses frequently related to how the objects only symbolized security and thus, created feelings of false security, acted as a warning signal, directed their attention to potential danger in the vicinity, and triggered avoidance of a place or automatic mental associations of concepts like vehicle terrorism or terrorism in general. Other tourists in this study experienced feelings of safety, security, and no need to be afraid or concerned that a vehicle terrorist attack could happen at the place of the objects. To them, the objects signified that vehicle terrorism did not constitute a major threat. These tourists are determined that the objects create safe zones within the city landscapes.

The data in this study also showed that some tourists are impartial and that to them, the barriers do not provoke any positive or negative perceptions related to risk.

Objects and visual perception (context):

Various tourists in this study mentioned how objects are just there to do its duty, do not fit the landscape, are just decoration tools rather than security devices, are used as garbage dumps, or are being avoided. To some tourists in this study, the objects triggered negative memories and feelings (referring to checkpoint Charlie and the Second World War) and impeded regularly their operational use of sidewalks. To other tourists in this study, the objects provided a public realm beautification in city landscapes. Those tourists mentioned how the concrete barriers create a nice atmosphere, fit the surrounding, and do not restrict or impede their use of sidewalks.

There seems to be a sort of overall consensus, from the data that I obtained, that concrete barriers need to have a function in a city landscape, rather than only act as a separate security device. When observing tourists and their interactions with the concrete barriers, as well as interviewing tourists, it seems that the concrete barriers are most often used in city landscapes to sit down on, use as a tool to take a photo, stand on, use as a playground, put bags on, and use as a marking point for navigation. Some tourists in this study also pointed to how the social uses of concrete barriers could be improved in certain contexts by pointing to involving restaurants to grow herbs in it, educating people with signs about the flowers that grow inside the barriers, having paintings or drawings on them, or making them interactive by adding buttons that tell information about the surrounding.

Objects and visual perception (visual properties):

This data of this study showed that different characteristics like size, color, shape, whether it is visible (uncamouflaged) or not (camouflaged), regularly influence the visual perceptions of the tourists in this study. Some tourists in this study referred to how the shape of the objects created feelings of acceptance and satisfaction and that certain materials can give someone a more relaxed feeling or disguise the actual reason why the object is there in the first place. In terms of materials, tourists in this study repeatedly mentioned how natural materials are perceived attractive (e.g. wood, plants, flowers, and water) and how coloring the barriers with happy, bright, and notable colors (like blue, instead of 'boring' grey and 'aggressive' black), would improve the atmosphere in the city landscapes. Some tourists in this study proposed to shape the barriers in sculptures, flower pots, or benches, so they provoke less scary feelings, stop letting you think about the real purpose, and have a social function in the city landscapes. This last argument, having a social function in the city landscapes, is regularly mentioned by the tourists in this study. Concealing the primary task of the concrete barriers with shapes and

forms that have a social use, natural materials, and bright colors, seem to be important to some tourists in this study. This shows that to some tourists, it is essential to not only endow the objects with value, but also to improve the objects' attractiveness and social acceptance within the city landscapes.

Objects, risk- and visual perceptions:

A relationship is often assumed between the objects and feelings of fear, anxiety, risk, public realm beautification, etc. The relationship and the idea that concrete barriers on our streets make people feel safer is usually taken as a given. This study showed that this relationship is much more complex and is clearly influenced by the way how the objects are situated and look in public space. Different locations like the Amsterdam central train station, the big Dam square, cozy Nyhavn, or pedestrian street Rådhuspladsen and Strøget, all let tourists in this study, form different realities. For many tourists in this study, feelings of risk were highly connected to the context and the way how concrete barriers looked. Most of them perceived camouflaged barriers as less problematic than semi- and uncamouflaged barriers. The amount of the barriers placed, the location of the barriers placed, and the visual properties of the barriers, all triggered memories to the tourists in this study and helped tourists to form risk perceptions.

Revised conceptual model:

Based on this analysis, where the importance of normativity is discussed, it is important to slightly adjust the conceptual model of this study, as presented before in chapter 3.5. The few normative comments that were made by the tourists in this study, did not seem to influence tourists' meanings and formulations of risk- and sight to a large extend. Despite this, I think it is important to add the concept of normativity to the conceptual model of this research, so within a new study, normative assumptions are more considered when gathering data from the research participants.

This obtained data of this study showed that there is not only a relationship between the tourists' ideas about whether concrete barriers provoke feelings of fear, anxiety, security, safety, public realm beautification, etc., but also about how these feelings relate clearly to the way how the objects are situated and look in public space. Therefore, the consideration that there is a relationship between visual perception (the visual properties of the objects and the context) and the perceptions of risk, seems to be true, and can be remained in the conceptual model. The revised conceptual model is presented in figure 25.

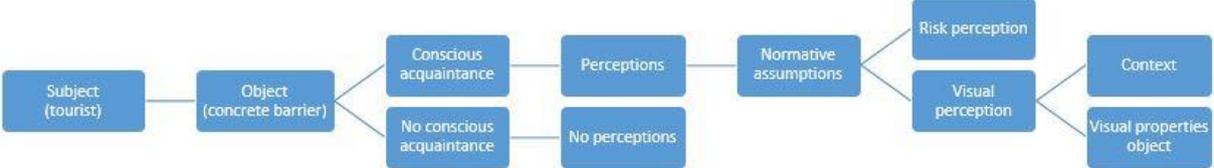


Figure 25: Overview of revised conceptual model.

7. Discussion

This chapter comments on whether the results were expected for each aspect of this study and links the results, as presented in chapter five, with those of others as presented in the literature review in chapter two. By doing so, I refer to the assumptions made in chapter two and critically discuss if the study's results and the way how the respondents in this study gave meaning to the objects and constructed their realities subjectively on sight and risk, are in line with these assumptions. Figure 26, shows an overview of the most important assumptions made by the scholars on perceptions in chapter 2. This overview helps to summarize the literature review of this study and acts as a structure for the discussion. First, the relevance of the objects will be discussed, followed by a comparison of this study's results and the findings of other studies related to risk perception. Finally, a comparison regarding visual perception and the relationship between these perceptions will be discussed.

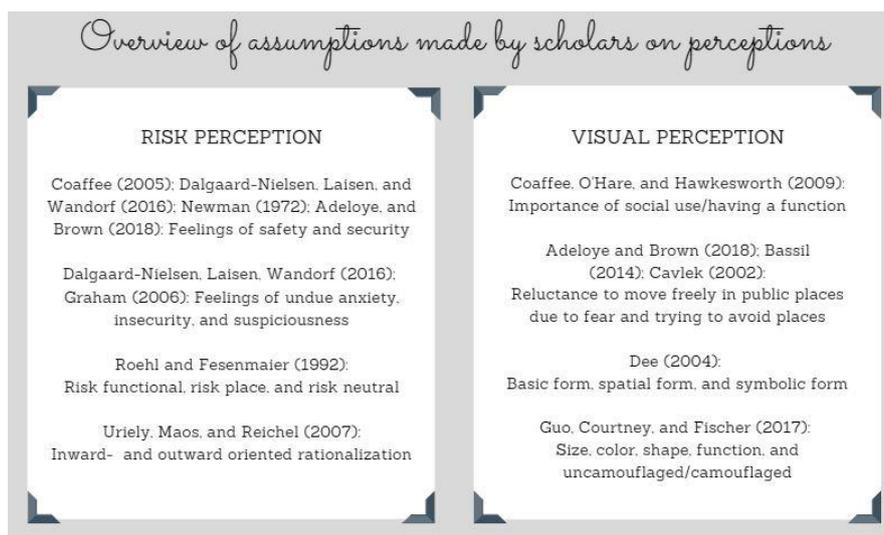


Figure 26: Overview of assumptions made by scholars on perceptions.

In the literature, many scholars assume relationships between the objects and visual- and/or risk perceptions. What surprises me, is that none of those scholars, actually talked about the amount of tourists who did not observe these objects. Their focus is mainly only on assumed relationships between the objects and feelings of fear, anxiety, risk, public realm beautification, rationalizations, etc., but none of them, actually studied how many tourists do not observe these objects and why they do not observe them. In this study, 178 tourists were asked about their opinion about the surrounding, from which 149 tourists had no conscious acquaintance about the concrete barriers and 29 showed conscious acquaintance. Therefore, this study showed that most tourists, did not notice or observe the objects in the city landscapes in the first place. Since this finding did not form the main research topic in this study (the perceptions and meanings themselves did), I did not focus on researching this phenomenon in more depth, but I think, it is worth mentioning, that this is already a very interesting finding within this study. Another concept that is not earlier discussed by scholars, but did in my opinion, influence to some extend the tourists' risk- and visual perceptions in this study, is normativity. This study found that normativity is something we should not forget when studying how concrete barriers create meanings and whether and how concrete barriers influence the visual- and risk perceptions of tourists.

Within the literature, a relationship is often assumed between the objects and feelings of fear, anxiety, and risk. The relationship and the idea that concrete barriers on our streets make people feel safer, is usually taken as a given. Even though many scholars introduced this assumption in the literature review (Coaffee, 2005; Connell, 2009; Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Newman, 1972; Adeloje & Brown, 2018) and some tourists in this study experienced feelings of safety and security, this study showed that this relationship is much more complex and is clearly influenced by the way how the objects are situated and look in public space. Some tourists in this study experienced feelings of fear and insecurity (as introduced by Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Graham, 2006), while standing next to the barriers. These feelings were often motivated by the context and visual properties of the objects (being present in a capital and by seeing the weakness of the solid appearance of the objects). The tourists in this study mentioned that big cities are very vulnerable for vehicle terrorist attacks and that concrete barriers do not abate this fear. This reasoning for fear and anxiety, is not earlier discussed by other scholars in this study, and shows that the relationship between the objects and risk is much more complex and is clearly influenced by the way how the objects are situated and look in public space. There seems to be a sort of overall consensus, from the data that I obtained, that some tourists who perceived feelings of risk and anxiety, used their position in the capital (place reasoning), as rationalization for these feelings. While other tourists, who experienced feelings of security and safety, pointed more to outward-oriented rationalizations (emphasizing the risks that exist elsewhere), inward-oriented rationalizations (by stressing the safety within the destination and the confidence in the government), and to physiological rationalizations (like 'not allowing terrorists to win' and 'people have a higher chance to die from other things'). This shows that the classification assumption (inward- and outward oriented rationalization) of Uriely, Maoz, and Reichel (2007) is incomplete and could be expanded with, for example, 'physical rationalization'. The assertion of Roehl and Fesenmaier (1992) to classify tourists into three groups based on their risk perception (place risk, functional risk, and neutral risk), also seems to be a limited classification system, as within this study, already four main positions (negative position, impartial neutral position, conflicting neutral position, and positive position) were observed. Therefore, the classification system of Roehl and Fesenmaier (1992) should be at least exists of the following classification groups; place risk, functional risk, physiological risk, impartial neutral risk, and conflicting neutral risk.

I strongly believe that the objects do not (yet) provoke to all tourists feelings of security and safety and state that hypothesis H3 (uncamouflaged concrete barriers look ugly, but provoke feelings of safety and security) is false. I truly feel that tourists more often experience feelings of unsafety and risk at sites with uncamouflaged barriers than at sites with semi- or uncamouflaged barriers and experience at sites with camouflaged barriers more public realm beautification in the city landscapes than tourists at sites with uncamouflaged barriers. Therefore, I state that hypothesis H2 (only camouflaged concrete barriers provoke feelings of safety and security) is also false.

To many tourists, the objects still impede the city's commerce and vitality, sometimes restrict, or impede operational use of sidewalk, and do not (yet) provide public realm beautification (as presented by Adeloje & Brown, 2018; Bassil, 2014; Cavlek, 2002). Some of the tourists mentioned how the concrete barriers are just there to do its duty, do not fit the landscape, are used as garbage dumps, and only act as warning signals, directing the attention of tourists to potential danger in the vicinity. This indicates to me that some tourists indeed associate the concrete barriers with vehicle terrorist attacks and that, as suggested by Coaffee, O'Hare, and

Hawkesworth (2009), the objects need to be more surreptitiously embedded within the city landscapes. I believe that as long as these objects are not properly embedded within the city landscapes and still obviously serve as a security purpose, they will continue to harm the suspicion-free public spaces. Therefore, from my point of view, it seems that hypothesis H4 (concrete barriers provide public realm beautification) can be considered false in this study.

The literature in chapter two, did not empirically assess the social use (functions) of concrete barriers, so this study investigated the social uses of the objects, to bring new insights. There seems to be a sort of overall consensus, from the data that I obtained, that concrete barriers need to have a function in a city landscape, rather than only act as a separate security device. When observing tourists and their interactions with the concrete barriers of this study, as well as interviewing tourists, it seemed that those concrete barriers most of the time had a social function in the contexts and were often used to sit down on, use as a tool to take a photo, stand on, use as a playground, put bags on, or use as a marking point for navigation.

The obtained data of this study, showed how shape, material, and color, of the objects can influence someone's feeling on a context and vice versa. This is in line with the assumptions of Dee (2004), and Guo, Courtney, and Fischer (2017), who described how feelings can be influenced relatively easily by design, construction, and management of objects. Several tourists in this study proposed to shape the barriers in sculptures, flower pots, or benches, to use natural materials (wood, plants, flowers, and water) and to use bright, notable, and happy colors (like blue, instead of 'boring' grey and 'aggressive' black), to improve the atmosphere in the city landscapes. Tourists in this study sometimes talked, without even asking them, about the relationship between the object's visual appearance and the context. This relationship is earlier discussed by some scholars (Connell, 2009; Coaffee, 2005; Dalgaard-Nielsen, Laisen, & Wandorf, 2016; Newman, 1972; Adeloje & Brown, 2018) who stated how camouflaging the objects could influence the feelings of tourists on urban space. Also, other circumstances of the object, like functionality, the amount of barriers placed at one location, and whether the object is camouflaged or not, formed unique settings of how the object in the context was understood by some tourists in this study. This study showed to me, that placing too many barriers in a city landscape with the intention of increasing visibility, can also turn out to be wrong and can give a feeling of anxiety instead. I believe that urban spaces are vital for our societies, and therefore, in my opinion, the design of the objects should be unobtrusive and as socially acceptable as possible. I believe that some adjustments in design and appearance could give someone more relaxed feelings or disguise the actual reason why the barrier is there in the first place.

There seems to be a relationship, from the data that I obtained, between tourists' risk perceptions and visual perceptions. Therefore, it can be stated that hypothesis H1 (concrete barriers do not influence the visual- and risk perceptions of tourists in Amsterdam and Copenhagen) is false, because this study showed that visual perception itself (the visual properties of the objects and the context) actually could influence the risk perceptions for some of the tourists in this study. This relationship between visual perception and risk perception is not earlier discussed in the literature.

8. Conclusion

Within this chapter, the main research question and its sub-questions will be answered. By answering the research questions, areas for improvement of concrete barriers, and the way they create meanings and provoke negative and positive feelings of risk and safety to tourists in Amsterdam and Copenhagen, enables the exploration of how concrete barriers can be possibly enhanced in the future. Subsequently, this chapter concludes by describing suggestions for future research, and the practical applicability of the findings.

8.1 Conclusion

This study started by problematizing the many assumptions made on how concrete barriers affect cities, their inhabitants, and tourists. It seemed that scholars had no clear direction, no real consensus could be found in the literature, and that this subject has not (yet) been properly studied. As such, I aimed to better understand how concrete barriers create meanings and whether and how concrete barriers influence the visual- and risk perceptions of tourists in Amsterdam and Copenhagen. To guide this study, I narrowed the scope of this research, formulated a research question with its own three accompanying sub questions, and combined existing literature with new findings of this study. Throughout this study, links were made between the study's findings and findings in the literature, which showed that there was considerable overlap. The answers to the research (sub) questions can be find below:

SQ 1: How do tourists in Amsterdam and Copenhagen observe and use concrete barriers?

Within this study, 178 tourists were asked about their opinion about the surrounding. When the tourists had no conscious acquaintance about the concrete barriers, they would not be able to form visual- and risk perceptions in the first place, and therefore, they were not invited to take part in this study (149 tourists). When tourists had conscious acquaintance about the concrete barriers, meanings and perceptions were most likely to be formed, and the tourists were invited to take part in this study (29). Unfortunately, not all interviews yielded substantial data due to language limitations, time limitations, and in some cases, lack of willingness to develop views in length or the reticence to talk about vehicle terrorism, leading to 23 interviews conducted. Some tourists in this study experienced feelings of fear, discomode, or embarrassment, when talking about vehicle terrorism, and either have withdrawn from the interview, talked from the third-person point of view, or gave short and non-detailed replies during the interview. This reticence to talk about vehicle terrorism showed me that normativity played an important role in this study. It showed that even when tourists have conscious acquaintance about the objects, each person will be or will not be influenced by normativity, when creating meanings and formulating risk- and visual perceptions. All the tourists observed the same objects, but all created different realities around the objects with their own meanings. Overall it can be stated that most tourists in this study, did not notice or observe the objects in the first place.

There seems to be a sort of overall consensus between the tourists who did observe the objects, that concrete barriers need to have a function in a city landscape, rather than only act as a separate security device. This study found that concrete barriers are mostly used as a device to sit down on, use as a tool to take a photo, stand on, use as a playground, put bags on, or use as a marking point for navigation. Some respondents also pointed to how the social uses of concrete barriers could be improved in certain contexts by pointing to involving

restaurants to grow herbs in it, educating people with signs about the flowers that grow inside the barriers, having paintings or drawings on them, or making them interactive by adding buttons that tell information about the surrounding.

SQ 2: How do concrete barriers influence the visual perceptions of tourists in Amsterdam and Copenhagen?

Concrete barriers do not (yet) provide public realm beautification, which is contradicting hypothesis H4 (concrete barriers provide public realm beautification). Various tourists in this study mentioned how the concrete barriers are just there to do its duty, do not fit the landscape, are just decoration tools rather than security devices, are used as garbage dumps, or are being avoided. To some tourists in this study, the objects triggered different memories, either positive or negative ones, and impeded regularly their operational use of sidewalks. Concrete barriers also seem to sometimes let tourists trip over the objects, stop the flow of people, and block entrances. To some other tourists, objects provided public realm beautification in city landscapes. Those tourists mentioned how the concrete barriers create a nice atmosphere, fit the surrounding, and do not restrict or impede their use of sidewalks

Concrete barriers exist in many different shapes and forms. Different characteristics like size, color, shape, whether it is visible (uncamouflaged) or not (camouflaged), influenced the visual perceptions of the tourists in this study. The importance of providing an attractive environment by considering the aesthetic quality, maintenance, aesthetic sustainability, technical sustainability, and social sustainability, of the concrete barriers is considered as essential within this study. Some tourists in this study referred to how the shape of the objects created feelings of acceptance and satisfaction and that certain materials can give someone a more relaxed feeling or disguise the actual reason why the object is there in the first place. In terms of materials, tourists in this study repeatedly mentioned how natural materials are perceived attractive (e.g. wood, plants, flowers, and water) and how coloring the barriers with happy, bright, and notable colors (like blue, instead of 'boring' grey and 'aggressive' black), would improve the atmosphere in the city landscapes. Some tourists in this study proposed to shape the barriers in sculptures, flower pots, or benches, so they would provoke less scary feelings, stop letting you think about the real purpose, and have a social function in the city landscapes. This last argument, having a social function in the city landscapes, was regularly mentioned by tourists in this study. Concealing the primary task of concrete barriers with shapes and forms that have a social use, natural materials, and bright colors, seem to be important to some tourists in this study. This shows that it is essential to not only endow the objects with value, but also to improve the objects' attractiveness and social acceptance within the city landscapes.

SQ 3: How do concrete barriers influence the risk perceptions of tourists in Amsterdam and Copenhagen?

A range of emotional responses operate on the nexus between the objects and tourists in this study and crucially alter these tourists' perceptions on risk. A strong emotional response to the perceived threat of vehicle terrorism was observed, with tourists pointing to feeling fearful, anxious, and worried while standing next to the barriers. Responses frequently related to how the objects only symbolized security and thus created feelings of false security, acted as a warning signal, directed their attention to potential danger in the vicinity, and triggered avoidance of a place or automatic mental associations of concepts like vehicle terrorism or terrorism in general. Among other tourists in this study, concrete barriers provoked feelings of

safety, security, and no need to be afraid or concerned that a vehicle terrorist attack could happen at the place of the objects. To them, the objects signified that vehicle terrorism did not constitute a major threat. These tourists were determined that the objects create safe zones within the city landscapes. Tourists who perceived feelings of risk and anxiety, often used their position in the capital (place reasoning), as rationalization for these feelings. While other tourists, who experienced feelings of security and safety, pointed more to outward-oriented rationalizations (by emphasizing the risks that exist elsewhere), inward-oriented rationalizations (by stressing the safety within the destination and the confidence in the government), and to physiological reasoning (like 'not allowing terrorists to win' and 'people have a higher chance to die from other things'). Some tourists also showed an impartial position towards feelings of risk provoked by the objects. To these tourists, the objects did not provoke any positive- or negative perceptions related to risk.

RQ 1: What is the interrelationship between concrete barriers, visual perceptions, and risk perceptions, among tourists in Amsterdam and Copenhagen?

A relationship is often assumed between the objects and feelings of fear, anxiety, risk, public realm beautification, etc. The relationship and the idea that concrete barriers on our streets make people feel safer is usually taken as a given. This study showed that this relationship is much more complex and is clearly influenced by the way how the objects are situated and look in public space. For many tourists in this study, feelings of risk were highly connected to the context and the way how concrete barriers looked. This study found out that the appearance of the object can influence how someone perceives the object in a context. The color, shape, and material of a concrete barrier influence to what extent the object fits into a city landscape. Also, other circumstances of the object like functionality, amount of barriers at one location, and whether the object is camouflaged or not, seemed to form unique settings of how the object in the context could be understood by the tourists. Within this study, a relationship was observed between the negative feelings of tourists and their position to surreptitiously embed the objects within the city landscapes. Some tourists in this study first mentioned how the objects provoked feelings of risk, fear, and annoyance and later indicated in this study how they are supporting the embedding of these objects within the city landscapes. Also, the appearance of the barriers triggered memories to some tourists, either positive or negative ones, that in the end influenced the risk perceptions of some tourists in this study.

Most of the tourists in this study perceived camouflaged barriers as less problematic than semi- and uncamouflaged barriers. This study found out, that camouflaging the objects, can positively influence the visual- and risk perceptions of tourists and in the end, let some tourists feel safer. In this study, tourists more often experienced feelings of unsafety and risk at sites with uncamouflaged barriers than at sites with semi-camouflaged or camouflaged barriers and experienced at sites with camouflaged barriers more public realm beautification in the city landscapes than tourists at sites with uncamouflaged barriers. Therefore, hypothesis H3 (uncamouflaged concrete barriers look ugly, but provoke feelings of safety and security), can be considered for most tourists in this study false. However, this study also showed that not all tourists perceived feelings of safety and security at sites with camouflaged barriers. As mentioned before, all tourists thought differently about the concrete barriers and formed different perceptions and feelings. Within this explorative study, it is not possible to generalize all tourists and make general statements about visual perceptions and risk perceptions. Therefore, hypothesis H2 (only camouflaged concrete barriers provoke feelings of safety and security) is considered, for most of the tourists, false in this study.

This study showed that there are four different main positions towards concrete barriers. The first position is a very negative position whereby in this study, tourists talked about how concrete barriers feel like obstacles, trigger negative memories, and create feelings of false security. The idea that concrete barriers on our streets make people feel safer is usually taken as a given. These tourists however said that the concrete barriers actually act as a warning signal, directing their attention to potential danger in the vicinity. Or they suggested that the sight of concrete barriers could provoke feelings of anxiety or fear and trigger avoidance of the place or automatic mental associations of concepts like vehicle terrorism or terrorism in general. The second position is a neutral position whereby in the interviews, tourists were impartial. For these tourists, the barriers did not provoke any positive- or negative perceptions related to risk or sight. The third position is a neutral position whereby in the interviews, tourists made conflicting statements. Within this position, the tourists commented in the interviews how the concrete barriers provoked positive feelings, as well as, negative feelings. The last position, is a positive position whereby in the interviews, tourists talked about how concrete barriers provoke feelings of safety, security, and public realm beautification.

All the above-mentioned statements highlight that certain interrelationships exist between concrete barriers, visual perception, and risk perception. Therefore, it can be stated that hypothesis H1 (concrete barriers do **not** influence the visual- and risk perceptions of tourists in Amsterdam and Copenhagen) is false, because this study showed that visual perception itself (the visual properties of the objects and the context) actually could influence the risk perceptions for some of the tourists in this study.

Despite all, it is important to remember that formulating meanings and perceptions are intrinsic processes that are largely dependent on how someone constructs his or her own reality. Visual perception and risk perception are actually the least interesting topics in this study, considering that tourists associate objects all differently and thereby all create different perceptions. Concrete barriers are in the end not appreciated because they are camouflaged or nicely shaped, but through all those layers of meaning formed by the tourists.

8.2 Suggestions for future research and practical applicability

This study marks an early step in researching the impact of concrete barriers to the visual- and risk perceptions of tourists. Given the value of tourism to the tourism industry and terrorism as one of the most significant threats to tourism, it is important that this topic will be further investigated. By better understanding the role of concrete barriers (objects) in city landscapes (contexts), policy makers can be better informed about whether and how the future of concrete barriers should play a larger role in city landscapes. The knowledge based on this topic could be enriched by further research in different national contexts, and by a quantitative study of the link between the perceived risk or perceived sight (caused by the concrete barriers) and implications for travel behavior and travel experience. Different international networks have already been set up in this study in Spain and Belgium, so it will be easier for future researchers to continue this study on international scale (feel free to request contacts via dvanderpol7@gmail.com). The knowledge based on this topic could furthermore be enriched by further research on; the different normative assumptions that exist and are believed to influence the visual- and risk perceptions, the consequences of the use of animals on concrete barriers, the social uses of concrete barriers by night, and on new designs and social uses of concrete barriers. These new topics can help to enrich the knowledge based on this topic.

9. Recommendations for policy makers

If a local administration or policy maker decide that these measurements are important, and if they want to consider the wishes of those people who actually perceive them, then it could be recommended to implement these objects in a customized shape (e.g. sculptures, flower pots, or benches), with more natural materials (e.g. wood, plants, flowers, and water), happy, bright, and notable colors (e.g. blue instead of 'boring' grey and 'aggressive' black), and a useful function in society (e.g. to sit on). It is essential to not only endow the concrete barriers with value, but also to improve the concrete barriers' attractiveness and social acceptance. By more considering the appearance of the objects and better building the objects into the city landscapes, the objects will most likely positively influence the visual perceptions and risk perceptions of tourists and in the end, let tourists feel safer.

For policy makers in Amsterdam, it is important to combine these wishes with the Puccini Method policy framework (Gemeente Amsterdam, 2018) and the four ZETA guidelines (Instituut Fysieke Veiligheid [IFV], 2013). A short overview of the ZETA guidelines is available in appendix VI.

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Appendices

Appendix I: Interview guide

Instructions for the introduction of the interview:

Start with introducing yourself (your name & student of Wageningen). Explain why you are doing the Research, for what (as part of the Master of Science Program Leisure, Tourism, and Environment to gain the Master of Social Sciences at Wageningen University in the Netherlands) and why you selected him/her for your research. Tell the approximate length of the interview (10-40 minutes) and the structure (3 topics). Mention that provided information by the participants will remain confidentiality and anonymity. No names will be mentioned in the report and the participants can withdraw from the study at any point. Ask the participant's permission to record the interview, so you will be able to analyze the interview. When the participant gives permission, tell about the role differentiation. You will ask questions; the participant can answer. In the end, the participant will get the possibility to add things that are not discussed. Ask if the participant minds if you take notes. Then start the interview with the introduction questions.

Instructions for the ending of the interview:

Ask the last questions to close the interview. After this, give a short summary of the interview and ask whether the participant want to add something that has not been previously discussed. Since the snowball sampling technique will be used in this study, ask the respondent if he or she can refer us to another tourist that would be interested to participate in this study. Give your contact information to the participant in case he or she has questions regarding the study and ask for the participant's contact details, in case of missing information or clarifications. Tell the participant what you are going to do with the results of the interview (analysis) and let the participant know that he or she can receive the results if requested. Thank the participant for his or her help and turn off the voice recorder.

Interview guide:

Participant:

Interviewer: Daphne van der Pol

Location:

Date and time:

Introduction

- *Who am I?*

My name is Daphne van der Pol. I am a master student from Wageningen University in the Netherlands, studying leisure, tourism, and environment.

- *What is the aim of my research project?*

To gain the Master of Social Sciences, I am writing a thesis. The aim of my research is to seek a further understanding of the influence of counter-vehicle terrorist attack devices on the perceptions of tourists, with a specific focus on concrete barriers and visual- and risk perceptions of tourists in Amsterdam, the Netherlands and Copenhagen, Denmark. This knowledge can better inform decision makers about whether and how the future of concrete barriers should play a larger role in city landscapes.

- *Why is your participation important?*

I am interested in your perceptions on the concrete barriers (positively or negatively). As a tourist in this city, explaining to me your perceptions of these devices will help me understand what role concrete barriers play in risk management and city landscapes.

- *How long will the interview take?*

This interview will consist of 3 main topics and will take about 10 to 30 minutes. I thank you very much for your participation and I would like to remind you that you can withdraw at any time. Your contribution is voluntary and completely anonymous. No names will be mentioned in the report. I will ask you questions, and you can answer them. When you would like to add things that are not discussed, you could do this at the end of the interview.

- *Could I record this interview, so I can better analyze this interview?*
- *Do you mind if I take some notes?*

Topic 1: Small talk

1. *Where are you from?*
2. *Why are you visiting Amsterdam/Copenhagen?*
3. *What do you think of your experience in Amsterdam/Copenhagen so far?*
4. *Have you visited Amsterdam/Copenhagen before?*
5. *What is your profession back home?*

Topic 2: Visual perception

Dee (2004); Coaffee (2013a); Coaffee, O'Hare, & Hawkesworth (2009): understand how the objects create meanings and whether and how they influence the visual perceptions of tourists.

6. *What do you think of the color of the concrete barrier?*
 - *Why do you think that?*
 - *Negative reply: What color do you like better?*
7. *What do you think of the visual/shape of the concrete barrier?*
 - *Why do you think that?*
 - *Negative reply: What visual/shape do you like better?*
8. *What do you think about camouflaging the concrete barrier?*
 - *Why do you think that?*
 - *What are upsides of camouflaging?*
 - *What are downsides of camouflaging?*
9. *Would you rather see a camouflaged/shaped barrier or a normal concrete barrier that is not camouflaged and shaped?*
 - *Why?*
10. *How does the camouflaging of the barrier influence your feelings of safety in this street?*
 - *Why / why not?*

11. *Does the barrier restrict or impede your use of sidewalks?*
 - *Why / why not?*
12. *In what ways do you use the concrete barrier? (sit/communication etc.)*
 - *When no reply: Imagine yourself walking on the square with the barriers, or waiting on this square, would you use the barrier for anything?*
 - *Mention examples of the observations to give inspiration.*
13. *What do you think of all the people making photos of the barrier?*
14. *What do you think is the purpose of the concrete barrier?*
 - *Why do you feel this way?*
15. *What are upsides of the barrier?*
16. *What are downsides of the barrier?*
17. *Why do you think that the barrier is located at this place in Copenhagen?*
18. *Do you think that the barrier fits in this landscape?*
 - *Why do you think this?*
19. *Does the barrier reminds you of anything?*
20. *How does the concrete barrier influence how you move around in this city?*
21. *Does the barrier influence your feeling of safety when walking through this street?*
 - *Would this feeling change if there were more of them at this street? Why?*
22. *When you see the concrete barrier, do you want to avoid the place?*
 - *Why / why not?*

Topic 3: Risk perception

Roehl and Fesenmaier (1992); Uriely, Maoz, and Reichel (2007); understand how the objects create meanings and whether and how they influence the risk perceptions of tourists.

23. *If you could rate your feeling of safety when you stand next to this barrier with a scale ranging from 1, very low, to 10, extremely high, how would you rate your feeling of safety?*
 - *Why this number?*
24. *And if you could rate your feeling of concern for terrorism when you stand next to this barrier? Again, ranging from 1, very low, to 10, extremely high, how would you rate your feeling of concern for terrorism in this place?*
 - *Why this number?*
25. *Do you feel like other destinations have a higher chance for a vehicle terrorist attack?*
 - *Why do you feel this?*

26. *Have you noticed any news on vehicle terrorism lately in the media?*

- *If yes, any news on vehicle terrorism related to this city?*
- *If yes, how did you feel after watching this news?*

27. *Have you experienced a vehicle terrorist attack yourself?*

28. *You have probably noticed the rise in vehicle terrorist attacks in the past years, think about Nice and Berlin in 2016 or Barcelona in 2017, how did these attacks influence your daily life?*

Ending of the interview

- *Give a short summary of the interview*

It has been a pleasure talking with you. To make sure I fully understood you, I will summarize briefly what you have said. Please feel free to tell me at any time if I misunderstood.

- *Would you like to add anything what is not discussed before?*
- *Is there anyone else you think it might be interesting for me to talk to? Someone who has a different opinion than you perhaps?*
- *If you have any further questions regarding my research here is my contact information. Could I also have your contact information in case of missing information or clarifications?*
- *Within the next weeks I am going to analyze the different interviews. Would you like to receive the results of this report when they are available?*

It has been a pleasure talking with you. Thank you for your time. I will now turn off the voice recorder.

Appendix II: Observation sheet

Table 5: Overview of observation sheet.

Observation location:	Number per observation			
	Activity	09.00-09.45	12.00-12.14	16.00-16.45
	Persons that sit on the concrete barrier			
	Persons that stand on the concrete barrier			
	Persons that lie on the concrete barrier			
	Persons that park bicycle against the concrete barrier			
	Persons that use the concrete barrier as a playground (climbing, jumping)			
	Persons that use the concrete barrier as a marking point for navigation (looking on map/waiting for somebody/meeting point)			
	Persons that use the concrete barrier as a garbage bin			
	Persons that use the concrete barrier as a tool to take a photo (take photo of barrier, take photo while standing on barrier, take photo with barrier)			
	Persons that use the concrete barrier as a table			
	Persons that use the concrete barrier to put (political) artwork			
	Persons that use the concrete barrier as a shelter			
	Persons that use the concrete barrier to tie shoelaces			
	Persons that use the concrete barrier as a social bond device (conversation/action between tourist, inhabitant, homeless, etc.)			
	Persons that stumble over the concrete barrier (stumbling, falling)			
	Persons that have interactions with the camouflage of the concrete barrier			
	Persons that lean against the concrete barrier			
	Persons that put a bag on the concrete barrier			
	Animals that have interactions with the concrete barrier (dogs, pigeons, etc.)			

Appendix III: Overview of research participants

Table 6: Overview of research participants.

Interview's				Interviewee's			
No.	Location	Date	Length	Profession	Nationality	Gender	Age
1	Copenhagen - 5	01-04-19	25 minutes	Logistics company	Danish	M	50
2	Copenhagen - 6	01-04-19	19 minutes	Healthcare	Dutch	F	50
3	Copenhagen - 6	02-04-19	23 minutes	Information technology	Danish	F	30
4	Copenhagen - 4	03-04-19	10 minutes	Financing	Slovakian	F	20
5	Copenhagen - 5	03-04-19	13 minutes	Architect	Norwegian	M	50
6	Copenhagen - 4	04-04-19	12 minutes	Hotel manager	Portuguese	F	30
7	Copenhagen - 6	04-04-19	11 minutes	Master student	Argentinian	M	30
8	Copenhagen - 4	04-04-19	18 minutes	Filmmaker	Danish	F	30
9	Copenhagen - 4	04-04-19	18 minutes	Project manager	Lithuanian	F	20
10	Copenhagen - 4	06-04-19	21 minutes	Artist	Danish	M	40
11	Copenhagen - 4	06-04-19	12 minutes	Lecturer mathematics	Moroccan	M	40
12	Amsterdam - 1	09-04-19	16 minutes	Financing	Belgian	F	20
13	Amsterdam - 3	09-04-19	11 minutes	Project manager	American	F	50
14	Amsterdam - 2	09-04-19	14 minutes	Entrepreneur	Dutch	M	50
15	Amsterdam - 2	09-04-19	14 minutes	Financing	Dutch	F	50
16	Amsterdam - 2	12-04-19	22 minutes	Housekeeping	Italian	F	20
17	Amsterdam - 3	12-04-19	12 minutes	Bachelor student	French	F	20
18	Amsterdam - 1	15-04-19	17 minutes	Graphic designer	German	F	30
19	Amsterdam - 2	15-04-19	15 minutes	Hotel sales and marketing specialist	Pole	F	30
20	Amsterdam - 3	15-04-19	14 minutes	Master student	Dutch	F	20
21	Amsterdam - 2	18-04-19	16 minutes	Retired	Dutch	F	80
22	Amsterdam - 2	16-04-19	15 minutes	Travel agent	Dutch	F	30
23	Amsterdam - 3	18-04-19	27 minutes	Customer service	Pole	F	30

Appendix IV: Coded data

This appendix includes an overview of all the coded data from the 23 conducted interviews (shown in straight font) and 18 conducted observations (*shown in italics font*). To limit the length of this thesis, the transcripts and observation notes are not added to this document. Feel free to request an insight via dvanderpol7@gmail.com.

Object + risk perception positive (6-10 = very safe, no concern):

- R1Denmark/cam: I feel extremely safe (9 or 10).
- R1Denmark/cam: I am not concerned (1 or 2). I feel like other destinations have a higher chance for a terrorist attack for example in London, or Paris.
- R2Netherlands/semi-cam: Plekken die niet dit zulke objecten hebben, hebben een grotere kans op zo'n soort aanslag. Deze blokken vormen hier nu een barrière voor terroristen. Het is een goede oplossing voor veiligheid en ze geven mij een veilig gevoel (8).
- R3Denmark/semi-cam: In Nyhavn, I have never thought about it as a place with a concern for risk (0). Maybe other places yes, like Norreport.
- R3Denmark/semi-cam: I feel very safe here with the barriers (9).
- R4Slovakia/uncam: I feel very safe with the objects (9).
- R4Slovakia/uncam: I have a low concern for vehicle terrorism here (3). Not really often you hear about terrorism in Copenhagen.
- R5Norway/cam: It doesn't scare people or make them think if the place is safe. This doesn't give this feeling. Here it is giving a positive feeling. I am not scared that a vehicle terrorism attack will happen here. I am afraid it would happen in other places like London.
- R6Portugal/uncam: I feel very safe next to the barriers (8).
- R7Argentina/semi-cam: Yes, I feel very safe when sitting down on the barrier.
- R7Argentina/semi-cam: No, I have no concern for terrorism here.
- R8Lithuania/uncam: I think that countries that are more involved in different wars and stuff, they have a higher chance that something like this will happen.
- R10Denmar/cam: I feel a little bit safe (6) and try to not to think about it. The whole thing about terrorism is that you want to scare people. If I was afraid for terrorism, I also should be afraid of alcohol and cigarettes. I mean how many people die from terrorism on a yearly basis.
- R10Denmar/cam: The barriers give me a safe feeling, because they tell that the government know about the issues and that they are not waiting for another attack.
- R11Morocco/cam: They give me a safe feeling. It is nice that they put those preventing things now.
- R12Belgium/semi-cam: I have no concern that something can happen here (3). I think it is a good idea to put some barriers. I mean you don't want an attack to happen, but if something is going to happen, you better be prepared.
- R13United-States/cam: It looks safe here and I don't relate them in the first place with terrorism (9). I have no concern here (2). During busy events, you don't want to be here. Like Kings day or Independence day. It is scary.
- R16Italy/uncam: When I see the barriers, I am not afraid that something will happen here. You cannot go through them. They are safe in any case.
- R17France/cam: It makes me feel safe knowing cars cannot crash in on the crowd.
- R18Germany/semi-cam: I know the function of the objects and when I walk down the hallway no cars or anything can go through them, so behind the barriers I feel safe (8).
- R19Poland/uncam: I don't want to avoid this place. When I see the concrete barrier, I feel safe, but not for 100%, because the barriers protect only against the vehicle attacks and not against other threats (7).

- R19Poland/uncam: I feel safe in the Netherlands. Popular tourist destinations or events have a high chance for vehicle terrorism attacks. Especially countries with cultural, governmental, racial, migrant, and religious conflicts. Maybe Italy with all the migrants or the United States.
- R21Netherlands/uncam: Ja, ik voel mij veilig naast de blokken. Ik heb nooit de instelling gehad dat ik mij gek of bang laat maken. Ik heb niet het gevoel dat hier iets kan gebeuren. Ik denk dat er eerder bij manifestaties of popfestivals dingen kunnen gebeuren. Vooral bij drukke plekken waar veel mensen tegelijk zijn, waar je veel slachtoffers kan maken. Je kan ook denken aan overheidsgebouwen of banken.
- R22Netherlands/uncam: It is used to stop vehicles from driving into the buildings, but there are other ways someone can do terrorism. Somebody can shoot and then the blocks are not useful. I think it is more protected with those barriers (7). I won't be scared here.

Object + risk perception neutral (5):

- R1Denmark/cam: If somebody crazy suddenly gets the idea to do something than probably for that, for those two minutes, serves a purpose, but if you really plan ahead, then you can also plan around such constructions.
- R2Netherlands/semi-cam: Ik denk dat terroristen er juist rekening mee houden dat er een object geplaatst is en dat de kans op een voertuig aanslag hier dus kleiner is. Ik geef een 5 voor mijn angst dat hier iets zou kunnen gebeuren.
- R3Denmark/semi-cam: Even though they look ugly, you are sad they need to be put up, but then you realize, it might happen, and it is a good idea that they are here.
- R3Denmark/semi-cam: I don't know if they make me feel safer. You just need to accept the fact that it can happen here.
- R6Portugal/uncam: I have some concern that something can happen here (7). I mean it is possible that something is going to happen here in Copenhagen, but I also still feel safe.
- R8Lithuania/uncam: I am not scared to walk in a pedestrian street or at a very busy place and I am not afraid that there would be a terrorist attack here. I don't think they give me a feeling at all. To be honest, if they would be here, or not be here, I would exactly feel the same. It doesn't give me this feeling, like now I am on the other side of the barrier, and I feel very safe.
- R10Denmar/cam: The first time I shocked when I saw them. I got a bit afraid and realized that we got it too now. You get used to them after a while. They are there for a reason. Maybe it is good to take those easy prevention manners, but it is also a bit a false feeling of safety. It is complicated.
- R14Netherlands/uncam: Het helpt een beetje (5).
- R15Netherlands/uncam: Ik voel mij wel veilig hier, maar ook weer niet. Het blijft een grote stad en een drukke plek. Die blokken helpen misschien enigszins (5).
- R16Italy/uncam: I don't think I feel very safe or very unsafe. I sit there. I don't think about my safety.
- R17France/cam: It gives a safe feeling, but this keeps you constantly reminded of possible terrorist attacks. I think it stops the attacks. This gives me a safe feeling. However, on the other side, it also gives me an unsafe feeling, because they are here, and they are probably needed to protect us. It reminds me of the fact that we live in a world where those attacks happen and probably it can happen here as well. Otherwise they would not be here I think (5). I think there is a reason why the barrier was placed here. The police will have suspicions about an attack (5).
- R18Germany/semi-cam: It is super busy here at Dam square. It feels hectic and crowded. Like there is no structure and there are just a lot of people at the same place. I feel a little bit safe here (5-6).
- R19Poland/uncam: On one hand I feel safe, because they protect me against those attacks with cars or trucks, but on the other hand not, because they remind me that

terrorism is happening a lot. And also, other types of attacks can happen. I think you are never safe somewhere. I will always have a little bit a feeling of fear and concern that something can happen.

- R21Netherlands/uncam: Het maakt mij niets uit dat hier blokken staan. Ik zou mij ook veilig voelen als deze er niet zouden staan.
- R23Poland/cam: I think it is good that they are there, because in some situations, it will be helpful. I know it is a bigger risk when they are not there. Then a truck will hit people for sure. Now that they are there and a car will hit the barrier, the barrier will move, but also slow down the car. So, if the car will slow down, people have more time to react and escape. For sure, the barriers have a good cause and to some extent they will work the way they are intended for, but they don't make me feel much safer. I still know that a lot of things can happen.

Object + risk perception negative (0-4 = unsafe, afraid, concern):

- R1Denmark/cam: They are there to prevent something that you probably cannot really prevent anyway, so it is some sort of false security, I think. It symbolizes something. This place would be an obvious target. It is more a symbol than a real protection, I think.
- R1Denmark/cam: I don't think it is effective. If you are one of the really dangerous fundamentalists, then I think, it makes no difference. If you want to maybe delay something that is occurring more less instantly, than it probably helps a little bit. In my opinion, it generates a sense of false security. It is also a symbol. And what is the most important? The symbol is probably what they want to achieve. We are doing something. We are trying to attend the issue.
- R6Portugal/uncam: Now that I know that Copenhagen has them, I feel less secure here.
- R9Denmark/uncam: These barriers do not at all give me a safe feeling. Definitely not. If they really want to drive into someone, they will find a way.
- R10Denmar/cam: It doesn't give me a safe feeling anyway if I should be honest. I think it is just there to make a point. Like you shouldn't go in here with your car. I mean I would be outside of those. It stops the car from going there, but a car might go somewhere else. It helps a little bit, but also not. It is like when you see a policeman in the street, you feel safe, because he is there, but he also reminds you that crime is there. I understand they need it, but every time they come up with solutions, terrorists will also think about new ways to do something bad. It seems that we are not fixing the problem. It will not solve the vehicle terrorist attacks, but it will only solve the harm.
- R13United-States/cam: This one is not going to stop a truck. Maybe a car. I mean a terrorist is not going to come in a car, but something bigger.
- R15Netherlands/uncam: Ze geven mij een negatief gevoel. Het zijn maar rare dingen. Ik voel me niet superveilig hier. Misschien kan er wel iets gebeuren met zo'n vrachtwagen. Je weet het niet.
- R14Netherlands/uncam: Veilig voel je je natuurlijk nergens. Ze hoeven maar met een geweer te komen en die blokken doen daar helemaal niks tegen. Het is gewoon puur voor een vrachtwagen of een auto. Ik voel mij niet veiliger door die blokken.
- R14Netherlands/uncam: Ik schat de kans hoog in dat hier een terroristische aanval kan gebeuren met een voertuig (9). Ze pakken toch de grote steden. Daar krijgen ze de meeste aandacht.
- R15Netherlands/uncam: Ik denk dat er een hoge kans is hier (9). In mijn woonplaats ben ik niet bang, maar hier in Amsterdam wel.
- R18Germany/semi-cam: The barrier is just a measurement to prevent. I think when somebody wants to do harm to people, they will succeed anyway. Therefore, I don't think I have a concern when I am standing next to the barriers. It is a concern of all times.
- R19Poland/uncam: The barrier marks the place of potential attacks and it causes a sense of fear (5).

- R20Netherlands/cam: Het ligt eraan of de auto's hier gemakkelijk kunnen rijden. Je hebt natuurlijk allerlei tramsporen hier om het plein heen, maar als de auto's hier gewoon makkelijk kunnen rijden, dan schat ik de kans wel hoog in (6-7).
- R22Netherlands/uncam: You see it happening all over the world, all over Europe, so it can happen everywhere. Amsterdam is a big city in the Netherlands and when there is something like an event and there are a lot of people, I think you can easily do some terrorism over there. If there is no event, it is still a very busy square. I think there is a high risk that something can happen in Amsterdam in comparison with the eastern side of the Netherlands (7-8). If the barriers are not here, I would even have a higher concern.
- R22Netherlands/uncam: I have the feeling that Amsterdam is a high target in the Netherlands, but you also have to look to bigger events in the Netherlands. For example, in Nijmegen, you have the Nijmeegse Vierdaagse. That can also be a higher risk location.
- R23Poland/cam: Even though I am here and standing next to them, I don't feel very safe. I do know why they are there, and I do see them, but they still look pretty small. I am not an architect and I have no idea how they are constructed, in what kind of way, I am not sure what kind of attack or pushing they can hold. If I would be next to the barrier and see the car approaching fast, I would not feel safe. I see them, but I don't think they would help (1).
- R23Poland/cam: I am not sure if they are solid. Of course, I never want to see it in real action how it is going to fulfill its role.
- R23Poland/cam: It is a new topic and new subject. We still need to know what to adjust and we need to find the best way to those barriers well, so they would be working well. I think we need time to properly do it. I think as a temporary solution right now; I think it is not either a good thing or a bad thing. It is more a neutral thing.

Object + context perception positive (6-10):

- R1Denmark/cam: It looks if it was intended to be town furniture.
- R1Denmark/cam: Whether you should have one or not, is first debatable, but once you make the decision to put it in, then this is a really good way of doing it.
- R3Denmark/semi-cam: The barriers do not restrict my use of the sidewalks. You just should remember that when you walk sometimes, that you have to walk around it. You just have to get used to them.
- R3Denmark/semi-cam: When you are going somewhere, when you want to tie your shoelace, sit in the sun, put your bag on, or when you wait for someone, the objects are nice to use. It is a bit like a pit stop. I also could imagine that they are good for a workout. Their height is good and to jump on them might be nice.
- R5Norway/cam: I think it fits in the landscape. The barrier doesn't restrict my use of the sidewalks.
- R5Norway/cam: They thought about protecting the town hall and they did it with these huge stones, but you cannot use them. They are not functional. They are just there for protection. This one is smaller and better scaled. I like the whole idea that it is a bit secluded. You are in a busy street, Nyhavn, but yet you are on your own here if you want to be.
- R6Portugal/uncam: I was thinking maybe it is interesting to talk about this with the tourist guides. These kinds of details and showing the streets, I think it is really nice if they ask the tourists if they know why the objects are there and to make a kind of puzzle or quiz about it.
- R6Portugal/uncam: I don't have the feeling that they are in the way. There are no cars driving in that street, so that is not a problem and people can still go there. I also don't want to avoid this place.
- R6Portugal/uncam: The floor and the buildings are also grey. It is matching now.
- R7Argentina/semi-cam: No, I don't have the feeling that I want to avoid this place.

- R8Lithuania/uncam: You see all those trucks driving into Christmas markets, so I think it is kind of obvious that a lot of cities are trying to put up fences or these kinds of obstacles to prevent cars from driving in.
- R8Lithuania/uncam: I think I sometimes don't even notice these things.
- R11Morocco/cam: When I see them, I don't want to avoid this place.
- R12Belgium/semi-cam: I did sit on them on Dam square. On Dam square, I wanted to take a picture of the palace and I used one of the barriers to sit on them while taking the picture.
- R13United-States/cam: It more looks like furniture. It fits here.
- R13United-States/cam: No, I don't have the feeling that I want to avoid this place and it doesn't influence the way I walk around in this city.
- R14Netherlands/uncam: Nee, ze staan niet in de weg. Ik loop er wel langs.
- R16Italy/uncam: I don't want to avoid this place. I just go and sit.
- R17France/cam: I think when they camouflage it like this, it blends in very well in the environment.
- R19Poland/uncam: The barriers do not restrict or impede my use of sidewalks and they do not influence how I move around the city. I am not going to avoid a place when I see them. I just go where I want to go.
- R19Poland/uncam: I use them for sitting or standing to make pictures from the square for example. When I stand on top of them, I can look over the people and make nicer pictures.
- R20Netherlands/cam: Veel mensen willen denk ik wel zitten en met die objecten creëer je eigenlijk meer plek om te zitten.
- R20Netherlands/cam: Ja, het past eigenlijk heel erg in het moderne landschap. Het is nu een modern plein.
- R20Netherlands/cam: Ze staan mij niet in de weg. Ook omdat ik in eerste instantie niet wist dat ze eigenlijk hiervoor worden gebruikt. Dat deze dus eigenlijk een ander doel hebben.
- R21Netherlands/uncam: Het zijn fijne zitplekken. In de grote stad ben je altijd verplicht om ergens te gaan zitten om even bij te komen. Je moet altijd even ergens iets te drinken kopen bijvoorbeeld. Sommige mensen willen gewoon even zitten en om zich heen kijken en het op zich inlaten werken.
- R22Netherlands/uncam: I think it is a great way to show people that they can sit down if they like to. It is a busy square and there are a lot of old people or just people that want to sit down for a bit. I think it is a great opportunity to put them there. To provide people some facilities on the square.
- R21Netherlands/uncam: Het is een gezellig plein. De duiven zitten overal. De blokken zijn niet storend. Het is fijn dat je erop kan zitten. Het is ook heel erg fijn dat ze hier staan, want de fietsers kunnen het plein nu niet opkomen.
- R21Netherlands/uncam: Ze staan mij niet in de weg en ik heb niet het gevoel dat ik deze plek wil vermijden als ik de blokken zie.
- R22Netherlands/uncam: They are just there, and you don't really notice it. It looks like you can just sit on it. It fits in the environment of the square. It is not in my way.
- R23Poland/cam: I don't have the feeling that I want to avoid Rembrandt square, because I think it looks nice. With those barriers, they are creating a really nice atmosphere. I am trying to avoid Dam Square in general. I don't like to go there or go to the shops there. The barriers don't make a difference for me. I don't pay attention to them.
- *One guy sits down at the 3rd barrier. He takes a drink out of his backpack. After a few minutes, he is lying down on the barrier. I think he really enjoys the early morning sun.*
- *The five barriers look clean. There is no garbage on them.*

Object + context perception neutral (5):

- R2Netherlands/semi-cam: Ik heb soms het gevoel dat ze in de weg staan. Wanneer er een object staat, kies ik er automatisch voor om meer aan de zijkant van de straat te lopen. Voor mij is dit een logische stap. Wanneer je een object ziet, dan loop je daar niet tussendoor, maar neem je een andere route.
- R17France/cam: They are not really impeding my use of the square. Only when it is really crowded, they might be a bit annoying.
- R18Germany/semi-cam: I don't have the feeling that they are in my way, but I am not here in rush hour. I don't know how that's like. I can imagine people thinking that they are in the way when it is busy.
- R21Netherlands/uncam: Ik denk dat ze hier staan vanwege de aankleding van de ruimte. Ik heb niet het gevoel dat ze zijn neergezet voor de veiligheid. Dat komt niet bij mij op, maar bij deze dingen denk ik altijd, het is altijd achteraf dat ze iets doen. Het is iets wat ze niet hadden kunnen voorzien en dan worden er maatregelen genomen. De volgende keer komen ze daar niet meer, dan hebben ze wel iets anders bedacht. Dus ik denk wel, ja in hoeverre is het zinvol om die blokken daar nog te plaatsen?

Object + context perception negative (0-4):

- R1Denmark/cam: We have them blockading the road, so it is almost like checkpoint Charlie, so you need to crisscross with your car to go through and they put them up outside the football stadium, so it is very obvious why they are there. And at that location, it would be very obvious although they were in the skies. Even if you made them with a camouflage like this one, it would be very clear for what they are there for.
- R4Slovakia/uncam: When there are many people passing the barriers at the same moment, I have the feeling that they are impeding my way. Then I am extra careful that I won't trap over them.
- R4Slovakia/uncam: I don't think they fit in this surrounding. It is just a piece of concrete put here.
- R8Lithuania/uncam: It is a pedestrian street, so it feels like there should be nothing, so you can just walk through. These feel like an obstacle.
- R4Slovakia/uncam: I don't find them tempting to use as a bench. I prefer to walk a little bit further and to sit near the fountain where are more tourists and where it is better to relax.
- R8Lithuania/uncam: I think it is a weird place to sit. It is like where people walk. I would not sit here and chill. I also would never lie down here, because it is a pedestrian path and a very busy place to relax. It feels more like an obstacle.
- R9Denmark/uncam: It is a bit like bam, let's put this here to protect us, but I think they are getting more creative slowly.
- R9Denmark/uncam: There is the part in me that doesn't want to give the power to control the city landscape with these barriers. Let's try to be creative. How can we make it less visible? Not like, okay, let's protect us and we are building barriers. I don't like this at all. I think dialogues would be much more efficient. I think instead of being obsessed with building those barriers, there is much more that we can do in a political sense. There are much more conversations we need to have. Hard ones. I think this is all over Europe. This barricading ourselves, is not really the answer in any way. This is a very ridiculous and short-term solution.
- R10Denmar/cam: I don't have the feeling that I want to avoid this place when I see the barriers. They can be there.
- R12Belgium/semi-cam: Sometimes when it is very busy and people are watching their phones, people bump into the barriers. Then they are impeding the sidewalks. They block the entrance. It stops the flow of people going in and out. During rush hours it could annoy people.
- R17France/cam: I might want to avoid this place, because it might be risky. I think they don't place the barriers here without any reason.

- R20Netherlands/cam: Soms nemen de objecten ruimte in. Misschien als er een markt is, staan de objecten in de weg.
- R21Netherlands/uncam: Je kunt minder goed op de lego blokken zitten. Ik zou het mooi vinden als ze deze verven. Door het vocht worden ze lelijk, dus als ze het donkergrijs verven, vind ik het mooier.
- R22Netherlands/uncam: Sometimes I use them to put my bag on to grab something out of it or if I need to tie my shoelaces, but mostly to sit on them.
- R23Poland/cam: I have seen something similar at Dam Square, but it wasn't that nice as these ones. Also, they were not so nice in the landscape over there. They are very simple. They also have the purpose of a bench, so you can sit on it. For me, it looks like that they are just randomly put there, to make it safer and to give you a better feeling. I think it doesn't fit there at all. Maybe the government can put more pots with flowers there, with tulips. I think it will look nice for tourists, because it is Amsterdam and the Netherlands. I think this would be better than those barriers.
- R23Poland/cam: I think that municipalities are trying to react now and to make it temporary safe. In the back of my mind, I think they are working on a permanent solution. I think they just put there temporary and think and hope that they are working on something more stable and permanent. I think the situation won't change and we need those barriers there.
- *Some of the persons of the group are almost stumbling over the barriers. They look annoyed. I think the barriers are impeding their sidewalks.*
- *There is some litter around and under the barrier.*
- *One guy and his dog walk along the barrier, the dog pries against the corner of the barrier. More dogs might have done that, because the wood is a bit rotten and broken at that part of the barrier.*
- *There is some garbage on the second barrier. An empty coffee cup and some papers.*
- *Garbage lies down on the 2nd barrier. A plastic bag and an empty cup.*

Feelings other than risk related to barrier:

- R3Denmark/semi-cam: The first time I saw those barriers, I got sad. I heard about Nice, and the other places where it happened and then I realized that it can happen here as well.
- R10Denmar/cam: Normally I see them and walk by them. I don't get any feelings when I see them. I just get annoyed a bit. I know that they need to be there, but they also remind me that life sucks and people are sometimes terrible.
- R3Denmark/semi-cam: You have no doubt what they are. They look like roadblocks. In the beginning, when they were first put here, they annoyed me and made me feel sad. That's obvious though. When you walk through them, they give you a sad feeling. They were really ugly, and you realize that actually something can happen at this place too. You know why they are there. Changing the look and appearance of the barriers is quite nice. You still know why they are there, but it doesn't look sad anymore.
- R3Denmark/semi-cam: Even though they look ugly and I was sad to see them, they also made me realize that it is good that we have them in case something might happen.
- R8Lithuania/uncam: The barriers with the flowers give me a lively feeling. I don't think why are they here. I guess people who planned this, tried to fit them more in the environment.
- R18Germany/semi-cam: Camouflaging of the objects is more messing with my graphic design eye. If I like the design or not. Not really with my feeling of safety.
- R10Denmar/cam: I would rather see a camouflaged barrier than a normal concrete barrier. I prefer the hippy version. Just bright colors and flowers gives you a nice feeling.
- R9Denmark/uncam: The less visible, the better. I don't think it is nice when they are too visible.
- R12Belgium/semi-cam: It is nice to camouflage the barriers. Especially now when there are so many tourists and visitors here in the Netherlands for the flower season that just

started. I am sure that is the reason that they put the tulips there. To remind the tourists about a certain aspect that the Netherlands offers.

- R12Belgium/semi-cam: I think design and functionality are both very important and if you can have a combination of them, then it would be perfect. Even you can make something that looks nice, but you cannot sit on it, people will get most likely annoyed with it, whereas it has another function, like you can sit on it, and it looks nice, then it is a good barrier.

Function of barrier in context:

- R3Denmark/semi-cam: Maybe we could involve restaurants to grow herbs in it. Why not make them useful? Educate people about the flowers that are inside with some signs. Then you can make a combination of everything.
- *A guy is talking on the telephone. His girlfriend is sitting on the 5th barrier and waits until he is finished. When he finishes the talk, she stands up, and they walk away together.*
- *Three more persons are sitting down on the barrier and for one person is no more space and she sits down at the floor next to the barrier. In total, six persons are sitting on the barrier's bench and one on the floor.*
- *Two men and one woman are sitting down on the 1st barrier. One man stands up and falls. He looks drunk. The 2nd man helps him to stand up and they sit down again. I believe they are drinking beer too.*
- *Two persons sit on the barrier and one leans against the barrier, a fourth person takes a photo of them on the barrier.*
- *On the 4th barrier sit two women. They are looking around and maybe wait for somebody. Garbage lies down on the 2nd barrier. A plastic bag and an empty cup. Somebody arrives and lays down on the 2nd barrier. The persons on the 1st barrier is singing aloud. Now I am sure they are drunk. I think this is the place to be for homeless and drunk people, as I saw other homeless persons sleeping against the barriers earlier this day.*
- *A mother and a child sit down at the 3rd barrier. They organize something in their bags and leave.*
- *One kid climbs on the barrier to play with a binocular. After playing, he jumps down, and runs away.*
- *Some persons are lying down against the 2nd barrier. Time to sleep.*
- *Construction work has started very close to the barriers. The construction workers use the first two barriers to put gear on.*
- *One guy sits down at the 3rd barrier. He takes a drink out of his backpack. After a few minutes, he is lying down on the barrier. I think he really enjoys the early morning sun.*
- *One Asian teenager climbs on the barrier and a friend takes a photo of her. Three other teenagers try to climb on the barrier. They have a hard time to climb on it and decide to just stand next to the barrier for the photo. Two other persons take a photo of the barrier.*
- *A father and son walk towards Nyhavn. The son jumps on the 3rd barrier and dances on it. After this, he jumps down, and they continue their way.*
- *Another family walks by. The two little girls climb on the 3rd barrier and put their arms proudly in the sky. After this, they jump down and walk further.*
- *Two more persons sit down on the 4th barrier. They take a snack out of their backpacks and start eating. They leave after a few minutes.*
- *Two persons take a selfie with the barrier.*
- *A woman sits down on the 3^d barrier. She puts her bags on the barrier and is talking on the phone. In the meantime, a man sits down on the 4th barrier. His girlfriend takes a photo of him while he is sitting on the barrier.*
- *The homeless persons are still sitting on the 3rd barrier. They have some drinks standing on the barrier in between them. In this perspective, the barrier functions as bench, as well as, a little table.*

- One girl sits down on the 1st barrier. She takes a bottle with soda out of her bag and starts to drink.
- Three kids climb on the barrier. Parents take photos of them on the barrier.
- A couple sits down on this barrier. They are holding a little travel guide of Copenhagen and are looking to a map. They might be looking for directions and use the barrier as a point of navigation.
- One family walk by and put one of their children on the barrier. The mother takes a photo of the child on the barrier. After the photo, they continue their way.
- One woman places her foot on a barrier to tie her shoelaces. When she is done, she walks away.
- One woman puts her bag on the barrier to take something out of it. Then she leaves.
- The lady is taking a photo of the tulips on the barrier.
- One woman puts her bag on the barrier to take something out of it. Then she leaves.
- Somebody sits down at the 2nd barrier. I think he is waiting for somebody. He is looking on his watch. After about two minutes, a lady walks towards the man at the 2nd barrier, they hug, and leave together.
- A group of 20 persons gather next to the barriers. Two of them put their bags on a barrier, while they are standing and waiting next to it.
- At the 1st barrier somebody arrives with a bicycle. She parks the bicycle against the barrier, locks it, and walks away.
- one guy puts his bag on the 1st barrier and takes something out of the bag. Then he walks away.
- A group of seven people take a photo with the barriers, all ladies.
- One woman puts her bag on the barrier and takes something out of it.
- A couple sits down on the 1st barrier and is looking outside
- Two persons arrive at the 2nd barrier. They do not sit down, but place their coffee cups on the barrier, so their hands are free, and they can take their phones to take a picture of the palace. As soon as they take the photo, they leave.
- One person stands next to the 1st barrier while watching on a map. He is not sitting down. I think he founds the way, because he leaves the square.
- One man stands on the Lego barrier. He looks clumsy as he finds it hard to find good balance on this piece of concrete. He is making photos of the square, so he is using the object to get a better position for the photo.
- At the 3rd barrier, a woman leans with her foot on the barrier and is eating a hotdog.
- Five new people sit down at the 1st and 2nd barrier. One of the five persons lays down on the barrier. The others remain seated.
- One lady is putting her foot on the barrier and starts cleaning her shoe.
- The guy on the 2nd barrier who was smoking a cigarette, now takes a selfie while sitting on the barrier.
- There are five people sitting on the 1st barrier and 4 people on the 2nd barrier. The persons on the 2nd barrier is using the barrier as a table. They sit on the corners and have food in the middle. Two people are leaving the 1st barrier. On the 3rd barrier are seven people seated. One of them is taking photos, two are eating, one is taking something out of his jacket and has his cup of coffee placed on the barrier, and the other three are talking with each other.
- Two persons sit down at the 1st barrier.
- One of the women stands on the barrier, so a man can take a photo of her.
- Another young man stands on the 3rd barrier and takes a photo of the square.
- The three people that sit on the 1st barrier is using their telephone to make photos of what is happening on the Dam Square. Maybe they try to capture the guy who is dressed like Mickey Mouse or one of the other street artists.
- All seven people that are now seated on the 2nd and 3rd barrier eat something, drink something, or are talking with each other.
- On the 2nd barrier, a woman waves at two other ladies and joins them. They leave together.

- *The pigeon walks slowly on the barrier, looking for food leftovers.*
- *The two women on the 3rd barrier finished their Starbucks drink and are looking on a map now. Later one of them is polishing her nails.*
- *On the 1st barrier, two people are seated and eat something. They are feeding the pigeons in the meantime. One pigeon walks on the barrier and is looking for food. A bicycle is parked against the 2nd barrier.*
- *On the 3rd barrier a couple is standing, and they take a photo of the square.*
- *The couple leaves the first barrier and 7 young girls climb on it to take a selfie. The 7 girls are still posing on the first barrier for photos.*
- *On the 2nd barrier, a woman uses the object to take a photo. She asks somebody else to take a photo while she is standing on it. When a photo is taken, they switch places, and the couple is standing on the barriers for a photo.*
- *One woman sits down, and another man takes a photo of her.*
- *Somebody is standing on a barrier to have a better overview of the square.*
- *She jumps around on the barrier and plays with the flowers that are lying on the barrier that have been fallen out of the tree.*
- *The observation ends. There are still seven persons sitting down on the 1st barrier, five on the 2nd barrier, and seven on the 3rd barrier.*

Object + visual properties of object positive (6-10):

- R1Denmark/cam: It is built so the children can use it and adults as well. Turning it into a bench is a good idea and probably not an expensive solution.
- R2Netherlands/semi-cam: Wanneer het mogelijk is, ga ik er wel even op zitten. Sommige objecten zien er ook bijzonder uit. Dan blijf ik er weleens stil bij staan en kijk ik ernaar.
- R3Denmark/semi-cam: I have seen those big black concrete flower pots, so it is not a ball or big block, but more a decoration, which I think looks nice. Especially, in the area around Norreport, are many of those flowerpots. In summer and spring, this looks really cool.
- R3Denmark/semi-cam: Wood is more romantic, and it looks nicer. The wood is a bit sailor ship thing.
- R5Norway/cam: I think the shape is practical. The back is very high and that is useful to rest. I feel it is comfortable. It has a function of covering the concrete.
- R5Norway/cam: I like camouflaged barriers better. With this camouflaged barrier, I like the shape. It is useful. It is not just the ugly concrete. It is useful and functional. You can elaborate and design even more. Maybe make a roof on it from Plexiglas.
- R5Norway/cam: I like this object. I like it because I can sit here and enjoy the chair and the sun.
- R6Portugal/uncam: I think it is nice, because I always thought it is a bench. Many times, I grab a burger or fries and just sit in front of Burger King on them. Sometimes when I go shopping and I have many bags, I put the bags there, and sit. It feels like a bench.
- R7Argentina/semi-cam: Yes, it looks simply, but the principal function is to avoid the vehicle terrorism. I think it is good. My first impression is that people can sit down.
- R10Denmar/cam: I think it is a good idea with the plants. It makes it a bit more peace fuller. Less aggressive.
- R10Denmar/cam: I normally sit on them. I think it is a really good idea to give them an extra purpose. You can put those buttons on it, where people can click on, and then the barrier tells something about the surrounding. Then you can learn from it.
- R13United-States/cam: I like those because you can sit on them.
- R14Netherlands/uncam: Een betonblok is koud en een houten plank is niet zo koud. Hout geeft warmte.
- R18Germany/semi-cam: One day there were tulips on them and that's awesome. They are more fun now. Before they were just boring pieces, but with the tulips on top, they

look better. It looks happy and I like that people are engaging. Taking pictures. Those just look really spring time.

- R19Poland/uncam: The shape is okay, because it can be used for sitting. It is nice when you want to have a break.
- R22Netherlands/uncam: I like the ones with the wood on top. The wood is comfortable for sitting.

Object + visual properties of object neutral (5):

- R12Belgium/semi-cam: They are ordinary. They are exactly what I expect from the Netherlands, they have tulips in them. It is stereotyped, but it just a black square.
- R13United-States/cam: When there are more of them you probably think about the reason why they are here, but at the same time I think I still would not relate them to terrorism.
- R17France/cam: I think the barriers look modern; it is nice that people can sit on it. The color is a bit boring, but that is okay. Maybe a natural color like green or brown would have been better.
- R17France/cam: It looks like you can easily move the barriers on Dam Square. More easily than the ones over here at Rembrandt Square.
- R18Germany/semi-cam: They have neutral colors. Just grey. Dark grey. Kind of boring. Grey makes it looks kind of dirty.
- R20Netherlands/cam: Het lijkt op een plantenbak met die bomen in het midden. Misschien zou het mooi zijn als ze van hout zouden zijn. Dat maakt het natuurlijker. Alhoewel beton natuurlijk ook mooi is. Hierdoor lijkt het heel strak en modern.
- R21Netherlands/uncam: Nu in het voorjaar met die voorjaarsbloemen lijkt dat mij erg leuk. Maar wordt het wel goed verzorgd? Onverzorgd vind ik veel erger dan als dat er alleen maar gewoon blokken staan met houten planken erop waar je wel op kan zitten. Als het onverzorgd is, dan vind ik deze blokken veel mooier. Op de dam zullen ze misschien ook veel rotzooi neergooien. Kijk bijvoorbeeld naar al dat plastic hier, plastic bekertjes en zakjes, wie gaat die rommel opruimen bij de blokken of tussen de plantjes op de blokken? Dat is het probleem. Je kan het wel allemaal mooi maken, maar blijft het ook mooi?
- R22Netherlands/uncam: It is just grey. It doesn't really have something attractive. I think if you go into blue colors, it will be more colorful, and it will do something with the atmosphere on the square.

Object + visual properties of object negative (0-4):

- R1Denmark/cam: If they suddenly put up 7000 of them, I would have an opinion. Having one, at this location, is not an issue.
- R3Denmark/semi-cam: On the sides, it could maybe have more texture or livelier. Now it is just a simple square.
- R3Denmark/semi-cam: It is not something you sit on for longer, they are quite hard.
- R3Denmark/semi-cam: Nyhavn is old, but also has a lot of colors. Maybe the barriers could have been made like that, so they reflect that, and are part of their surroundings. Now it is just dumped there, and it looks off. I think they could have been better.
- R4Slovakia/uncam: Usually the colors are grey. Not eye catching. It is ugly. The shape is also really basic and nothing special.
- R4Slovakia/uncam: The barriers look like a bench. An ugly and not comfortable bench.
- R10Denmar/cam: They look very black. They look like steel. I think they are too aggressive. It is a little bit over the top.
- R15Netherlands/uncam: Ik vind het niks. Mijn eerste indruk is dat het net kisten zijn waar mensen in begraven worden.
- R16Italy/uncam: I don't like the grey color. I like red, blue, or green. Real colors. Now it doesn't have life. It is dead. They don't look nice, because of the color. It is like a little bit broken. It is just there to do it's duty.

- R16Italy/uncam: If they are for sitting, the shape is bad. There are bumps on top of it. It is not nice.
- R17France/cam: I don't like the barriers at Dam square. They look ugly. At Dam Square, they are too rough for the landscape. It does not fit the square.
- R18Germany/semi-cam: About the shape of the barriers, I don't think a lot, I guess. I think they are boring and ugly to be honest.
- R18Germany/semi-cam: I would like to see more camouflaged barriers with tulips, but I hope that the tourists won't destroy the tulips or take them home.
- R19Poland/uncam: The visual shape of the concrete barrier is quite okay when you look at it from a distance. At close range, they look a little bit dirty. I think that the visual perception is not so nice and consistent.
- R19Poland/uncam: I don't like the shape of the barrier without the wood, the one with the bumps, because is not useful. You cannot sit on it. The ones with the wood look nicer. I think that they are part of the square. I did not identify them as barriers. If they were all like that one with the bumps, it would look uglier.
- R21Netherlands/uncam: Ik vind dat je het eigenlijk moet verven, zodat het beter houdbaar is en daardoor er langer mooi uitziet.
- R22Netherlands/uncam: The Lego square is not comfortable to sit on. With the wooden top on it, it is better.

Visual properties of object perception + risk perception:

- R1Denmark/cam: I think it is a good idea to camouflage the barriers in the sense that if you are busy thinking of something else, you probably won't notice the purpose of this object.
- R1Denmark/cam: There is no difference to me in feelings of safety when looking to camouflaged barriers or uncamouflaged barriers. None of them make me feel safe.
- R2Netherlands/semi-cam: De camouflage heeft geen invloed op mijn gevoel van veiligheid. Het object zelf geeft mij al wel een veilig gevoel. Het geeft aan dat erover na is gedacht om een weg of straat zo veilig mogelijk te maken.
- R2Netherlands/semi-cam: Hoe meer objecten, hoe beter, want er gebeuren nog te veel nare dingen op straat. Door een object te plaatsen zijn deze minder makkelijk uit te voeren.
- R3Denmark/semi-cam: When you look at camouflaged barriers, you know why they are there, but when you see them, it is nice to look at them and you don't think about the real purpose.
- R3Denmark/semi-cam: The way a barrier looks like, doesn't influence my feelings.
- R3Denmark/semi-cam: The first obvious, boring, concrete barriers, scare people and remind people of the bad things that can happen to you, you don't want to do that. In our history, we had those things in the middle of the square to hang people, but also to scare people and remind people of the bad things that can happen to you, you don't want to do that. They barriers remind you and let you think about it. You look around you, when you see them. You are going to think about the trucks that might go past them. It is good to be aware, but you shouldn't be reminded. It is sad to have a city image where things scare you all the time. Just make it look nice. People know it is there, you don't need to remind them.
- R4Slovakia/uncam: I think camouflaging a barrier is a good idea, because then people don't feel threatened, and they don't think about the reason the barrier is there. They will feel less afraid that something might happen. It will look more like part of the city.
- R4Slovakia/uncam: I don't think camouflaging makes a difference for me. As long as I see that something is surrounded by barriers, I feel safe at that particular place.
- R4Slovakia/uncam: The barriers don't look good. People can trip over them, if they are not careful. It can be dangerous.

- R5Norway/cam: When we talk about the town hall and the big concrete granite round things, they signal that they don't want cars over there. It means like back off. It is too repetitive. There are too many.
- R5Norway/cam: I think here the children just see the climbing things and others just the nice design. This is how it should be and at the same time it is protection. I think this one is very well done.
- R5Norway/cam: I think this is not safe, because it is wood, but I know there is also concrete under it and that does make me feel safe. I think here it is not so much for protection, but more to rest. This one, does not really give a high protection. When you talk about practical, functional, and good-looking devices, then this one is very good.
- R5Norway/cam: The ones on the end of Nyhavn, they make me feel safe, because you see the concrete. You can also design concrete, where you can make a seating. You can make something from concrete exactly like this one. Maybe just put some wood in the middle, but not too much.
- R5Norway/cam: Covering something like this, it fits here, but I don't know if it is the right thing to do. When I look at this, I don't feel safe. It is wood. A car will probably destroy this. I won't feel safe. The material is very important. If it would be concrete, I would feel safer. Then it is really protecting.
- R6Portugal/uncam: I think camouflaging is nice, because then you don't think about it and it doesn't create any bad feelings. You don't think it is for terrorism. It is nice and beautiful.
- R6Portugal/uncam: They are heavy. It will avoid what we have heard about, the terrorist attacks with the trucks.
- R6Portugal/uncam: I would not feel safer if they are camouflaged, because I don't feel unsafe now when they are grey. I think it just gives an extra use to the things. That's it. Danish people are very good in doing that.
- R7Argentina/semi-cam: When they have a different color, my feeling of safety won't change. When they are bigger, I would feel more safe.
- R8Lithuania/uncam: If these things are visible as a protection thing, rather than part of the city, like a flower bed or a bench, then it becomes more visible that you need to be protected and then the people who are already paranoid, they might experience fear for a terrorist attack. They will feel even more afraid. Exactly they will think why they are here. They will feel that there is a chance that people may drive in with a truck. I feel if the barriers become sculptures or flower pots, then it becomes something less scary and, in that sense, it also provokes less scary feeling.
- R8Lithuania/uncam: When you build it in a way that it stops the car, then it serves the purpose of it being a stop, but then it also doesn't provoke bad feelings for people who are slightly paranoid about terrorist attacks.
- R10Denmar/cam: You should go one direction. Either you choose and you go full hippy with just bright colors and flowers, or just show the truth, just concrete and maybe even put a tree on it, so it looks more humane. Without the tree, it is just brutalist architecture. I could be afraid of that. It is frightening. It is nice to hold it down. There is something nice about fighting these terrorist things with strange looking and colorful things.
- R10Denmar/cam: The whole idea of people giving them colors and flowers is nice, because it gives a safe feeling that someone exactly cared. If you just put the concrete blocks or the black steel concrete blocks, it is like you don't care anymore.
- R11Morocco/cam: More barriers is more safety.
- R13United-States/cam: Camouflaging doesn't make me feel safer. If a truck wants to come up here, it can. If a truck really wants to come over them, it is possible. That's not going to stop them. They just look nicer.
- R15Netherlands/uncam: Als de blokken kleiner en vierkanter zouden zijn, zouden ze mij een beter gevoel geven.
- R14Netherlands/uncam: Nee, met of zonder hout, ik voel mij niet bepaald veiliger.
- R16Italy/uncam: About safety, in any case you cannot go through them. They are safe in any case. The color doesn't change my feeling of safety, only of looking.

- R19Poland/uncam: I think camouflaging is a good idea. You are safe and the concrete barriers protect you and you even don't realize that this is against vehicle attacks. However, the camouflaging of the barrier doesn't influence my feelings of safety in the square. If it's camouflaged and I'm not aware of it then my feelings of safety cannot increase.
- R19Poland/uncam: It's heavy and big and can stop the vehicle.
- R21Netherlands/uncam: Hoe het eruit ziet heeft absoluut niks met mijn gevoel van veiligheid te maken.
- R22Netherlands/uncam: It is not important to me how the barrier looks. If it useful, it is good.
- R23Poland/cam: The barriers are benches, so of course people would be sitting there. When a lot of people sit there, especially with their back to the street, they also might not see that somebody is coming with a car. The car can hit the benches, where many people sit, especially older people. They just sit there, because they are tired, and I am not sure if they have the time to escape.
- R23Poland/cam: The ones on Rembrandt square look fragile. I am sure they will work at some point, but still they look very fragile. I don't know what kind of materials are used and how they were constructed, but just by my observation without any architectural knowledge, on Dam square, the concrete ones, looks more solid.
- R23Poland/cam: They do not look nice. Especially the ones that are put just because they want it to look safer. If somebody would organize the place, decorate, or renovate the whole place, then you can think about a nice way to put them in the surroundings, so they actually fit, look nice, and don't draw too much attention. If they are just a temporary solution to put there quickly and limit the damage, it doesn't look good. Also, if they are not well constructed, they can also harm people.

Visual properties of object perception + context perception:

- R1Denmark/cam: Color and material are well chosen, because it is just next to the waterfront.
- R2Netherlands/semi-cam: Het zou wel mooi zijn als ze er een beetje anders uit zien. Nu is de camouflage subtiel aangebracht, maar vallen ze alsnog erg op in het landschap.
- R2Netherlands/semi-cam: Wanneer een object iets toevoegt aan het straatbeeld, dan vind ik een gepaste camouflage juist wel mooi. Het kan een plek juist een extra leuke aanblik geven.
- R3Denmark/semi-cam: I think it could have a little texture, so it would better blend in, so it doesn't look like it is just dumped there. Considering that you are close to the ocean here, maybe at the sides you could have more naturally texture, like bumps and colors, so it has more a look of a rock, and then on top of it flat.
- R3Denmark/semi-cam: Everybody knows why the barriers are here and it is not something we want to forget. We need them here, so why not make it something nice. I don't want it to look like Germany, in the second world war, where everywhere are concrete blocks and walls and everything. Now it is important that they build them good in the city picture. Combine them with nature. Go back to the hippie days and bring back some flowers. I think it is a positive signal. We need this, but in a nice way. It is not something we need to disguise.
- R4Slovakia/uncam: I think it would be interesting if there would be some patterns or drawings on the barriers. Use them as a part of the city decoration.
- R5Norway/cam: Here it is very good, because you can sit on it and enjoy the view and the water. There are birds here and seagulls. It is nice to enjoy the sun. This barrier might not be useful in a busy shopping street here in Copenhagen.
- R5Norway/cam: At the main street, I like that they put concrete barriers. I think it signals that people should see the barriers. If they put this one over there, imagine how many

homeless people would sit on it. It won't work that good as here probably. Concrete has its function, but only at its own place. It is important to consider how design is put into action. This one probably won't work over there.

- R6Portugal/uncam: They are always grey or brown. Maybe that is for a reason, so people don't notice them. Maybe tourist don't think about them. Maybe if it is for example yellow, you will notice them more. If they are colorful, it would be a nice way to decorate the city. Then it would also be like an attraction for tourists. It can for example have paintings on it.
- R8Lithuania/uncam: Well it looks like a big stone. I don't know. It looks like it is placed in a weird place. It is a bench to sit on or to lie down, but in a weird place.
- R8Lithuania/uncam: Now they don't give me a feeling that they annoy me or distract me. This part of the city is so busy, so you can easily become distracted by people, signs, or commercials. Their color is not so visible in comparison with the other shinny and blinking things around.
- R8Lithuania/uncam: I think in general that they should not be here. They just feel like an obstacle to go around. I don't think it would change if they are colorful. I think they would be more distracting in a way. Then for sure you will notice them, so I guess it depends on the purpose of them. Should you notice them yes or no?
- R10Denmar/cam: With a sand-yellow color, you hardly notice that it is a barrier. On the other hand, I understand that maybe with a black color you want to make a point. That you need to see them and that if you are a guy with a car, you shouldn't drive into it.
- R10Denmar/cam: I have seen them in a round version next to the parliament building. They look nice. The fit in with the rest of the architecture. If they need to be there, it is nice that they fit in the landscape. First, it was just blocks. They changed it. It remained concrete, but they are better shaped now. They are not camouflaged, but at least they took the time now to make it look nicer. The objects easily get to look like something from the war.
- R12Belgium/semi-cam: I prefer the camouflaged barriers at central station more than the uncamouflaged ones at Dam Square. The interior of the central station is black mainly, so I think the camouflaged ones fit better there. On Dam square the barriers are boring.
- R13United-States/cam: I like the colors and that you can sit on them. For their purpose, they look nice. They don't look so ugly as the other concrete ones.
- R14Netherlands/uncam: Ja, ik vind het goed bedacht. Het is ook erg slim dat ze planken op de blokken hebben geplaatst. Nu heb ik toch meer het beeld dat het een bankje is. En heb ik niet het gevoel dat het per se voor terrorisme is.
- R14Netherlands/uncam: Dit blok ziet er neutraal uit. Het is vierkant en rechthoekig. Het valt niet op. Er zijn veel toeristen. Dus de blokken zelf vallen hier eigenlijk sowieso al niet op. Er zijn zitplaatsen genoeg nu.
- R16Italy/uncam: I like the ones with wood on top better, because you sit better. Even tough when there is no wood, but when they are just flat, you can sit better.
- R17France/cam: I like to see camouflaged and shaped barriers, such as in the form of a bench, so that it blends into the environment.
- R18Germany/semi-cam: The floor is the same material. I think the whole space is cold looking. It fits the atmosphere.
- R18Germany/semi-cam: I think a lot of people rest on them. Which is nice, because it is busy at the station.
- R19Poland/uncam: I think the color of the concrete barrier is fine, because it's quite similar as its surroundings. It fits in this landscape.
- R20Netherlands/cam: It is very neutral; it is just gray dark. It looks okay when you look to the other buildings. They do not have much color, so it just fits well.
- R21Netherlands/uncam: De kleur van de blokken is prima. De blokken passen nu goed in de omgeving bij het paleis. De vorm past bij het gebouw. Dat is ook allemaal heel vierkant.

- R22Netherlands/uncam: The camouflaging is very nice. You don't see that it are barriers. It just looks like facilities where people can sit down.
- R23Poland/cam: The color of the barriers is neutral. The barriers are not drawing much attention. I see that they are there, but they do not disturb my eyes. It goes good with the surrounding.
- R23Poland/cam: They are big, and the shape gives tourists a lot space to go there and to chill and sit. I like the fact that this is not useless. This has a function.
- *Nobody sits down on one of the barriers. Maybe because they look so dirty.*

Context perception + risk perception:

- R1Denmark/cam: Let's say when you have 20 of those, it would be more obvious for the unknown viewer that this serves not only as a piece of furniture, but also serves for a different purpose. Right now, you could probably mistake it for a bench.
- R1Denmark/cam: It symbolizes something. This place would be an obvious target.
- R2Netherlands/semi-cam: Ik heb een veilig gevoel nu ik hier op de haven loop. Het herinnert mij eraan dat er na is gedacht over de veiligheid van deze straat en daarmee ook aan de veiligheid van de mensen is gedacht.
- R3Denmark/semi-cam: I don't want to avoid this place with the barriers. When you think about it, this may be the safest place to be.
- R3Denmark/semi-cam: I think other places have a higher chance for a vehicle terrorist attack, busy places in Copenhagen like Nørreport station.
- R4Slovakia/uncam: I kind of want to avoid this place with the barriers, because something might happen here.
- R4Slovakia/uncam: I believe that other destinations have a higher chance for vehicle terrorism, because you hear about it in the media and about Copenhagen you hear nothing. I usually only hear positive things about Copenhagen, about the environment and happy people.
- R5Norway/cam: No, I don't feel afraid or scared. There is nothing here that reminds me of terrorism. You will maybe get it unconsciously.
- R6Portugal/uncam: Copenhagen would be a good target for a vehicle terrorist attack. It is very international here. You could reach a lot of media and nationalities.
- R7Argentina/semi-cam: Maybe Paris, France or the USA or London have a higher chance for a vehicle terrorism attack, but here no, I don't think so.
- R12Belgium/semi-cam: There are many barriers and they block the entire entrance. There is no way to go around. This gives me safe feeling (7.5).
- R12Belgium/semi-cam: I think if I must choose for safety, I prefer the ones on Dam square, the uncamouflaged ones, because they look much stronger and more solid. If there would be attack, it looks like those on Dam square would stop the car.
- R16Italy/uncam: You probably will not sit on the barrier on the side with the street, but on the side of the square, but then you will not see when a car comes. It is dangerous.
- R17France/cam: Now it gives a safe feeling, but I don't think it would be better if there are more of them, because it does not make the street more attractive.
- R18Germany/semi-cam: I don't want to avoid this place. It is more like, when you come here, you need to be here. Like you need to catch the train, or you have an appointment with somebody. I don't think I would disengage with the train, just because the barriers are here. I think the barriers do make me feel safer. Just knowing that there are measurements taken to prevent something.
- R19Poland/uncam: My feelings of safety will change if there would be more of the objects over here. I would feel a bit more afraid and safer in the same time.
- R22Netherlands/uncam: I just see them as a sitting area. I know it is avoiding terrorism and vehicles, but it doesn't let me think about terrorism all the time when I am there.
- R23Poland/cam: They are small because they cannot take over the entire landscape, but if the car goes fast enough and is big enough, I think they could be moved. If such a big object could be moved or pushed, I think it can also harm people.

- R23Poland/cam: They could make some benches in the middle maybe, where they are surrounded with the flower pots, but benches, no, better not.

Appendix V: Photos of observations

To get a better idea of the functioning and social uses of the concrete barriers at the time of investigation, some observation notes with accompanying photos (all photos are my own) of these observations are presented in this appendix.



Figure 27: Observation photo Denmark number 1.

Accompanying observation text with figure 27: On the 4th barrier **sit two women**. They are looking around and **maybe wait for somebody**. **Garbage** lies down on the 2nd barrier. A plastic bag and an empty cup. Somebody arrives and **lays down** on the 2nd barrier. The persons on the 1st barrier are singing out loud. Now I am sure they are drunk. I think this is the place to be for homeless and drunk people, as I saw other homeless persons **sleeping against the barriers** earlier this day.



Figure 28: Observation photo Denmark number 2.

Accompanying observation text with figure 28: Some persons are **lying down** against the 2nd barrier. Time to sleep.



Figure 29: Observation photo Denmark number 3.

Accompanying observation text with figure 29: Construction work has started next to the barriers. The construction workers use the first two barriers **to put gear on**.



Figure 30: Observation photo Denmark number 4.

Accompanying observation text with figure 30: Three kids **climb** on the barrier. Parents **take photos** of them on the barrier.



Figure 31: Observation photo Denmark number 5.

Accompanying observation text with figure 31: Two persons **take a selfie with the barrier**.



Figure 32: Observation photo Denmark number 6.

Accompanying observation text with figure 32: One kid **climbs** on the barrier to **play** with a binocular. After playing, he **jumps down**, and runs away.



Figure 33: Observation photo Denmark number 7.

Accompanying observation text with figure 33: One kid **climbs** on the barrier to **play** with a binocular. After playing, he **jumps down**, and runs away.



Figure 34: Observation photo Denmark number 8.

Accompanying observation text with figure 34: Two persons **sit on the barrier** and **one leans against the barrier**, a fourth person **takes a photo of them on the barrier**.



Figure 35: Observation photo Denmark number 9.

Accompanying observation text with figure 35: One guy sits down at the 3rd barrier. He takes a drink out of his backpack. After a few minutes, he is **lying down** on the barrier.



Figure 36: Observation photo Denmark number 10.

Accompanying observation text with figure 36: A guy is talking on his phone. His girlfriend is **sitting** on the 5th barrier and **waits** until he is finished. When he finishes the talk, she stands up, and they walk away together.



Figure 37: Observation photo Denmark number 11.

Accompanying observation text with figure 37: A woman **sits down** on the 3^d barrier. She **puts her bags on the barrier** and is talking on the phone. In the meantime, a man **sits down** on the 4th barrier. His girlfriend **takes a photo** of him while he is sitting on the barrier.



Figure 38: Observation photo Denmark number 12.

Accompanying observation text with figure 38: One girl **sits down** on the 1st barrier. She takes a bottle with soda out of her bag and starts to drink.



Figure 39: Observation photo The Netherlands number 1.

Accompanying observation text with figure 39: One woman **places her foot on a barrier to tie her shoelaces**. When she is done, she walks away.



Figure 40: Observation photo The Netherlands number 2.

Accompanying observation text with figure 40: A couple **sits down** on the 1st barrier and is looking outside.

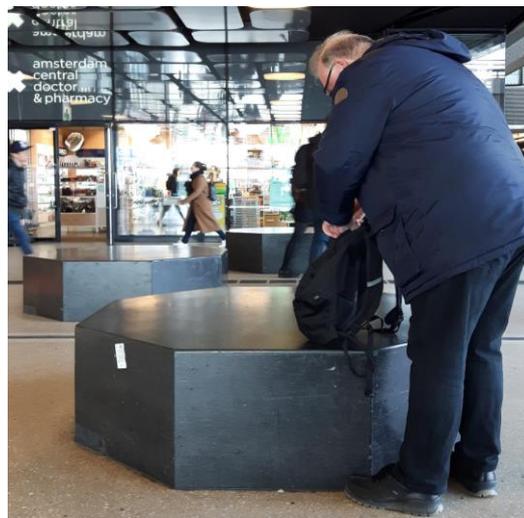


Figure 41: Observation photo The Netherlands number 3.

Accompanying observation text with figure 41: **One guy puts his bag on the 1st barrier** and takes something out of the bag. Then he walks away.



Figure 42: Observation photo The Netherlands number 4.

Accompanying observation text with figure 42: One woman **puts her bag on the barrier** and takes something out of it.



Figure 43: Observation photo The Netherlands number 5.

Accompanying observation text with figure 43: **A group of seven people take a photo with the barriers, all ladies.**

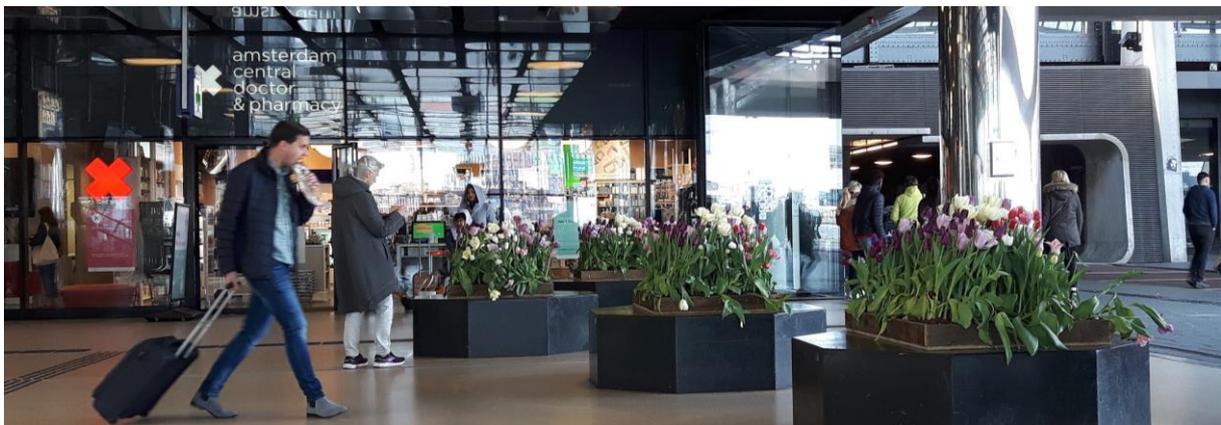


Figure 44: Observation photo The Netherlands number 6.

Accompanying observation text with figure 44: The lady is **taking a photo of the tulips on the barrier.**



Figure 45: Observation photo The Netherlands number 7.

Accompanying observation text with figure 45: One man **stands on the Lego barrier**. He looks clumsy as he is having a hard time to find good balance on this piece of concrete. He is making photos of the square, so he is **using the object to get a better position for the photo.**



Figure 46: Observation photo The Netherlands number 8.

Accompanying observation text with figure 46: Five new people **sit down** at the 1st and 2nd barrier. One of the five persons **lays down** on the barrier. The others remain seated.



Figure 47: Observation photo The Netherlands number 9.

Accompanying observation text with figure 47: There are **five people sitting on the 1st barrier and 4 people on the 2nd barrier**. The persons on the 2nd barrier are **using the barrier as a table**. They sit on the corners and **have food in the middle**. Two people are leaving the 1st barrier. On the 3rd barrier are **seven people seated**. One of them is **taking photos**, two are eating, one is taking something out of his jacket and has his cup of coffee placed on the barrier, and the other three are talking with each other.



Figure 48: Observation photo The Netherlands number 10.

Accompanying observation text with figure 48: One of the women **stands on the barrier**, so a man **can take a photo of her**.



Figure 49: Observation photo The Netherlands number 11.

Accompanying observation text with figure 49: Two persons **sit down** at the 1st barrier.



Figure 50: Observation photo The Netherlands number 12.

Accompanying observation text with figure 50: Another young man **stands on the 3rd barrier and takes a photo of the square.**



Figure 51: Observation photo The Netherlands number 13.

Accompanying observation text with figure 51: One woman **sits down**, and **another man takes a photo of her.**



Figure 52: Observation photo The Netherlands number 14.

Accompanying observation text with figure 52: The two women on the 3rd barrier finished their Starbucks drink and are **looking on a map** now. Later **one of them** is polishing her nails.



Figure 53: Observation photo The Netherlands number 15.

Accompanying observation text with figure 53: The two women on the 3rd barrier finished their Starbucks drink and are **looking on a map** now. Later **one of them** is polishing her nails.



Figure 54: Observation photo The Netherlands number 16.

Accompanying observation text with figure 54: The observation ends. There are still **seven persons sitting** down on the 1st barrier, **five** on the 2nd barrier, and **seven** on the 3rd barrier.



Figure 55: Observation photo The Netherlands number 17.

Accompanying observation text with figure 55: The couple leaves the first barrier and **7 young girls climb** on it **to take a selfie**. The 7 girls are still **posing on the first barrier for photos**.



Figure 56: Observation photo The Netherlands number 18.

Accompanying observation text with figure 56: On the 1st barrier, **two people are seated** and eat something. They are feeding the pigeons in the meantime. One **pigeon walks on the barrier** and is looking for food. A bicycle is parked against the 2nd barrier.



Figure 57: Observation photo The Netherlands number 19.

Accompanying observation text with figure 57: On the 3rd barrier a couple is **standing**, and they **take a photo of the square**.

Appendix VI: Overview with ZETA guidelines

A national support organization for safety regions and safety partners in the Netherlands, IFV (2013), describes in a social safety report how social safety can be influenced relatively easily by design, construction, and management, by applying four guidelines that are in conjunction with each other. Those guidelines are:

1. Ensure visibility (Visibility)
2. Ensure a clear zoning of territories (Clarity)
3. Ensure accessibility or, on the contrary, inaccessibility (Accessibility)
4. Provide an attractive environment (Attractiveness)

These guidelines are abbreviated in the Dutch literature to ZETA [Zichtbaarheid, Eenduidigheid, Toegankelijkheid, en Aantrekkelijkheid] and are important in the planning of securing at-risk sites with C-VTAD (IFV, 2013). Every aspect of the ZETA strategy is explained in more depth below:

1. Visibility is about seeing and being seen. People want to see and know what is happening in their environment and want to trust that others will see and know that too. Whether there is sufficient visibility somewhere, depends on the presence, the function, and the use of the object. *Therefore, it is important to consider if the barriers are providing security or only conveying a false sense of safety and security. Placing too many barriers in the landscape with the intention of increasing visibility can also turn out to be wrong and can give a feeling of anxiety instead. Is it enough for people to see something happen (image)?* When only a few barriers are placed and the visibility is good, perpetrators have a good overview of possible targets and escape routes. This is something that you want to avoid to some extent.
2. Clarity means that it must be clear to both the users and the designers what status and function the barriers have. The function of the barriers must be clear when looking to its shape and layout. For example, it is not convenient to place barriers that will disturb traffic like suppliers and emergency services or impede users (in this case the tourists) from using the sidewalks or squares. It is also important that the tourists can orientate themselves well. The placement of the barriers must be logical with good orientation options. This is especially the case for first-time visitors who are not familiar with the location. If this is not the case, it can cause confusion and uncertainty for tourists, creating feelings of insecurity.
3. Accessibility discusses to what extent the at-risk site must be easily accessible for intended use, e.g. the tourists or emergency services and inaccessible for undesired and unintended use, in this case for ram raiders. *Is it possible that each barrier is 100% resistant to a vehicle terrorist attack?*
4. It is important that the at-risk site remains attractive and that despite of the barriers, the site still conveys a warm and welcoming feeling to tourists. Visibility, clarity, and accessibility (the previous three aspects) are the first conditions for an attractive environment. Other aspects to consider are aesthetic quality, maintenance, aesthetic sustainability, technical sustainability, and social sustainability.
 - Aesthetic quality refers to form, dimensions, texture, material, and color. Tourists can feel (un)comfortable when e.g. the design or form do not fit their cultural expectations and personal identity. Usually natural colors or materials are perceived attractive (green, water, shelter).
 - Maintenance strongly determines the attractiveness of a space or object. Clean and whole is more attractive than dirty, broken, and smelly.

- Aesthetic sustainability refers to the point of attention where an object is built in a certain way, so it cannot quickly become obsolete.
- Technical sustainability relates to a certain degree of robustness that the devices must have to resist bad weather conditions and vandalism.
- Social sustainability discusses the feelings of safety that are strongly related to social cohesion.