Investigating the Cycling Experiences & Integration Challenges of Copenhagen's Migrant Women

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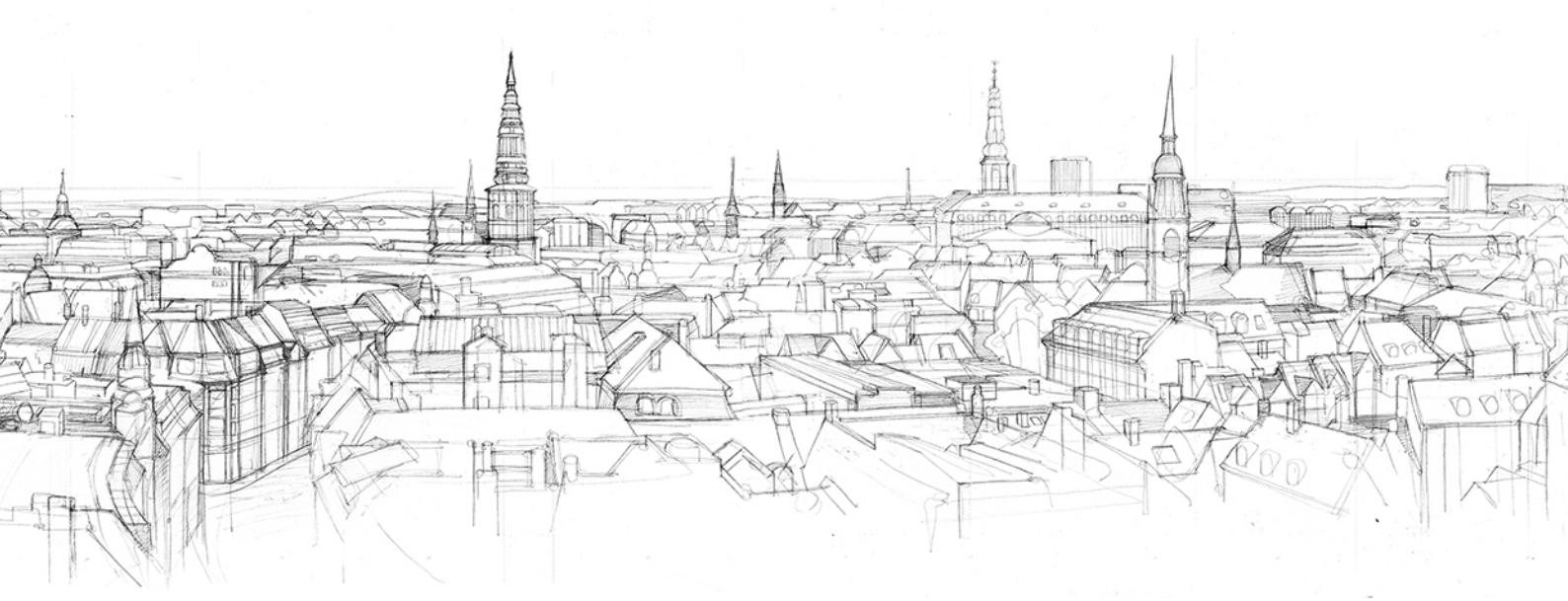
All photographs in this thesis were taken by author, unless otherwise specified.



Abstract

In an era marked by mounting environmental crises and the climate emergency, more and more cities are coming to reconsider their mobility strategies. In many cases, the need for sustainable transportation drives the bicycle to the forefront of mobility planning. With this consideration, the bicycle must be cast as a gender-neutral, egalitarian form of mobility that anybody can use; however, this is not always reality. Existing literature depicts the historical existence of a cycling gender gap, which studies suggest is vastly attributed to concerns of street safety and harassment. Some cities may have appeared to overcome this gender gap — Copenhagen is often deemed the most bicycle-friendly city in the world, in large part because it is considered to be gender-inclusive. Yet, while this may be true for some, this disparity can vary among different demographic groups. In this Master thesis, the case study of Copenhagen is examined with an explanatory research approach to understand the cycling and integration experiences of migrant women from the MENAPT region, a group that is quickly expanding in the city. While previous scholarship has indeed pointed to a disparity in cycling between migrant women and their counterparts, the intersectional factors contributing to this discrepancy remain less understood. Guided by the New Mobilities Paradigm, this thesis examines the spatial, cultural and social realities that inhibit non-Western migrant women from cycling. A qualitative approach is utilized, combining document analysis and semi-structured interview methods in order to capture the complexity of mobility and understand the environment in which these exclusionary practices manifest. Moreover, the analysis sheds light on "vulnerable housing areas", formally designated as "ghettos", as a spatial concept that further marginalizes migrants, perpetuating exclusionary mobility practices and divisive rhetoric. The results show an interplay of factors that influence the cycling gender gap among migrant women: an interconnected web of harsh immigration policies, divisive rhetoric, minimal mobility plans or education that exacerbate pre-existing cultural barriers harbored by the women. Yet, there are findings that transcend either of these points; this research also finds that some women, despite these integration challenges, have still been willing and/or able to take up cycling through other avenues. Despite this, a recurring theme emerges from the narratives: the bicycle serves simultaneously as a catalyst and a barrier to integration and social acceptance. By reframing the discourse on urban mobility, this research offers a nuanced perspective on mobility and integration that paves way toward more inclusive cities that prioritize the equitable movement of all.

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Introduction

Amidst the rise of climate change and other imminent environmental hazards, cities are beginning to critically rethink their mobility strategies (Hickman et al., 2013). This impending crisis requires a social and cultural shift — one that steers away from the automobile and encourages active forms of mobility, such as the bicycle (Pearson et al., 2022; Macioszek et al., 2020; Kenworthy & Laube, 1999). In many urban areas, the bicycle has transcended its conventional role as a mere means of transportation, becoming a symbol of sustainable living, active mobility, and urban transformation. By moving toward more green forms of transportation, cities are committing sizable funds to build bicycle paths and close off pockets of their downtown cores to cars. We have already witnessed this progression in cities such as Paris and Barcelona (Keeley, 2022) yet, at the forefront of this movement stands Copenhagen.

Copenhagen's cycling renaissance and extensive cycling infrastructure stands as a commitment to prioritizing human-powered mobility. Often, the bicycle is even considered to be the national symbol of Denmark — as the saying goes, "the bike is a Dane's best friend" (Denmark.dk, 2023). This ethos has become an integral part of the city's identity, fostering a culture where cycling seamlessly dominates everyday life. This form of mobility has also been renowned for being so gender-inclusive, with bicycle culture appealing equally to both men and women and transcending previous cycling gap theories (Mitra & Nash, 2018; Dill et al., 2014). Yet, this is not entirely accurate as the bicycle continues to remain inaccessible to certain demographics. In particular, there is an overlooked narrative among Copenhagen's MENAPT, non-Western migrant women and their struggles to access and navigate this culture.

Despite cycling gaining traction on an international scale, studies indicate that women from the MENAPT demographic still cycle less compared to other groups (Segert & Brunmayr, 2020; Haustein et al., 2020), prompting a critical inquiry into the factors influencing their participation and its implications for integration. Despite the existing literature regarding these incongruent mobility patterns, this phenomenon has only been explored at face-value. Current publications do not adequately address the nuances that exist in much of feminist theory or migration studies, where disparities in power and access to forms of mobility extend past merely a conversation of culture. There exists a research gap in understanding the complex interplay between culture, gender identity, local context, policy, and public discourse, and how these elements affect the ability to access certain behaviors and opportunities. More specifically, there is a lack of scholarship detailing the spatial and residential realities of migrants in Denmark and the driving forces which hinder their mobility. I seek to close this gap by providing a more nuanced take of existing theory, as well as a deeper understanding of the factors that guide the interplay of mobility and integration in a bicycle-capital like Copenhagen.

Given the complex nature of this research focus, one main research question and two supporting sub-questions will be answered:

- Which factors motivate or hinder non-Western migrant women's involvement in cycling, and how does this affect their process of integration into Danish society?
    - How are these integration challenges informed by cultural norms and societal attitudes toward cycling?
    - How does the spatiality of the 'ghetto' influence the mobility dynamics and access challenges experienced by migrant women?

In order to adequately address these questions, a qualitative, explanatory case study approach is used. Following a recap of the academic context surrounding feminist geography, sustainable mobility, immigration, and other socio-spatial theory, I provide a guiding framework to structure the findings of this thesis. A step-by-step methodological approach is then introduced; a document analysis of Danish policy speeches, documents, and mobility reports is followed by four rounds of semi-structured interviews, conducted with migrants and informants in the field. To conclude, a coding, categorization, and thematic analysis process is used to identify recurring themes and other insights that can further develop this interplay of cycling and integration.

This research aims to underscore the transformative power of cycling — a force not confined to transportation but a catalyst for integration and even empowerment. Amplifying the stories and first-accounts of non-Western migrant women is necessary in order to enrich discussions on their access to urban mobility, as well as gender dynamics, and social inclusivity. Moreover, the insights garnered from this research bear practical implications for policymakers, urban planners, and community advocates, fostering the development of targeted initiatives that embrace and promote more inclusive cycling.

Definition & Terminology

To ensure an informed understanding of key terms and concepts, this section will contextualize the most commonly used terms throughout this study. This will better equip the reader to engage with the subsequent analyses, acknowledging all possible sensitivities and nuances.

The term 'migrant' will refer to a person who is currently living in Denmark, but was not born in Denmark and does not come from a parent with Danish heritage. To be recognized as Danish under the national census, an individual must hold a Danish passport and have at least one parent who also holds a Danish passport and was born in Denmark. Anybody who does not meet this criteria, regardless of being a passport holder, is defined as either a 'Western' immigrant or descendent, or a 'non-Western' immigrant or descendant. This is per the official definition provided by Statistics Denmark (2023).

The descriptor of 'non-Western' will refer to immigrants who originate from the MENAPT region (European Commission, 2020). Throughout this study, the term 'migrant' or 'non-Western' is always used to refer to women from this region, unless stated otherwise.

The acronym 'MENAPT' is a classification recently coined by the Danish government, depicting a broad category of what is considered a non-Western country. The term has been narrowed down to describe a select group that was chosen in particular to depict the rising crime and unemployment rates found among this demographic, more than any other in Denmark. The term narrows in and specifically alienates these 24 countries that fit the description: "Syria, Kuwait, Libya, Saudi Arabia, Lebanon, Somalia, Iraq, Qatar, Sudan, Bahrain, Djibouti, Jordan, Algeria, United Arab Emirates, Tunisia, Egypt, Morocco, Iran, Yemen, Mauritania, Oman, Afghanistan, Pakistan and Turkey" (European Commission, 2020).

The term 'ghetto' will be used as per its government definition, defined as a marginalized social housing or residence area that fulfills a certain number and type of criteria relating to ethnicity, crime, employment, education, and income. Although the term was removed from policy in 2021, it will still be used throughout data analysis of present-day findings in order to frame past policies and make sense of the story of immigrants in Denmark. Despite this decision being motivated solely by academic and comprehension purposes, this research remains attuned to the sensitivities and complexities associated with heavy terminology.

Literature Review

Sustainable Mobility

Transportation is intrinsic to the growth and longevity of a functioning city. Yet, the transportation sector has become among the largest contributors to climate change, responsible for one-fifth of all global CO_2 emissions (Environmental Protection Agency, n.d.). Particularly, countries in the Northern Hemisphere are responsible for 92% of these emissions (Robinson, 2022). As nearly 70% of the world's population is projected to live in urban areas by 2050 (United Nations, 2018), cities are struggling to combat the impending social, economic, and environmental overflows. Transportation infrastructure is at the forefront of the sustainable agenda, and has become an urgent matter of urban affairs.

The concept of sustainable mobility first emerged in policy around the late 1980s, with the publication of the United Nations Brundtland Report (United Nations, 1987) and later the Commission of the European Union's "Green Paper" (European Union, 1992). Today, the term is defined as a type of transportation that holds "an acceptable level of social cost associated with the physical movement of people and goods" (Nijkamp et al., 2022) so long as it is "safe, affordable, accessible, efficient, and resilient" (United Nations, n.d.). Among these 'social costs' include the effects on environmental quality (noise and air pollution, release of atmospheric CO_2 emissions, land use) as well as other safety factors (injuries due to road crashes, ability to access and utilize transport safely), economic dimensions (percentage of subsidies allocated for transport expenses), and practicality measures (the time it takes to get to and from a transport stop or other destination). This framework of sustainable assessment has been modeled by Wang (2014).

This new approach to transportation was originally propagated by the sustainable mobility paradigm (Banister, 2008). The paradigm takes on a more human-centered approach, where transport becomes both the cause and the cure for major environmental challenges in growing urban areas. Banister (2008) deems sustainable mobility as "an alternative paradigm within which to investigate the complexity of cities, and to strengthen the links between land use and transport" (p. 73). He maintains a clear rejection of traditional planning approaches, which fail to consider social dimensions and their impact on transport. The paradigm advocates for a modal shift in policy, where car usage can be reduced by promoting walking and cycling as alternative modes of getting around, as developed by the new "transport hierarchy." This hierarchy places social factors and accessibility at the forefront of transport planning and design, all while considering the street as a space for not only cars, but people (p. 75). Expanding upon this, Mitchell et al. (2016) also encourages the notion that transport must not be considered as an isolated journey, but rather one that considers holistic design, with the human at the forefront of the experience.

Gender & Mobility

In traditional planning and mobility practices, individuals are often looked at under a neutral lens with clear disregard for our inherent differences and lived experiences. Since the mid-1970s, studies from feminist geographers have detailed gender as a crucial factor that impacts the individual experience in urban space (McDowell, 1983). A rise of feminist architects in the mid-1980s have produced work that details critiques against the predominantly male field of urban planners and their failure to create equal public spaces.

However, this element of gender is oftentimes attached to hegemonic power relations, including race or socioeconomic status (Law, 1999; Reigner & Brenac, 2019). Thus, urban space is constantly reinvented under these forces, negatively impacting more disadvantaged groups.

Historically, the patriarchy has upheld the notion that men should operate in the public space (the breadwinner, the businessman, the political figure) and women in the private space (the maternal figure, the cook, the domestic, stay-at-home-with-the-kids wife) (Uteng, 2012). From as far back as the 19th century, literature has emphasized the rise of the male "flâneur" as a symbolic representation of "the city street as a site for male privilege" (Van den Heuvel, 2018, p. 693) as he wanders the streets of grand, European cities. The gendered role of the flâneur as exclusively male abolishes women from the sphere of the "flânerie" (the aimless state of walking and strolling within the city). Rather, the woman becomes an object of control in the private space, hidden away from the city's "immorality and temptation." When a woman was permitted to enter the public sphere, she was required to do so under the company of male chaperonage, restricting and controlling "the conditions under which women could partake in street life" (p. 693), and thus sacrificing ownership and freedom of movement.

Over time, this produced a "spatial dualism" which resulted in a "gender-polarized world: men rule outside, women inside" (Lico, 2001, p. 39). Although this carries truth today, particularly with women in low-income areas that must spend more time at home, (Uteng, 2012), more and more women are finding their autonomy outside the private space. This requires them to utilize various forms of transportation and find a unique mobility pattern that is different from that of men. This phenomenon speaks to the uneven spatial behaviors that exist among the genders: women are statistically proven to walk and take public transport more than men do, all while carrying out more multi-stop errands around the city (CIVITAS, 2019). Oftentimes, the mobility patterns of women will be very complex and center around childcare or being a caregiver that handles domestic household tasks. On the other hand, men's errands center around singular activities that often do not accommodate for more than just himself. In this sense, we see gender as a predictor of travel (Krizek et al., 2005) that can influence mobility behaviors in urban space. This presents an intersectional approach to the relationship between gender and mobility, citing the power structures that keep women in a position where their freedom of movement is subordinate to that of men. This comes with additional constraints on their safety and security. With these patriarchal social norms in place, a devaluation of women's lived experiences and mobilities eventually forms a "possible setting for subordination and exploitation" (Lico, 2001, p. 30). This presents an obstacle when considering how to plan cities and infrastructure for women's needs, only serving to perpetuate the gender gap further.

The Cycling Gender Gap

Throughout feminist scholarship, it has long been argued that gender is an integral part to comprehending the social norms and structures that influence unequal mobility patterns (Law, 1999). Historically, there has been a well-documented cycling gender gap, in which a disparity is found in cycling participation and behaviors among men and women (Mitra & Nash, 2018; Dill et al., 2014; Ravensbergen, 2020; Shaw et al., 2020). Although this inequity is found across a spectrum, it is often with commuter cycling that this remains the most unequal, with women cycling to commute far less than their counterparts (Grudgings et al., 2018;

Twaddle et al., 2010). Comparative studies, such as those by Goel et al. (2021) and Pucher and Buehler (2022), have performed cross-continent analyses that assess modal shares of cycling in different cities to conclude that a majority of cyclists tend to be male. Whereas more bicycle-friendly cities (i.e. Amsterdam, Copenhagen, Hanover) will typically lean toward a more gender and age inclusive bicycle culture, car-reliant cities (i.e. Los Angeles, Melbourne, Rio de Janeiro) tend to be dominated by young and middle-aged men cyclists (Garrard et al., 2012). This gap is often influenced by a complex interaction between systemic factors, namely social and cultural norms, infrastructure design, safety perceptions, and policy considerations.

A study by Schintler et al. (2000) notes that women's travel behavior mainly differs on the basis of three factors: distance traveled, mode of travel used, and the purpose or complexity of the trip(s) they make (p. 33). For one, these varying travel behaviors can often be attributed to care mobilities and household duties. Van der Kloof (2015) addresses the idea that gender roles can be attributed to women's attitudes regarding traffic safety. In traditional households where women are often the primary caregiver, the child and family's needs will be taken into account first when navigating traffic and thinking about safety (p. 80). Assuming care and household responsibilities often results in women taking on more complex, multi-modal "trip chains" that do not usually allow the capacity for cycling (McGuckin et al., 2005; Garrard et al., 2012). This is especially considering that women and girls often lack access to bicycles and cars entirely; in family households, it is mostly men who have the access to these transport modes (Tiikkaja & Liimatainen, 2021). In turn, this limits female access to reach their means of education, friendship or familial networks, employment, or recreation. Socio-cultural norms regarding cycling extend into many regions of the East, namely in Middle Eastern or North African cultures, where it is considered culturally deviant for women to cycle (Nadimi et al., 2022; Soltanzadeh & Masoumi, 2014).

Urban violence and harassment remain among the largest obstacles for women to freely navigate public space. Although there is an understanding that women commonly feel restricted to participate in forms of active mobility (i.e. walking, cycling) or public transportation as a consequence of fear, there also exists literature that highlights the potential benefits of cycling in the same context. A study conducted by ITDP (Institute for Transportation and Development Policy) Brasil found that low-income women in the city of Recife believed cycling to be a positive mode of mobility for short-trip commutes as a way to combat street harassment and gender violence. Unlike walking and public transport, they envisioned cycling to provide an opportunity to travel faster and more independently, freeing them from the harassment they would normally face on public transport or at transport stops (ITDP, 2018). Although this still comes with other risks (i.e. fears of road and traffic safety), there is indeed potential for cycling to help break the gender violence cycle. Of course, it should be noted that this is not a universal case; other studies outline the reality that many women, even while cycling, still fear the activity as it comes with additional street harassment (Díaz-Carrión, 2020) or cases where the bicycle can be weaponized by men as a tool to perpetuate "hit and run" street violence (Hutson & Krueger, 2019).

Mapping Women's Fear in the City

The concept of fear has been steadily recognized as an important topic within feminist geography, but it was not until more recently that spatiality was linked to the perception of violence. Pain (1991) argues that the nature of a "women's fear of crime [...] differs in its extent, its nature, its relation to actual risks, its effects and its potential for structural analysis" (p. 418). It has become increasingly understood that it is not solely gender inequalities that predict usage of space, but rather, it is also:

- constraints on the use of space
- the distinction between public and private space
- the social construction of space into "safe" and "dangerous"
- the social control of women's spaces (Pain, 1997, p. 231).

Nowadays, there are increasingly more studies such as those of Scraton (1998), Fenster (2005), and Bryant (2007) who conceptualize the interconnected relationship between space and the manifestation of fear. These scholars report their research findings from interviewing or observing women on the street, and how their mobility patterns through the city depended on factors such as visibility from street lamps, male presence, or walking without a companion. Here, "place, time, and mode constraints on mobility choices" (Hidayati et al., 2020, p.156) are all influential factors that determine the unique path women will adopt in the city. Depending on the limitations of the path, this may even begin to affect their "social and physical exclusion, limiting equal socio-economic opportunities" (p. 156). The overarching reason for these limitations is the hegemonic and social power structures that subordinate women. Many of the women's perceptions of public spaces were "perceived in terms of safety and the possible threat of male violence" (Scraton, 1998, p. 131) and they even go so far as to create mental maps of their journeys "in relation to their fears of possible male violence" (Valentine, 1989) based on the areas that pose the least threat to them. By voluntarily mapping out their journeys of mobility and attaching fear to place, even choosing particular "no-go" areas to avoid particularly at night, women lose their freedom of movement and are limited in the public sphere. In this sense, the understanding of fear and the inequality of gender is perceived spatially. Other scholars such as Painter (1995) perpetuate this argument by asserting that women do not fear crime, but rather, fear men. It is a type of fear that not only limits freedom of movement, but "alters their perception of space and the built environment" as a reminder that "men dominate public space and control access to it" (p. 177).

Yet, some authors argue that restricted city spaces which force women to navigate a different reality may also be employed as a symbol of power. Many women will reinvent other ways to access space — i.e. through hailing a taxi, walking with a friend, or leaving the house before it gets dark. Here, we can see "a site of women's actualization of breaking out of gender constraints, and of achieving power" (Wrede, 2015, p. 10). This may offer a point of resistance where women can appropriate space by regaining control of their mobility behaviors.

Cycling | Motivators & Inhibitors

Scholarship from the early 1990s finally began to recognize the bicycle as one of the most sustainable methods of transportation within cities today (Pucher & Buehler, 2017). It is not only affordable and allows for individualized and independent movement, but comes with minimal to zero environmental costs, takes up less roadway, is a healthy alternative to the car, and is often a more affordable option as well (Götschi et al., 2016; Fraser & Lock, 2011). With cycling emerging as a hot topic in urban studies and discussions on public health, there is a rising question on how to increase the number of cyclists in cities and thus mitigate environmental costs. Despite these aforementioned benefits, many urban areas are not yet equipped to take on cycling as a prevailing form of transportation. Moreover, in most of the industrialized world, cycling is still seen as quite a marginalized and overlooked method of mobility (Pucher & Buehler, 2017).

In a study on the environmental determinants of walking and cycling, Pikora et al. (2003) consider two types of cycling: recreational and utilitarian (or transport-oriented) cycling, arguing that both of these are influenced by various internal and external factors that affect mobility patterns. The scholars set up a theoretical framework to gauge the motivators and inhibitors for cycling under four categories: 1) functional (an assessment of the physical infrastructure of the environment; i.e. street width, traffic, and design), 2) safety (measuring the safety measures of the physical infrastructure via street crossings, separation of people and cars, or presence of street lamps and sufficient lighting), 3) aesthetic (analyzing how visually pleasing an area is based on cleanliness, interesting sights, or good air quality), and 4) destination (the proximity of community networks and other local facilities, as well as appropriate bike parking upon arrival) (p. 1696). Following an assessment of both urban planning experts and average pedestrians and cyclists, issues related to traffic safety and infrastructure were the predominant factors influencing the individual's choice to cycle, particularly utilitarian cycling. This included whether there was a wide barrier between car traffic and the cycling route, or how much paved space was allocated to the cyclist. Additionally, convenience was another significant factor determining individual transportation choice (Levinson et al., 2005), citing travel time and cost as equally important. This is dependent upon how long it takes to reach a destination, if the individual has any childcare responsibilities, if they have suitable clothing to ride, or if they are carrying items that cannot be properly transported via bicycle (Pearson et al., 2022). Overall, the data shows that compact cities with these qualities of safe street design and infrastructure would encourage more cycling; likewise, individual responsibilities along with possible inconveniences of the bike led to a general distaste in cycling.

Despite these conclusions, there is still a conversation to be had in regard to the public image toward cycling and general forms of active transportation. In many Northern countries such as Denmark, the Netherlands, or even Japan, cycling as a means of commuting is not only widely encouraged, but considered as a norm (Belgiawan et al., 2014). On the other hand, car-centric or low-cycling countries such as the United States, the United Kingdom or Australia, often stigmatize cycling as a method of transport that is looked down upon for its peculiarity. According to the League of American Bicyclists (2014), immigrants and/or those in communities of color tend to live in "transit deserts." Jiao and Dillivan (2013) coined this term to define communities of color, often with a heavy migrant population, that are unable to freely access transit options. Many of these same marginalized communities, plagued with a stigmatized socio-economic status, are forced to turn to other affordable options, namely the bicycle — "immigrants

are twice as likely as US-born Americans to travel by bicycle" (League of American Bicyclists, 2014). Yet, this is often happening in areas that are structurally, societally, and politically unequipped to handle this mode of transport.

This notion is also perpetuated in countries where there is a higher presence of power imbalance and corruption. In these places, "the bike and public transport are often stigmatized as transport modes for the poor, while the car serves as an important status symbol" (Belgiawan et al. 2014; Pojani et al. 2017; Van et al. 2014, as cited in Haustein et al., 2020, p. 4). In many places, the automobile, rather than the bicycle, serves as an access point to society. For example, Cheal (2003) researched transit-rich and transit-poor areas of Melbourne to highlight the status of the automobile. Without a car, one may find themselves in situations where they are "severely restricted in the times and destinations to which they can travel", resulting in social exclusion and participation (p. 21).

When the bicycle is not at the forefront of normalized mobility behavior, it can be "otherized" by car-users and pedestrians. Analyzing this under the sustainable theory of stigma (Deacon, 2006), which defines stigma as "the process of othering, blaming, and shaming", cyclists are stigmatized and viewed as deviant on the road. A study from Basford et al. (2022) has signaled the rise of a "road user hierarchy": larger vehicles are typically more respected and acknowledged, while smaller vehicles tend to be overlooked and "come off the worst in an altercation" (p. 7). This pushes cyclists in a negative light, who are thus viewed at the bottom of the hierarchy. Judgment cast upon cyclists is perpetuated by assumptions made by car drivers and "other road users", who claim that cyclists are incompetent, interrupt their livelihoods and ability to reach their destination faster, and disregard rules of the road (Basford et al., 2002). Another study from 2019 found that cyclists, being a minority of road users, are particularly targeted and are even rated as "less than fully human" by automobile users in Australia (Beres, 2019). This perpetuates the process of othering, where the cyclist becomes a type of suspect on the road to be avoided at all costs.

Cycling Stigmas Among (MENAPT) Migrant Women

Research shows that migrant women tend to encounter more mobility impairments than those of their counterparts, and cannot access transport options such as cycling as easily (Segert & Brunmayr, 2020). In turn, according to Baek et al. (2016), non-Western migrant women tend to be less physically active than white, European women (p. 1541). In many cases, these migrant women often grew up without the proper resources to purchase or own a bicycle, while others are not self-reliant enough to trust themselves cycling alone. Additionally, many European countries fail to grant proper education or programs targeted at migrants that address health, health behavior, and physical activity, despite the fact that "refugees' health status after receiving asylum in their new country is often poor, particularly in Denmark (Ryom et al., 2022).

In many Middle Eastern or predominantly Muslim countries, boys are often given the priority to own a bicycle, while women are not traditionally taught to ride one. In fact, a woman riding a bicycle in a Muslim country such as Egypt or Saudi Arabia is often considered "shameless" under patriarchal norms. Especially around the time of puberty, a woman's position on the bicycle can suggest a sexual nature that must be avoided for fear of immodesty (Amini & McCormack, 2020). Additionally, many of these patriarchal

societies are afraid of the possible liberation that the bicycle holds, which would threaten a departure from traditional gender roles.

Studies by Hatefnia and Raoofi (2019), Mirsafian et al. (2014), and Toffoletti and Palmer (2015) show a tangible correlation between women of Muslim faith and a willingness or ability to exercise. Given that "women's sport has always been a challenging subject in Muslim communities and [among] Muslim women" (Mirsafian et al., 2014, p. 951) this presents a clash with faith and family values that determines whether or not to participate in sport. This has also influenced attitude toward sport and exercise, which both tend to be quite negative. While many Muslim families often value their daughter(s) through their ability to meet standards of hard work and achievement, sons are deemed worthy by their level of physical performance and fitness (Aljayyousi et al., 2019). While this idea holds true on a general scale, it is also important to note that in schools or facilities where Muslim and/or Arab women are willing to participate in physical sport, there is often an issue of cultural and religious barriers; i.e. the facility does not accommodate women who must be in modest dress, does not have separate changing rooms to conceal in a private space, or does not have co-ed classes or female instructors (Hamzeh & Oliver, 2012; Gumber & Gumber, 2017). On the other hand, there is often a lack of encouragement and marketing targeting women of this background to cycle or participate in physical exercise (Summers et al., 2018).

Literature by van der Kloof (2015) and Maxwell and Taylor (2010) have noted that many of these women typically lack the navigational and independent skills that come with utilizing a different mode of transport on their own, as this would exercise a form of social control which is not often exhibited in their culture. This behavior comes as an extension to the idea that, especially for migrant women of this background, it is difficult to assert oneself as a cyclist on the road. Women of this background habitually take on more of a home-body status, where they are either home with their families or out running errands with their children in tow. This theory is echoed by Hamzeh and Oliver (2012), who claim that in order for Muslim women to participate in activities that are not deemed "the norm", such as the bicycle, there needs to first be some level of tangible endorsement from familial or community male figures. This is why scholarship emphasizes that more focus should be placed on encouraging urban planning that recognizes the impact that culture, faith and background has on user behavior. In this sense, cycling could be advertised to Muslim women as an effective strategy if others set a precedent for them to learn from and embody for themselves (Toffoletti & Palmer, 2015; Summers et al., 2018).

It is important to note that these are merely general trends and customs of women of this faith and background; there are numerous, diverse Muslim countries and ethnicities, complete with various levels of what is permissible in terms of dress, conduct, and participation [in sports] (Mirsafian et al., 2014). These barriers can heavily differ based on geographic location and social trends, which is why the "unique and diverse cultural and religious requirements of Muslim women" should be understood to "create opportunities by developing a sense of belonging" (Maxwell & Taylor, 2010, p. 481) where the intersectionality of faith, ethnicity, and (legal) status is of the utmost consideration.

Spatial Segregation & Social Exclusion

With a recent influx of migrants from non-Western countries in the Middle East and North Africa to predominantly white regions, ethnicity and/or physical appearance has played an increasing role in limiting one's ability to access spaces in a new city (Nawyn et al., 2012). Non-Western migrants often find themselves in the most vulnerable position of all, experiencing varying levels of restricted mobility. Mobility as a form of exclusion is highlighted by Poulsen and Hansen (2014), where, specifically in marginalized communities, it is a key way to further understanding spatial segregation. By understanding people's different mobility patterns, modes, and times of travel, "mobility is seen as an expression of everyday abilities and limitations to be part of society" where certain occupations, networks, or opportunities can be closed off to certain groups who lack access (p. 2, machine translated in DeepL, 2023).

Spatially, this manifests as a consequence of globalization and other socio-spatial processes (Bölen & Caner, 2013) which have contributed to vastly uneven social landscapes and residential separation of groups. This phenomenon is considered to exist when some groups are either overrepresented or underrepresented in a particular space, thus creating an uneven social landscape (Orum, 2019). This can constitute spatial concentrations of enclaves isolated in certain zones of the city (Sabatini, 2006). Although segregation is an enduring phenomenon that dates back to the inception of civilization's first cities, academic literature on the topic did not arise until much later. Scholars at the Chicago School (1920) were among the first to publish literature that properly laid the foundation for urban sociology and a more intricate understanding of the intersectional factors that shape urban processes. Among these factors, the Concentric Zone Model was applied as a theory to better examine and understand urban and spatial segregation. The model depicted the spatial organization of a city in rings and zones, each specified by a type of land use and thus, specific social attributes. This was used as a stepping stone for understanding segregation on the basis of ethnicity, social status, or economic factors (Park & Burgess, 1925).

From a critical geography perspective, spatial segregation is often understood as a phenomenon that implies spatial concentrations and overrepresentations of a certain group. According to Massey and Denton (1988), segregation generally refers to "the degree to which two or more groups live separately from each other, in different parts of the urban environment" (p. 282). In order to measure the degrees and varieties to which segregation can exist, Massey and Denton systematically analyzed various segregation indices to find that segregation encompasses five different degrees of spatial variation: evenness, exposure, clustering, concentration, and centralization. The reasons for these varying degrees have been explained by certain indicators. For instance, groups can willingly segregate themselves into congregations. A study by Dawkins (2006) demonstrates the significance of having close ties to friends and family in one's physicality; this presence can often decrease the possibility of outmigration, as migrants tend to conglomerate in places they can achieve the most social capital. Other scholars such as Nieuwenhuis et al. (2019) assert that migrants often find themselves within a loop of segregation that impacts their ability to create networks and work their way out of the cycle. Some can end up "clustered in specific low-income, often already immigrant-dense, neighborhoods" that are difficult to break away from (p. 179).

These clusters can be defined as ethnic enclaves, or "immigrant groups which concentrate in a distinct spatial location and organize a variety of enterprises serving their own ethnic market and/or the general population" (Portes, 1981, p. 290-291). The discourse within literature has extensively deliberated upon the viability and advantages of ethnic enclaves. On one hand, they have been perceived as havens for migrants, affording them the opportunity to inhabit spaces where their distinct cultural knowledge, linguistic proficiencies, and social networks are esteemed as valuable attributes contributing to social capital (Bécares et al., 2009). This is of particular importance when considering that migrants often experience a deterioration of sense of self and identity once moving to their host country. A loss in this capital (i.e. connections, networks, resources, and support systems) can lead to a sense of displacement and isolation that urges a process of rebuilding (Glaeser et al., 2002). In this light, literature has also questioned the benefits of enclaves; these areas often suffer from inadequate urban infrastructure and limited employment opportunities (Feng et al., 2015). They are also subjected to limited amounts of information, such as where to see a doctor or how to stand up against mistreatment, for fear of putting themselves in danger (Nawyn et al., 2012). In fact, it is predominantly women from marginalized backgrounds who experience the greatest degrees of discrimination when accessing new spaces, a group frequently overlooked in migration research (Gilmartin, 2008; Vaccaro et al., 2019; Hafey, 2023). Studies show that these enclaves can hinder the process of adapting to local norms, languages, and customs necessary for effective integration, thereby impeding endeavors towards cultural assimilation and societal acceptance (Schüller & Chakraboty, 2022).

Formations of Community Engagement & (Migrant) Belonging

The abstract nature of the term "belonging" has made it repeatedly difficult to define its meaning and associations across various disciplines and literature. Generally speaking, however, belonging refers to an intersectional take on a fundamental aspect of the human experience: to feel a part of something (Saavedra et al., 2023). This pervasive human feeling has been documented throughout literature for years (Birtchnell, 1987; Henderson, 1974) and implies a desire to connect oneself to a community, person, or idea as a means to feel a "sense of personal involvement in a social system so that persons feel themselves to be an indispensable and integral part of the system" (Anant, 1996, p. 21). The term "belonging" in the context of human desire was first identified in the field of psychology, under Maslow's hierarchy of needs. Essentially a hierarchy of human needs, belonging is referenced as the third psychological need of humans which craves and even necessitates the desire for a variety of interpersonal relationships, affection, and meaningful interactions with family, communities, loved ones, or cultural circles (Maslow, 1943). Belonging was also a concept alluded to by the aforementioned Chicago School, in which the formation of ethnic enclaves would gain traction in specific neighborhoods, allowing migrants to maintain cultural ties and support networks as a part of something larger than themselves (Park & Burgess, 1925).

As belonging plays a pivotal role in shaping individuals' identities, well-being, and interactions within their environments, it is often understood as a key component of social integration. It reflects the degree to which an individual feels welcomed and included in a group — in this sense, it presents itself as a feeling that is not only individualized and subjective, but heavily shaped by the attitudes of the surrounding social environment. According to Molina et al. (2008), migrants tend to follow a series of strategies to develop

support networks and belonging in a new territory: assimilation through the formation of ethnic enclaves, transnational networks, and multi-ethnic support groups (in which various ethnic migrant groups come together in their shared experience, despite coming from diverse cultural backgrounds). This follows the discourse of Social Network Theory, which "focuses on the role of social relationships in transmitting information, channeling personal or media influence, and enabling attitudinal or behavioral change" (Beacom et al., 2017, p. 1). In this sense, migrant networks are key in facilitating the integration of newcomers into a space by providing information and assistance regarding local policies, job opportunities, childcare services and more, in hopes that the next wave of migrants to the area will have an easier transition (Meeteren & Pereira, 2013). Thus, this transition is often seen as a dynamic process that encounters a crossover of cultural identities and norms from the host society and the home society.

Belonging is also examined to identify experiences of both exclusion and inclusion. According to Saavedra et al. (2013), migrants have particularly unique experiences while in a new context; this includes navigating "daily interactions within legal, economic, social, and cultural spheres of society" that impact the nature of "migrant identities, adaptation in the receiving countries, sense of belonging and intergroup relations" (Kunuroglu et al., 2017, p. 1). When migrants have a positive experience in these interactions, it can heighten a sense of belonging, improve mental health, and increase participation in community activities. On the other hand, negative interactions lead to a lack of belonging, thus contributing to feelings of isolation, alienation, marginalization and decreased social engagement. This then has a direct impact on well-being, physical and mental health (Farrugia and Muscat, 2023; Arslan, 2021). The factors that contribute to belonging — or lack thereof — may involve formal issues concerning legal status and citizenship, or informal issues surrounding community participation in hobby, sport, or religion (Amit and Bar-Lev, 2015, as cited in Saavedra et al., 2013).

Theoretical Framework

Applying the New Mobilities Paradigm

When contextualizing the intricate relationship between migrant women, cycling, and integration, it is important to consider the intersectionality of these topics and how it extends past the scope of traditional mobility. For this reason, I implement the New Mobilities Paradigm (Sheller & Urry, 2006) as a comprehensive guiding framework throughout the course of this research. In the paradigm, the scholars refer to a new 'mobile sociology' that transcends the boundaries of classical sociology. Rather than seeing transport as merely a static, physical movement in space, they center mobility within classical sociology analyses, i.e. social mobility and stratification, in order to focus on social relations that result as a production of social phenomena. It enforces the notion that various factors (such as gender, ethnicity, socio-economic class, or legal status) influence one's mobility needs, movements, and opportunities. In this manner, the right to mobility remains uneven and imbalanced, creating senses of empowerment or social exclusion. Feminist theorist Ahmed (2004) perpetuates this argument with the idea that "idealization of movement […] depends upon the exclusion of others." This is also elaborated by Skeggs (2004), who

writes that "mobility is a resource to which not everyone has an equal relation" (p. 49) and oftentimes the exclusion and neglect of marginalized groups will, in turn, enhance the mobility of others.

By recognizing that mobility encompasses various dimensions, including social, cultural, emotional, and experiential aspects, social differentiation is presented as an explanation to the exclusion of some groups from the freedom to make modality choices in urban space. This thesis will take on a holistic and dynamic standpoint, going beyond traditional transportation approaches and exploring the multifaceted aspects of mobility as it applies to social connection, (dis)empowerment, and integration.

Methodology

This section delineates the study's research design and methodology to explore migrant women cyclists in Denmark, their integration into society, and the impediments they encounter. A synthesis of qualitative methods (document analysis, semi-structured interviews, and coding analysis) is used. According to Busetto et al. (2020), qualitative research is "the study of the nature of phenomena" and is recommended as an approach to studying complex ideas with "multi-component interventions" (p. 1). This can include "how people experience aspects of their lives, how individuals and/or groups behave, how organizations function, and how interactions shape relationships" (Teherani et al., 2015).

The qualitative characteristics of this research are complemented with an explanatory approach, a type of research design that intends to explore why certain phenomena occur. It is often used to provide additional insight into alternative factors that influence observed outcomes (Sainani, 2014). While there is documented theory and prior research findings that explain how non-Western (migrant) women cycle less, this research aims to delve deeper and uncover the underlying mechanisms, motivations, and barriers that contribute to the observed gender gap, specifically focusing on the interplay between national policy, culture and individual motivations.

Case Study Approach

In order to gain a deeper intimacy with the research topic, a case study approach was utilized to center in on Copenhagen and its contextual implications for this study. This thesis strategically employs Copenhagen's historical background as a foundation to highlight contextual realities. Through this, it aims to unveil how these factors have played a pivotal role in shaping the tangible experiences that influence the subject of investigation.

The case study approach "generates an in-depth, multi-faceted understanding of a complex issue in its real-life context" (Crowe et al., 2011). Obtaining appropriate situational knowledge and context specific analysis allows the researcher to further comprehend the complexity of certain causational dynamics that influence the phenomena being studied (Yin, 2003). In the social sciences, the method is employed to investigate the gap between theory and practice, thus intended to improve understanding through different perspectives that complement the scholarship provided (Breslin & Buchanan, 2008).

Document Analysis

The initial phase of this study involved a comprehensive analysis of policy documents related to migration, integration, and mobility in Denmark. This approach provides an unbiased and contextual understanding of government approaches toward these topics.

Document analysis often complements a qualitative case study to provide a more enriched understanding of a phenomenon (Yin, 1994). The method typically involves a systematic process of reviewing, evaluating, and analyzing an array of documents (i.e. public records, personal documents, physical evidence) (Bowen,

2009), in order to interpret what it entails for the larger context. This opens up a possibility for researchers to analyze concepts, people, or ideas that would have been otherwise impossible to access. Document analysis can also explore research gaps by identifying what is missing or omitted from documents. By using pre-existing data, it circumvents ethical concerns with less risk of being manipulated or subjective (Morgan, 2022; Siegner et al., 2018).

More specifically, the first part of the analysis is conducted through a lens of critical discourse analysis (CDA), an approach that "concerns itself with relations of power and inequality in language" (Blommaert & Bulcaen, 2000). CDA can decipher the connection between discourse and social practice, where language is intrinsically related to systematic power relations (Johnson & McLean, 2020). It is designed to challenge and even resist social injustices found in hegemonic power structures (Tenorio, 2011), allowing for an in-depth examination of language choices that construct meaning and influence social perceptions.

First, three policy documents depicting the rise of 'ghettoization' and marginalized communities were keyword skimmed for themes, policy shifts, and language that reflect prevailing attitudes related to integration, as well as for any mention of (public) transport, mobility, cycling, or transport connectivity. All documents are written in Danish, which presented a language barrier that required translation into English to facilitate analysis. The specific documents analyzed included the following:

- Policy paper, 2004: Regeringens strategi mod parallelsamfund
    - English: The government's strategy against parallel societies
- Policy paper, 2010: Ghettoen tilbage til samfundet: Et opgør med parallelsamfund i Danmark
    - English: The ghetto back to society: A reckoning with parallel societies in Denmark
- Policy paper, 2018: Ét Danmark uden parallelsamfund: Ingen ghettoer i 2030
    - English: A Denmark without parallel societies: No ghettos in 2030

These documents were sourced using the search tool on official government websites, namely Regeringen.dk (the official website of the Danish government) and Statsministeriet (the office of the Prime Minister of Denmark).

Next, mobility documents were analyzed to assess where policies, if any, may have fallen short in addressing the needs of migrant communities. An array of transportation and mobility reports, as well as municipal plans, were assessed to understand the gap between integration and mobility. The analysis sought to find any mention of current or past plans, proposals, or even education initiatives to combat this mobility inequity.

The following reports from the Københavns Kommune were reviewed:

- The Bicycle Account 2022
- Good, Better, Best | The City of Copenhagen's Bicycle Strategy 2011-2025
- Cykelstiprioriteringsplan 2017-2025
    - English: The Bicycle Path Prioritization Plan 2017-2025

…as well as the following plans and notes from the municipality of Brønshøj-Husum:

- Københavns Kommune meeting minutes, discussing urban development in Tingbjerg-Husum
- Municipal proposals from the Transport, Construction, and Housing Authority and Bliv Hørt

Translation Process & Considerations

As nearly all the documents were in Danish, a translation process was needed to ensure comprehensive analysis. To achieve this, the online machine translation tool DeepL was used to provide a reliable means of translating documents from Danish to English. In recent years, numerous studies have validated the legitimacy of DeepL translations, believing it to be highly accurate and better than other applications in terms of sentence complexity and overall comprehension (Polakova and Klimova, 2023). While DeepL provided accurate translations of the content, certain nuances of language and context may have been subject to minor adjustments. Any reference to direct quotes from these documents have all been translated to English, unless stated otherwise.

Semi-Structured Interviews

In-depth, semi-structured interviews were conducted during all rounds of data collection[1]. These interviews are commonly utilized in qualitative research "to collect open-ended data, to explore participant thoughts, feelings and beliefs about a particular topic and to delve deeply into personal and sometimes sensitive issues" (DeJonkheere & Vaughn, 2019). Semi-structured interviews are flexible in nature, consisting of questions that leave room for follow-up questions and comments that support the expansion of the conversation (Dearnley, 2005). This allows for a predefined framework of questions that gives participants the freedom to elaborate on topics that are personally valuable to them.

Intercept Interviews

While all interviews in this study were completed with a semi-structured approach, only the first round of migrant interviews utilized a combination of semi-structured and intercept interviews. This was purely due to the nature of the interview setting. This form of data collection involves stopping individuals passing by a specific location of interest to collect data, allowing the opportunity for spontaneous engagement. This is often planned in strategic areas where desirable participants may pass through (Flint et al., 2016).

[1] See Appendix A for complete interview table.

However, the research technique also implies recruitment challenges. For instance, sampling bias is likely; those who walk by the chosen research location may not always represent the broader population or the specific demographic of interest. Not only could this limit sample size to whoever happened to pass by that day, but it also raises questions of how to identify members of a target group (Sukamolson, 2007). For instance, choosing participants based on appearance tied to assumptions regarding race, gender, or socio-economic status may inadvertently perpetuate stigmas, essentialize their experiences, or make them feel tokenized or reduced to their identity rather than valued as individuals. Additionally, there are safety concerns involved; namely, individuals may not feel comfortable speaking with a stranger.

Participants

The participant pool was made up of two distinct categories: key informants in the field and ordinary women from migrant backgrounds. Both informants were women, aligning with the study's aim to capture women-centered experiences. The participant composition aimed to capture a broad spectrum of perspectives on the topic, considering not only the target group but also those who possess expertise in migration-related issues and work closely with it. The breakdown of those interviewed is as follows:

Informants

- Ida, security-cleared interpreter who assists migrants with a criminal background in legal proceedings within the court system. Works under the municipality of Copenhagen, facilitating communication between Danish and Arabic.
- Emm, head coordinator of a bicycle training class provided by Røde Kors Danmark. Actively engaged with integrating migrants into Danish society.

Migrants

- A total of 26 non-Western migrant women, all residing in Copenhagen. These individuals were selected based on their shared migrant background from a MENAPT country and their potential connection to cycling, either through personal experience or a mere willingness to engage in conversations about the topic. Two sets of interviews were conducted in two different months, with varying women, at diverse locations. This is specified further below.

Conduct & Ethics

All interviews were conducted anonymously; participants' names or other incriminating information was not associated with any collected data in order to ensure an environment where participants felt comfortable without a breach of privacy. Pseudonyms were allocated to the two informants interviewed. However, they were informed that despite this precautionary measure, their specialized positions in a small professional domain meant that complete anonymity could not be ensured. Confidentiality intended to encourage honest and candid responses, contributing to the authenticity of the data and maintaining participant integrity.

All participants were made aware of the purpose of the interview, its voluntary nature, and their rights to withdraw at any time. Verbal consent was obtained from all interviewees to record the interviews for transcription purposes, ensuring accuracy in capturing their responses for the coding process. All audio recordings were securely stored and deleted after transcription, adhering to privacy and data protection.

Both informant interviews were conducted entirely in English. Interviews among migrant women were also conducted in English, albeit with some caveats; to ensure accurate and nuanced communication, a handful of the women interviewed in Group A required assistance with translating specific words or phrases from Danish to English. To mitigate language barriers and facilitate open dialogue, participants were encouraged to express themselves in a manner that was most comfortable to them, regardless if it required brief translations or explanations to clarify their responses. By adopting this approach, the interviews aimed to maintain a balance between linguistic precision and participants' comfort, enabling a comprehensive exploration of their experiences while respecting their linguistic diversity.

Data Analysis | Coding

In order to analyze the interviews, a coding framework was developed to categorize recurring key concepts and themes.

Coding is a qualitative data analysis method where "codes", or descriptive labels, are assigned in order to identify related content, themes, or ideas within a data set (Linneberg & Korsgaard, 2019). This essentially produces a coding scheme, or connecting code sets that can better recognize certain discourses or lived experiences by theme (Fereday & Muir-Cochrane, 2006). This maintains an organized and accessible framework of the research findings that achieves a level of transparency, one that has meticulously studied the data's relevance and importance to the overall motivation of the study.

In this research, qualitative interviews were transcribed and studied; written transcriptions were then scanned for any key words, themes, concepts, emotions, or ideas that would pertain to the study and be used to organize larger, overarching thematic points.

Virtual Interviews with Informants

The two informant interviews both took place on Zoom, a video conferencing platform. Communication technologies, although still a relatively recent addition to research, are able to "offer new opportunities for the conduct of qualitative research", while some rate the platform more efficient and secure than other interviewing methods (Archibald et al., 2019, p. 1). Both interviews were conducted over approximately a one-hour session, and the remote platform allowed a more convenient and flexible approach to recruiting the informants. The choice to turn on video was also intentional, as non-verbal cues and expressions could be better understood and captured.

It is also worthwhile to note that relationships were built overtime with both informants; communication and meetings regarding my research took place in person at least once before interviews were finally carried out. This technique follows literature of Grinyer & Thomas (2012) and Read (2018), which emphasizes the benefits of serial meetings and interviewing, where participants can become more trusting and willing to confide information over time. This can foster richer and more legitimate information that is useful for research.

Informant 1

On Thursday, 16 March 2023, I conducted a virtual interview with the first informant, Ida. With over 15 years of professional experience working with migrants in legal proceedings and immigration matters, the informant brought a wealth of firsthand knowledge and insights into the challenges migrants encounter within the legal system. Her experience informed an understanding of cultural and linguistic barriers, opportunities access and the implications of policy decisions. Additionally, Ida's identity as a half-Danish, half-Lebanese woman who moved to Denmark at age 15 further informs her experience of understanding the intricacies of language and cultural barriers, standing as a mediator between both cultures.

The interview was approximately 50 minutes long. A total of 10 open-ended questions[2] were prepared prior to the meeting, covering topics related to migrants and their experiences in Denmark. This included questions surrounding barriers to navigating the legal system, cultural considerations, opportunity access, and future policy improvements.

Informant 2

On Friday, 12 May 2023, I conducted a virtual interview with the second informant, Emma. Involved in the field of cycling education for over 10 years and now the coordinator of the bicycle class in Frederiksberg, she brought a wealth of expertise to the discussion on cycling. Having worked closely with migrant women seeking to learn to ride the bicycle, her insights offered valuable perspectives on the potential challenges and opportunities that cycling can present for migrants.

The interview was approximately 55 minutes long. A total of 10 open-ended questions[3] were prepared prior to the meeting, covering topics related to common motivators and barriers to cycling among (women) migrant groups in Denmark[5]. This included questions surrounding issues of community engagement, cultural considerations, and future improvements to cycling infrastructure.

Interview Locations & Rationale

The selection of two interview locations was a deliberate choice aimed at capturing diverse perspectives. Interviews were initially conducted in Tingbjerg, a marginalized housing complex. However, upon finding that many of the women here were not active cyclists, nor trying to be, I was motivated to go a step further. My new objective was then to engage and speak to women in a place who were all voluntarily opting to

[2] See Appendix B for interview questions.
[3] See Appendix C for interview questions.

cycle, and explore their reasoning for doing so. This led me to select bicycle courses in Frederiksberg as a second interview location. The aim was to capture comparable demographic groups in contrasting settings and locations, challenging their varying attitudes towards the bicycle and pathways for integration.

Interview Location A | Tingbjerg

The first round of interviews were conducted in the residential housing project of Tingbjerg, located in the Brønshøj-Husum region of Greater Copenhagen (Figure 1, 2). Constructed between 1950 to 1972, the district owes its modernist design to planner Steen Eiler Rasmussen and landscape architect Carl Theodor Sørensen. The original vision of Tingbjerg was to create a dense, attractive and affordable residential area that brought working-class 'Danish' families to the outskirts of overcrowded Copenhagen. The vision was maintained, and until today, still retains its coherent yellow brick homes, a school, church, community garden, shopping area, green space, and community center. The latter, known as the Tingbjerg Library and Culture House (Figure 3), was built as an urban redevelopment project in 2018 with the intention to facilitate social and cultural gatherings and bond the local community together; essentially, an "urban catalyst" to integration (Arch Daily, 2020; Danish Architecture Center, n.d.).

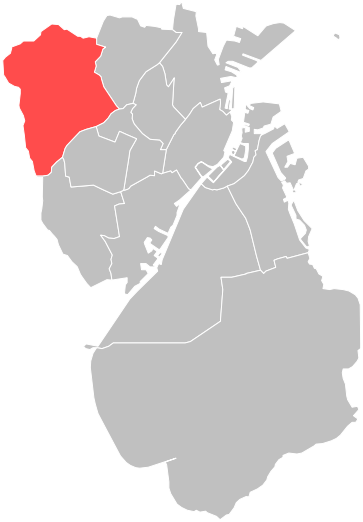

Figure 1 (above). The Brønshøj-Husum region in West Copenhagen, highlighted on a map of the Copenhagen municipalities. Source: Justice, n.d.
Figure 2 (below). An aerial view of Tingbjerg. Source: Schønherr, n.d.

Figure 3. Tingbjerg Library and Culture House (left) located in Tingbjerg. The yellow brick homes (right) give the residential area its unique and well-known aesthetic. Source: ArchDaily, 2020.

Over time, Tingbjerg has developed a 'negative' image amidst escalating discourse concerning immigration, demographic shifts and other issues of integration. By the 1990s, the area experienced a demographic turnover where middle-class, working 'Danes' left the area to make way for more migrant families to move in and take advantage of the affordable housing. These migrant families, specifically of non-Western background, soon became the majority. This has ultimately transformed the image of the neighborhood to somewhere that has become undesirable; culturally (and physically) isolated. As of 2021, Tingbjerg hosts a population of approximately 6,100 residents, with around 72,6% of the population being non-Western immigrants or descendants of immigrants (Indenrigs og Boligministeriet, 2021). The demographic make-up of the population combined with a poor educational background, low income levels, and high percentage of crime has qualified the community as a 'ghetto', based on criteria designated by the Danish government. It has also been consistently named on the government's 'ghettolisten'[4] each year, apart from 2013's list.

[4] The term 'ghettolisten', or 'ghetto list' in English, is no longer in use following the termination of the word 'ghetto' from Danish government and legislation in 2021. Today, the term 'parallelsamfundslisterne', or 'parallel society lists' is used in its place, an all-encompassing term used to classify the different severity of these residential housing areas.

Additionally, Tingbjerg still remains relatively disconnected from its surroundings, failing to achieve coherence with other parts of Copenhagen. Spatially, this falls at the expense of failed municipal plans that were unable to successfully bridge together the neighborhood with the local rail network, nor provide any express bus connections. This is not unique; these 'ghettos' are "often secluded and isolated from the rest of the city, and in some cases there are few roads to and from the ghettos" (Regeringen, 2018; machine translated in DeepL, 2023). Despite these connective failures, cycling access is still fairly well-maintained in the area. Bicycle routes can be found along the main road access of the area (Hareskovvej) leading coherently into the city center, up to Hillerod in the north, or even south toward Hvidovre and Vestvolde. Although the project has taken on different faces since its erection, "the district is still regarded as a cornerstone in modernist architecture and city planning" (Danish Architecture Center, n.d.).

Tingbjerg was chosen as an interview location for a few notable reasons:

- The residential project hosts among one of the densest immigrant populations from a non-Western background in the city of Copenhagen (Statistics Denmark, 2023), aligning with the demographic I intend to investigate in this research.
    - It has been part of the notorious 'ghettolisten' for a total of 12 years, ever since the list's inauguration in 2010. Following this, it has long been considered the third largest 'ghetto' in the country (Grenvald, 2022).
- Tingbjerg's Library and Culture House is home to a migrant women-run establishment called Café Mors Varme Hænder, a cafe that employs women primarily with a non-Western background (Københavns Biblioteker, n.d.). The cafe was founded in 2020 and seeks to create a sustainable and inclusive community of women who have recently moved to Copenhagen, attempting to integrate into the labor market and other forms of Danish life (Tingbjerg, n.d.). This presented an ideal starting point to meet women and develop connections in the area.
- The active presence of existing and developing bicycle lanes in the area, connecting an otherwise secluded area of the region to the rest of Copenhagen and beyond, raises questions of their use. Given the literature on reduced cycling rates among migrant women, it prompts inquiry into whether these cycling lanes are actively utilized and, if not, how else local residents are navigating the region.
    - The isolated nature also brings into question the amount of access and opportunities available here that connect to Copenhagen as a whole.

Interview Guidelines, Themes & Content

To structure my guiding interview questions[5], I first collected demographic information from my participants. This included a demographic description requesting age, occupation, educational background, country of origin, number of children (if any), and which commune they resided in. This was to ensure that proper attributes towards each individual were recognized and noted in the data analysis portion of the research. While this demographic data provides valuable quantitative information, the core

[5] See Appendix E for interview questions.

of the research was still qualitative in nature, focusing more on capturing the nuanced narratives and meanings that participants attributed to their experiences.

As for the content of the interviews, I first pulled from a study by Lubitow et al. (2017) that aimed to focus more specifically on women and minority cyclists by providing the short demographic questionnaire. I then gained insight from an interview study by Hoglund (2020) that poses a standard set of open-ended questions to participants regarding cycling safety among men and women. This includes questions concerning the perception of street safety of the cyclist, what hazards or areas to avoid on the road, and what measures are taken to ensure safety as a priority. Finally, I framed my interviews in the context of accessibility and transport design from a gendered perspective (Al-Hussaini & Al-Ahbabi, 2020) which prompted further understanding of gender-specific care behaviors and tasks, allowing further development of the research topics. The interviews conclude with inquiry into future accommodations for a more inclusive cycling culture.

Recruitment Process

I first visited the interview site in late November 2022, coming equipped with informational posters to recruit women and encourage them to contact me if they met any interview criteria[6]. These flyers were printed and physically displayed for passersby inside the Tingbjerg Library and Culture House lobby, as well as distributed among information billboards inside the actual library upstairs (Figure 4). I then approached a few women working at Café Mors Varme Hænder to inform them of my research target and focus group, as well as establish a preliminary connection before interviews. After learning more about their stories, I inquired if they would take interest in participating in my research, to which I received a positive response. I informed them that I would return to conduct my interviews after the winter holidays.

However, the response to the posters proved bleak and resulted in minimal engagement. Consequently, I undertook a more proactive approach to personally recruit individuals myself and distribute flyers directly once I returned to the site in January. This is what prompted my intercept interviews. Although the posters initially seemed ineffective, I found that they inadvertently played a role in legitimizing my research presence and encouraged participants to delve further into the study, especially as the materials were presented in Danish and English. This allowed them to peruse my research concept, seek clarifications, and establish a level of trust with me prior to engaging in the process.

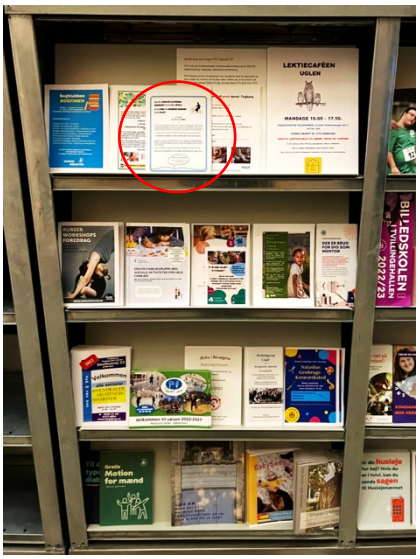

Figure 4 (right). My posters placed among other informational flyers at the Tingbjerg Library and Culture House, January 2023. Source: Author.

[6] See Appendix D for poster. The poster provided a clear description depicting my identity, the nature of this research, and the requirements of being recruited for an interview: being an individual from an immigrant background, and having a relationship to the bicycle in some capacity. The poster encouraged users to contact me if they wished to be interviewed.

Setting the Scene

In the early afternoon of Wednesday, 18 January 2023, I entered the Tingbjerg Library and Culture House alongside a close friend of mine who was able to accompany me in order to facilitate communication between Danish, Arabic and English, if needed (the latter was in presumption of the Middle Eastern demographic we would encounter in Tingbjerg). After explaining my research and requesting authorization from the front desk clerk, we situated ourselves at a table adjacent to Café Mors Varme Hænder in order to gain access to the women working there for the day, as well as to be in eye-shot of passersby that would enter the culture house (Figure 5 & 6).

Figure 5 (left). View of the interior from the café table.

Figure 6 (right). View of the café. The employees were very accessible from this position. Source: Author.

Data Collection & Participant Engagement

Over the course of 6 hours, a total of 14 women were interviewed using the semi-structured and intercept interview approach. Myself and Ida began by approaching idle and unoccupied passersby, offering them a flier accompanied by a short elevator speech explaining my research, its intentions, and the participation requirements. To our favor, each person we approached agreed to participate[7].

[7] It is important to acknowledge the gender and cultural vulnerabilities that arise when attempting to attract individuals who 1) appear to identify as a woman and 2) seem to exhibit visual cues associated with the cultural, religious, or geographic backgrounds found in the MENAPT region, such as the hijab. This approach may not encompass the full diversity of gendered and religious identities within the MENAPT community. This is a sensitive approach, which is why we ensured to first inform the passersby of the research requirements and give them free will to agree or deny first.

A duration of 6 hours was chosen to maximize as much time as possible to both gather and speak with participants, eliciting in-depth conversations and thorough discussion of the proposed topics. Each interview session lasted an average of 25 minutes. The interview process was complemented by detailed field notes taken during and after each interview, capturing participant reactions and other contextual observations that enriched the collected data.

Interview Location B | Røde Kors Danmark & Cycling Training Courses

Created and managed by Røde Kors Danmark (Red Cross Denmark), bicycle training courses are offered as a free-of-charge initiative to adults "with a non-Danish background" around Copenhagen. Considering that "the bicycle is the ideal mode of transportation when getting around in Copenhagen", Røde Kors cites three main motivations and benefits for learning to cycle: it provides a chance to integrate and connect to "the [Danish] tradition of biking", it is empowering, and it can provide a gateway into qualification for certain jobs in Denmark, such as working in home care[8] (Røde Kors Hovedstaden, n.d.). Two-hour classes are provided on a weekly basis, from March to October (or when weather permits), and take place in the districts of Frederiksberg, Vanløse, and Amager Vest. It is also emphasized by Røde Kors that participants without fluency in Danish are still welcomed to the courses.

Along with instruction from both employed leaders and other volunteers, the bicycles, helmets, and other equipment are also provided free of charge. Courses take place in an enclosed, protected environment, often with a small track and barriers set-up to mimic real traffic. As the course is open to all levels, participants learn the basics (balance, maneuverability, proper safety precautions) as well as more advanced notions of cycling in Copenhagen (acquiring knowledge of the rules and signals of the road). Oftentimes, most participants join the course with little to zero prior knowledge of cycling — yet, once they have become comfortable on the bicycle, many of them end up becoming volunteers themselves.

[8] Hjemmehjælpere, or home helpers, are individuals that receive their education in nursing alongside performing care services to residents within their own private homes (FOA, n.d.). Knowing and riding the bicycle is compulsory for this path of education. As these nurses often visit and provide care in many peoples' homes over a short duration of time, they are expected to travel by bicycle in these areas to assure maximum efficiency. As Poulsen and Hansen (2014) reiterate: "...man kan ikke bestride et job som hjemmehjælper, hvis man ikke kan cykle" ["You can't take a job as a home helper if you can't ride a bike"] (p. 3).

This second round of interviews was conducted at the courses in the independent municipality of Frederiksberg, also a part of the City of Copenhagen. Although the classes are also being held in the districts of Vanløse and Amager Vest, Frederiksberg was chosen for the following reasons:

- I was informed by the coordinator, Emma, that the Frederiksberg location has the most participants, with the majority being women from a Middle Eastern background. This would satisfy my ideal target group for my interviews and data collection.
- The strategic location of the municipality has made it an easily accessible point for many of the participants who attend the classes from neighboring districts of Copenhagen. This is especially in comparison to districts like Amager Vest, which are further out and more isolated; the classes do not typically receive as much foot traffic.
- Overall, attending the class is a strategic way to attend a community initiative provided by an organization that weaponizes the bicycle as a tool of integration for individuals new to the country, accessing a large range of backgrounds and preconceived notions about the vehicle.

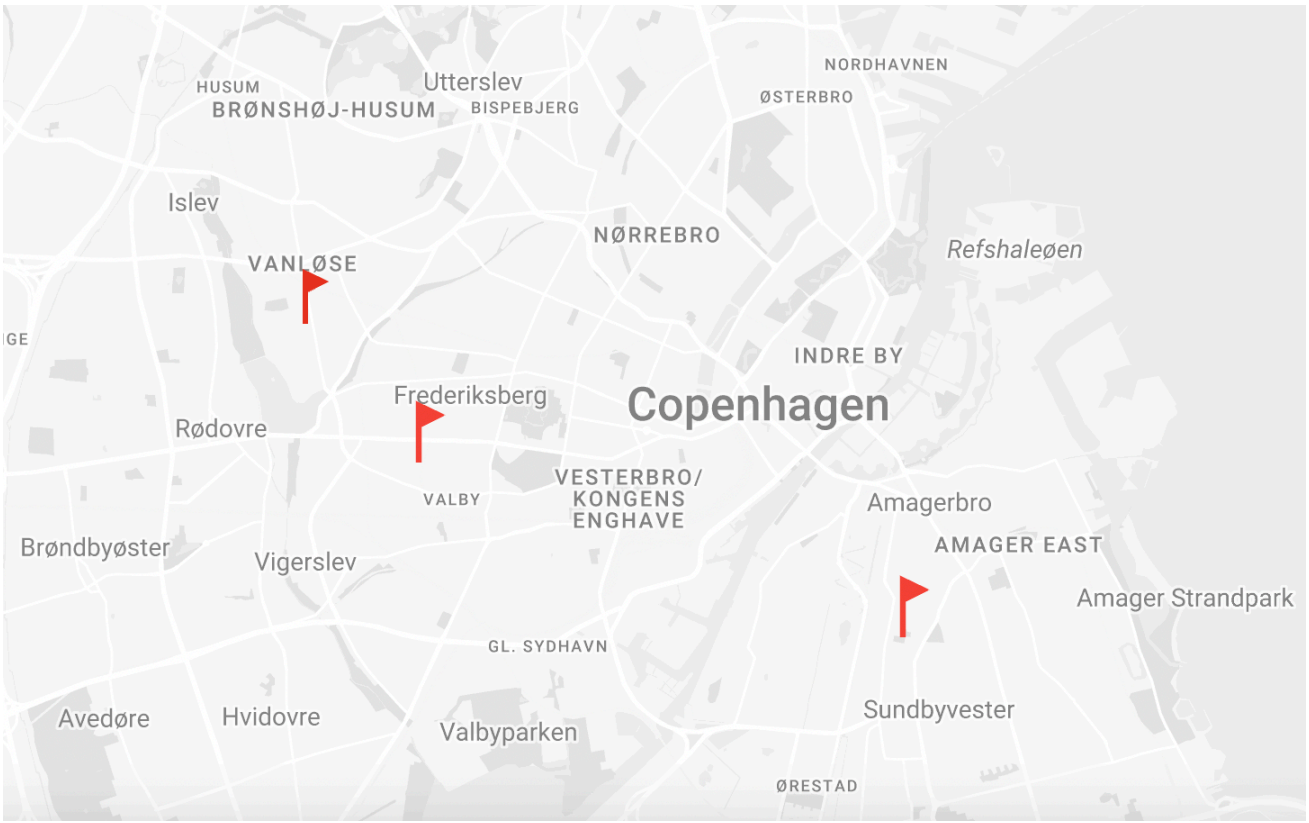

Figure 7. Map of Copenhagen depicting the locations of the bicycle training classes currently being offered through Røde Kors Danmark. Source: Custom Map, created by author using Snazzy Maps.

Interview Guidelines, Themes & Content

Guiding interview questions, including those pertaining to demographic information, mostly echoed the same ones that were used among the first round of participants in Group A. Yet, for this second round, some questions were slightly altered in order to reflect the unique environment of the cycling courses. Many of the questions were still related to cycling safety, street safety, accessibility, and transport design as seen through the lens of gender (Lubitow, 2017; Hoglund, 2020; Al-Hussaini & Al-Ahbabi, 2020); yet, more context-specific questions were included. For example, instead of asking, *where and when did you learn how to ride the bike?* questions were transformed into: *As a general timeline, how often do you come to the class? or What has been your favorite outcome of the class thus far?* focusing on more personal experiences. These questions proved particularly valuable for exploring the relationship between individuals' previous cycling experiences and their motivations for enrolling in the class. Focusing on the driving forces group that actively chooses to participate in cycling constituted a pivotal aspect of analysis.

Recruitment Process

I first became aware of the cycling courses through an Expats in Copenhagen Facebook group. After navigating the website of Røde Kors and becoming more informed on the courses, I reached out to the provided contact information of a few coordinators and eventually got in touch with "Emma", the Frederkisberg class coordinator, who graciously invited me to attend as an onlooker and interviewer on behalf of my research.

Similar to the recruitment process for participants in Tingbjerg, I used the same informational posters to show to the women and explain my research and background. Additionally, the same research criteria was used: 1) being from an immigrant background, and/or 2) having a relationship to the bicycle. Rather than distributing or displaying these somewhere, however, the flyers were simply used as an informational sheet to introduce to the women who were already on-site. All women participants were given the opportunity to read the flier and consent to the interview before proceeding.

Setting the Scene

I traveled to Frederiksberg on Wednesday, 10 May 2023 to attend the bicycle training course from 15:30-17:30, arriving one hour early. Emma, who was expecting my arrival, introduced me to both the volunteers and the students present. Collectively, we explained my research and my intentions, which was received graciously. All of the participants cycling that day were women, and all students remained for the entire duration of the class. As time progressed, the students became more at ease with my presence and allowed me to observe their skills and capture photographs. Moreover, Emma emerged as a pivotal connection for expanding participant recruitment. She even facilitated introductions between me and women who had previously been students in the class, offering the opportunity to reach out to them for additional inquiries if necessary.

Data Collection & Participant Engagement

The class took place on a small, intimate back lot adjacent to a primary school, where participants could freely attend not only to cycle, but to converse and join a shared collective. Recognizing my role as an outsider, I approached the situation with consideration for the ongoing activities. To ensure respectful engagement, I chose a passive approach, positioning myself on a bench adjacent to the cycling track. This allowed the women to approach me at their convenience during breaks, ensuring that the interviews were conducted without disruption to their class participation. This not only enabled a seamless flow of conversation but also fostered an environment of autonomy, wherein the participants could share their experiences at a pace and time that suited them.

Over the course of three hours, a total of 12 women were interviewed using the semi-structured approach. Each interview session lasted around an average of 15 minutes; however, many interviews were far more extensive as a couple women reached out to me following the course to continue speaking to me. These follow-up sessions, which took place with four of the women, underscores the variance in the extent to which participants are inclined to share information. The addition of these extensive interviews, combined with detailed field notes, observations, and visual documentation, successfully illustrated a clear focus on the environment and active participation of the women involved.

Researcher Positionality

Before proceeding, researcher bias and my own positionality in this research must be acknowledged; it is crucial to recognize the role of pre-existing frameworks in shaping our understanding and perceptions. This is in line with critical feminist geographers Rose (1997) and Domosh (1991) who challenge the various ways in which knowledge is formed and experienced by different groups, signaling clear researcher subjectivity that must be addressed. In feminist geography, this is encouraged in order to understand "the researcher, the researched, and the research context" (Rose, 1997, p. 305). As a researcher, I recognize that my own schema, developed through personal experiences, cultural influences, and my academic background, may have influenced the way I approached this study. These could have impacted my interpretations of data, the formulation of research questions, and the potential biases that emerged throughout the research process.

Throughout the research process, my identity as a young, able-bodied, Lebanese-American woman was made clear to participants. The choice to specify my MENAPT ethnicity was done with the intention to connect with those I interviewed who were from a similar background. This played a pivotal role in establishing a sense of comfort and mutual understanding throughout the research process, where interviewees conveyed a heightened level of comfort and ease while speaking with me. However, this did not negate the fact that I am not a migrant, nor can I cannot personally connect with the plight of being one. Additionally, specifying my identity as a Master student with prior knowledge of urban cycling and transportation planning, as well as having been taught to ride a bicycle freely from a young age, altered my perception of this research. I myself was an avid cyclist while living in Copenhagen from summer 2022 to winter 2023, and have always understood the bicycle to be an engaging, freeing, and empowering tool. I recognize that this may not match the perceptions of other women that I speak to. Yet, despite my efforts, it is difficult to circumvent any potential underlying biases and assumptions.

Case Profile | Copenhagen

Prior to the 21st century, Copenhagen, the capital and most populous city of Denmark, was distinguished by its uniform ethnic makeup. Today, it is emerging as an increasingly more multicultural and sought-after destination for immigrants arriving in Northern Europe. Copenhagen stands as an increasingly popular point of attraction, ranked as one of the top five happiest cities in the world in 2021; Denmark as a whole is ranked as the second happiest country in the world (World Happiness Report, 2021). Today, the city's metropolitan area is home to over 600,000 inhabitants, in which 23% of these are immigrants. While 8% of immigrants come from Western nations around Europe, 15% are from a non-Western background. This recent influx of immigrants eventually birthed the government-issued term 'MENAPT' After Danish, the most common nationalities in Copenhagen are Pakistani, followed by Turkish and Iraqi (World Population Review, 2023).

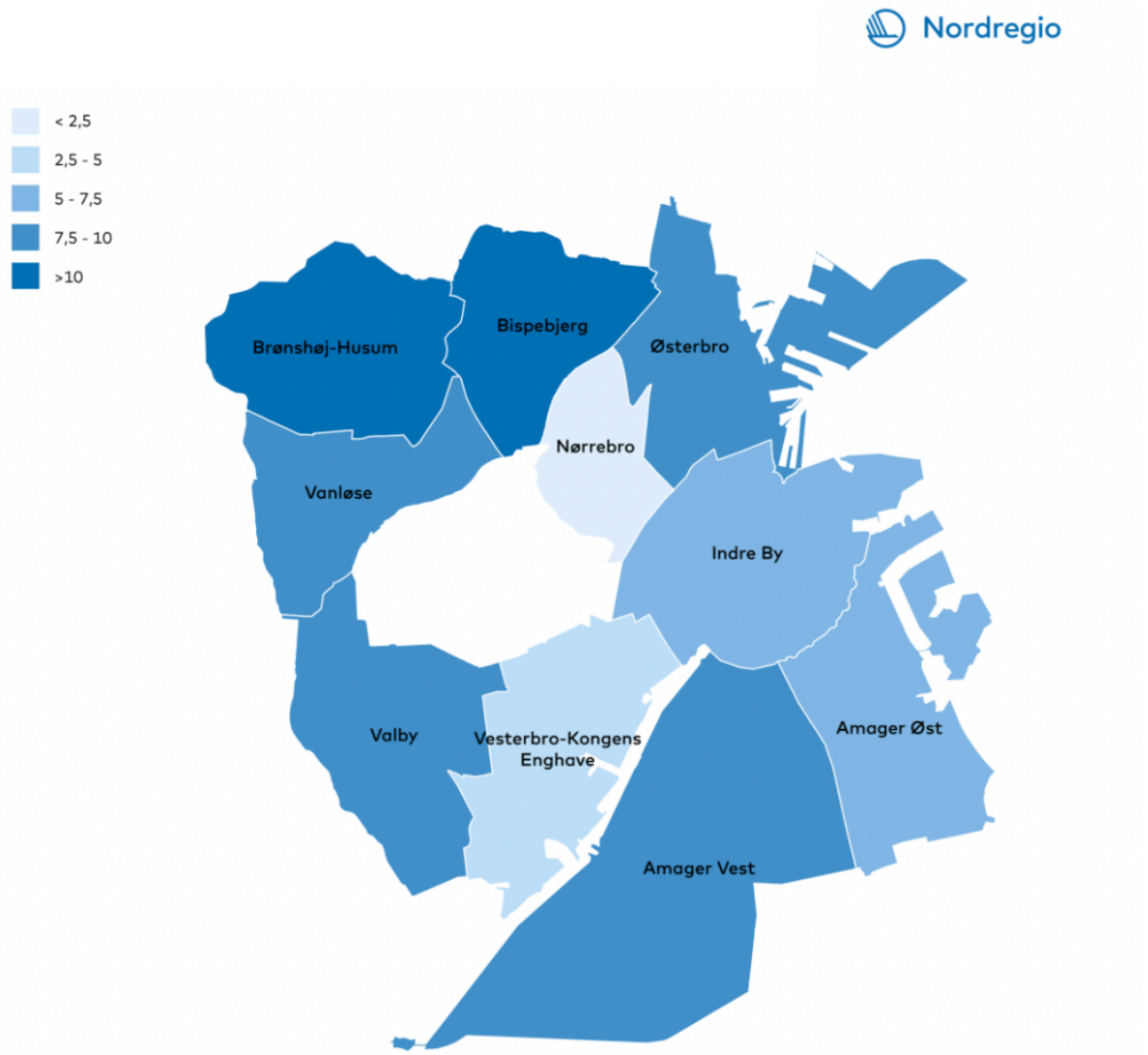

Figure 8. Map depicting the change in share of Copenhagen's non-Western migrant population in Copenhagen. There is a visible trend of spatial segregation, where migrant groups are primarily concentrated in the Northwest regions of Brønshoj-Husum and Bispebjerg. Source: Nordic Council of Ministers, 2017.

These recent immigrant influxes have begun to punctuate Copenhagen as an increasingly segregated city of Northern Europe; particularly since the 1980s, increasing social division between (middle-class) Danes and (non-Western) migrants has developed under the context of varying socio-economic issues, such as proper access to housing or employment (Møller & Larsen, 2015). Copenhagen's municipalities typically experience a certain level of residential segregation (Tunström & Wang, 2019). In a country like Denmark, which has "a strongly regulated housing market that includes a relatively large sector of social housing embedded in a social democratic welfare regime" (Andersen et al., 2000), a pattern of segregation begins to take shape. Following the post-war boom, large social housing projects were erected in the west of Copenhagen; this contributed to a sectoral segregation based primarily on socio-economic status, and eventually, on ethnic identity and marginalization. This has resulted in both metropolitan and district-level population shifts, now comprising more intergenerational and intercultural groups. Today, this is evident in the residential and spatial segregation between advantaged districts in the inner-city (i.e. Vesterbro and Indre By) and more disadvantaged, migrant-dense districts in Western Copenhagen (i.e. Brønshøj-Husum and Bispebjerg) (Stonawski et al., 2021). Increasing polarization like this typically results in unequal access and development to opportunity, mobility being one of those.

Cycling Culture in Denmark

In Denmark, the modern bicycle rose to prominence in 1880 and became a popular symbol of equality and freedom by the 1920s and 30s (Haustein et al., 2019). By the 1950s and 60s, however, the automobile had taken over major European cities and infrastructure began to accommodate the car over the pedestrian and cyclist. This resulted in the bicycle's popularity abruptly declining; according to the Dutch Bicycling Council (2006), the share of bike trips in Danish cities fell by two-thirds, from an average of 70% bike trips in 1950 to an average of 30% in 1975 (as cited in Pucher & Buehler, 2017). Following years of city plans to accommodate the automobile via roadway expansion, parking supply, and additional urban sprawl, a massive public upheaval soon propagated policy reform from car-oriented to human-oriented transport. Thus, the beginning of the 1970s called for a movement towards prioritization of the pedestrian and the cyclist on the streets, mostly spurred by insufficient funds to work on any larger transport projects (Haustein et al., 2019). Yet, with hazardous environmental and safety impacts of the automobile becoming an imminent threat, policy reform worked to discourage automobile use by imposing restrictions, higher taxes, and initiating a plan to pave the city in bicycle lanes. Today, Denmark is at the forefront of cycling infrastructure policy, with Copenhagen considered to be one of the most bicycle-friendly cities in the world (Pucher & Buehler, 2008). The city also has plans to become the world's first carbon-neutral capital by 2025, further spurring its environmental agenda (Københavns Kommune, 2017).

It is very common — and a rite of passage, even — for children raised in Denmark to begin learning to cycle at a young age, often around 2 or 3 years old (Denmark.dk, 2023, Knuttgen, 2013). Learning typically begins on balance bicycles with no pedals, before graduating to one with pedals once having gained enough confidence (Denmark.dk, 2023; Kristensen & Bendix, 2013). This extends into not only socialization, but in pedagogy; from kindergarten, children are often already expected to know how to cycle. This is then complemented by education on rules of the road, safety, traffic signals, other road users, proper maintenance of the bicycle, and other good cycling habits (Kristensen and Bendix, 2013; Ruby,

n.d.). The expectation is that this habit is carried with the children into their adult years, perpetuating a bicycle-oriented society. In this sense, the bicycle itself has been adopted as far more than merely a transport method, but has become a cultural symbol and way of life (Cycling Embassy of Denmark, 2021). Numerous cycling and mobility reports by the Cycling Embassy of Denmark, Københavns Kommune, and official government-run tourist websites have published documents over the course of the 2000s, detailing travel patterns and behaviors in the city. Early-on, cycling objectives were at the forefront of policy planning and social perception: the particular report The Bicycle Account was originally created to promote cycling, setting city-wide goals to increase biker ridership (Haustein et al., 2019).

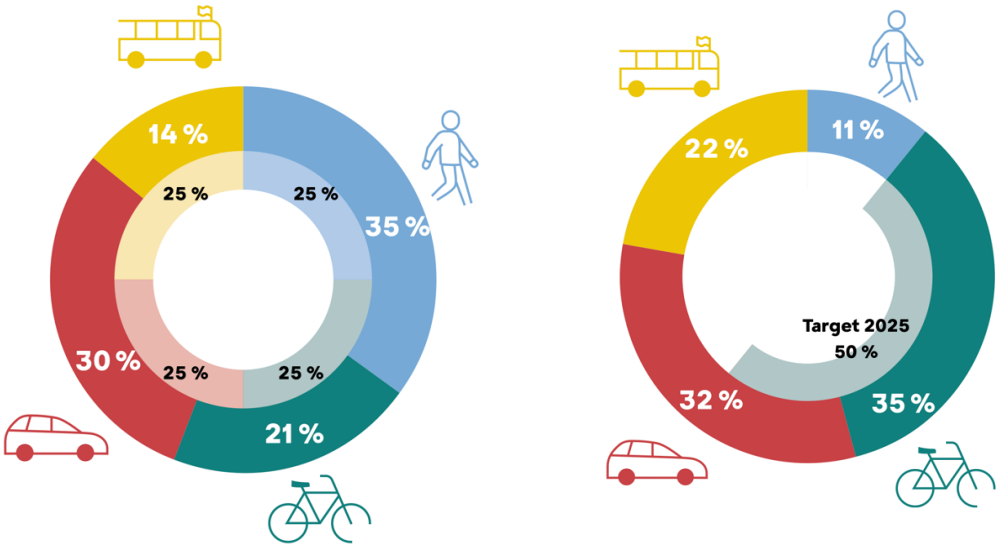

Figure 9. Left: As of 2021, 21% of all daily trips in, from, and to Copenhagen are done with the bicycle. The faded, inner circle represents the projected targets for 2025. Right: For education trips in, from, and to work or school, the projected target of 2025 is expected to go from 35% to 50%. Due to the COVID-19 pandemic, these numbers are a bit lower than they were in the years preceding 2020. For example, from 2020 to 2021, total bicycle share of overall trips in, from, and to Copenhagen decreased by 5% (Københavns Kommune, 2022).

Through various policies of land-use and infrastructure innovation, the bicycle has been made to be the most time-efficient and low-cost option of transport (Pearson et al., 2022) when getting around Copenhagen. Even so, it is often much easier to commute by bicycle than it is by car; in many ways, this was an intentional planning choice (Denmark.dk, 2023). For one, the heavy sales taxes on gas and new car registration or license fees, as well as high rates of hourly parking fees in the city center, indirectly encourage the rise of active transportation (Østli et al., 2021). Of course, the city's cycling network does not come without safe, effective and unique infrastructure (Haustein et al., 2020): a raised curb is separated from both the street (car traffic) and a sidewalk (pedestrians), presenting a straight one-way route on either side of the street. This simple yet intuitive infrastructure allows for a smooth cycling experience, where each actor in the urban space — pedestrian, cyclist, and driver — knows their place. The unique curbs, paved cyclist paths, and a priority placed over the car has thus encouraged an "attractive" mode of transport that actually encourages its users (Parkin & Koorey, 2012; Chatterjee et al., 2013). In fact, a 2008 study analyzing the reasons for such widespread success of cycling culture in Danish (as well as German and Dutch) cities noted that cycling has transformed the country on the basis of implementing seven key policies and measures:

1. Extensive systems of separate cycling facilities
2. Intersection modifications and priority traffic signals
3. Traffic calming
4. Bike parking
5. Coordination with public transport
6. Traffic education and training
7. Traffic laws (Pucher & Buheler, 2008, p. 512).

The efficacy, integration, and coherency of the bicycle routes in the city have paved the way for a comfortable and desirable cycling experience, appealing to a wide range of users from all demographics. As of 2023, Copenhageners cycle over 1.44 million kilometers per day (Thoem, 2023); the city population owns over five times more bikes than cars (Københavns Kommune, 2022a), and in Denmark as a whole, 9 out of 10 people own a bicycle (Denmark.dk, 2023). In Copenhagen, cycling infrastructure pans out over 388 kilometers of cycle tracks, 33 kilometers of cycle names, 65 kilometers of green cycle routes, and 60 kilometers of cycle superhighways (Figure 9) (Kobenhavns Kommune, 2022a).

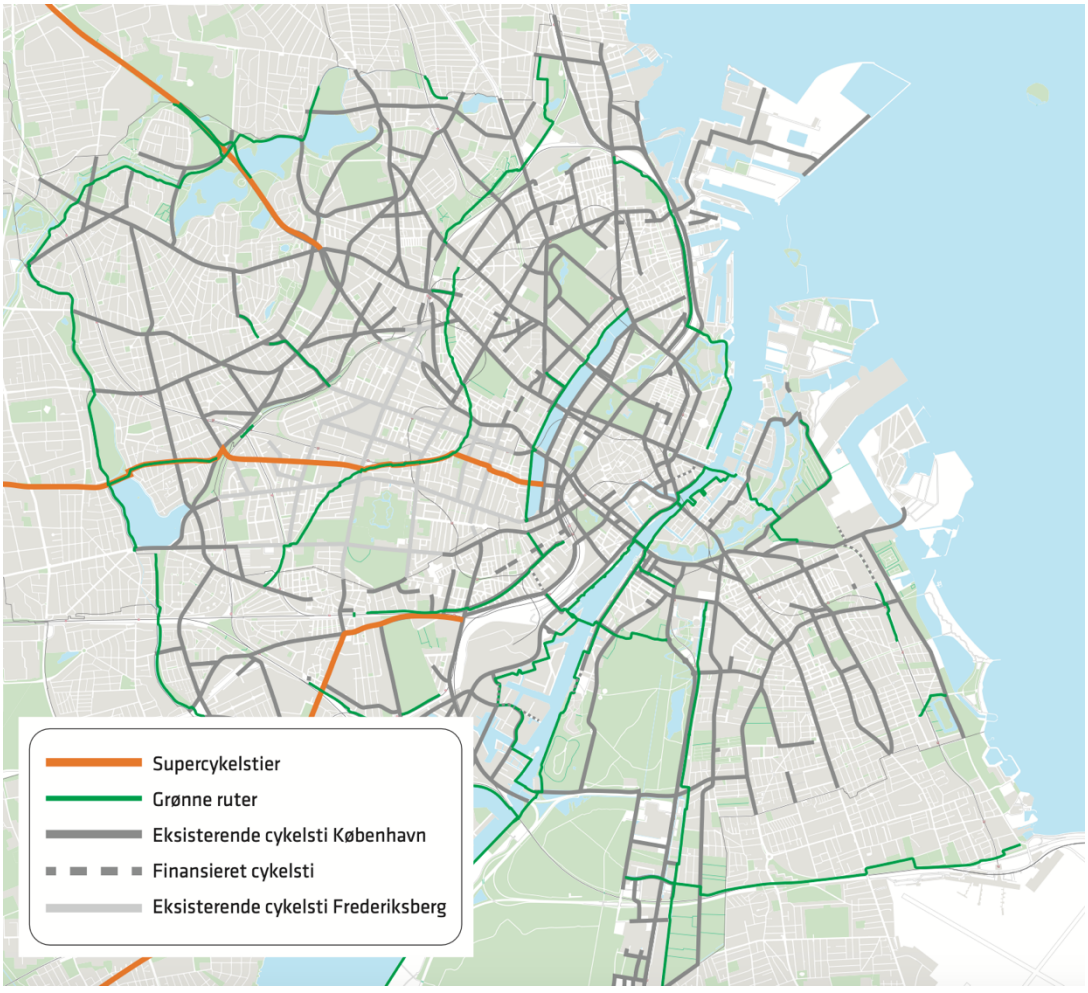

Figure 10. Map of all cycle routes in Copenhagen. English translations of legend, from top to bottom: Super cycle highways, green routes, existing bike lanes in Copenhagen, funded cycle paths, existing bike paths in Frederiksberg. Source: Københavns Kommune, 2017.

Danish cycling culture places a high emphasis on cycling equality, supposedly serving every member of society no matter one's gender, age, or socioeconomic background. In fact, the gender balance of cyclists is fairly even; 53% of women in Denmark ride bikes (Cycling Embassy of Denmark, 2021), which is not typically the norm when considering the cycling gender gap theory. However, it is noteworthy that these overarching ideas of equality predominantly refer to Danish natives, and statistics often fail to mention the reality for migrants who do not come from a strong cycling culture (Baek et al., 2016). This is demonstrated in a study by Haustein et al. (2020), who utilized data from the National Travel Survey (NTS) and demographic data from Statistics Denmark to analyze mobility trends in Copenhagen and explore the causal relation between immigrant origin and cycling habits. The study uses the independent variable of ethnic origin and the dependent variable of cycling behavior to determine that non-Western migrant women in Denmark are often less likely to cycle. This was complemented by the idea that "living in areas [enclaves] with high shares of non-Western immigrants has a negative effect on cycling, as the national cycling norm is probably less salient here" (p. 16).

An Overview of Danish Immigration Policy

In order to contextualize the role of the bicycle in this study, it is vital to understand a timeline of Danish immigration policy. Historically, Denmark has been a religiously, ethnically, and linguistically homogeneous country, with moderate immigration flows from other Nordic and Western European countries (Dora & Erdogan, 2021). Wide-scale foreign immigration to the country did not grow until the 1960s, when a shortage of labor in surrounding countries and other postwar immigration movements brought the inauguration of the workforce-immigration program (Stonawski et al., 2021). These migrants were predominantly from Eastern European countries, Turkey, and Pakistan. However, migrants moving to the country during this time were arriving as laborers with guest worker status, therefore operating under the assumption that they would be temporary residents and depart the country after a few years (Nannestad, 2004). Additionally, the amount of migrants entering the country was not sizable enough to affect the direction of Danish immigration law (Andersen & Bjørklund, 1999). By the 1970s, however, the country was hit with the repercussions of the oil crisis and thus limited employment opportunities. This resulted in an immediate halt on labor migration to Denmark from members of countries outside the EEC (European Economic Community), which comprises countries predominantly in Western Europe (Husted et al., 2001). Although this policy was soon lifted and the country released "one of the most liberal immigration laws in Europe" shortly after (Olwig and Pærregaard, 2011), tensions between migrants and locals were on the rise.

The mid-1980s saw the true beginnings of a vast influx of refugees coming from MENAPT regions (European Commission, n.d.), where the number of refugees in Denmark nearly quadrupled over the course of 1983 to 1986. In fact, non-Western immigrants and their descendants have contributed to over half of the country's population growth in the last five decades (Stonawski et al., 2021). This introduced the beginnings of deep political polarization following the Danish prime minister's first clear reference to "racial tensions" that could threaten the culture of the nation-state (Jensen et al., 2011). At this point, an idea had been planted that immigrants were a threat to national identity, job opportunity, social security, and delinquency (Andersen & Bjørklund 1999). The ripple effects of this came shortly after; by 1985, the

Social Democratic government's views began to parallel those of the center-right, and both parties agreed that the formerly liberal immigration laws must be amended. The government argued that there was an unprecedented number of non-Western refugees arriving to the country that were not achieving full integration into Danish society — in fact, there was no law that specifically addressed the issue of systematic migrant integration by means of language, job, religion, and culture until 1999 (Mouritsen & Jensen, 2014; Andersen & Bjørklund, 1999). Eventually, the end of the 1990s and the beginning of the 2000s saw immigration become one of the most hotly debated political issues in Denmark.

Denmark currently assumes the title as one of the most equal countries in the world (Denmark Ministry of Finance, 2021, p. 112). Even on a global scale, the country is traditionally known to be exceptionally tolerant, progressive, and historically, has always served a humanitarian role in international war intervention (Moore, 2010). Moreover, the Danish welfare state is considered to be one of the most comprehensive and egalitarian of its kind, providing equal rights to free healthcare, education, and unemployment, disability or old-age benefits (Moore, 2010; Olwig and Pærregaard, 2011). However, as the history of immigration policy reveals, there remains a gap between principle and practice. Today, Denmark is considered to have one of the harshest immigration laws in Europe. Numerous sources point to Danish public and civil life being "not inclusive towards immigrants" as they are targeted by public policy makers (Denmark Ministry of Finance, 2021; Mouritsen & Jensen, 2014; Jensen et al., 2011). In particular, women are at even higher risk given their limited healthcare and job benefits. According to Jensen and Thomsen (2013), the policies are built upon "ethnic exclusionism", an idea that has gained traction upon increasing normalization of extremist right-wing political parties. This has "pressure[d] citizens to lines of reasoning they otherwise would have ignored or paid less attention to" (p. 822). Today, policies are not only making migrant's lives in Denmark harder to maneuver, but they are also preventing more from entering the country altogether. Among these policies include cutting migrant social benefits by 45% (Transportministeriet, 2018) and ceasing acceptance of asylum claims (Garvik & Valenta, 2021).

Results

This section presents the findings of the research, highlighting insights from various data sources and methods. The results are broken down into three major parts: first, I provide an overview of the document analysis, policy and reports; second, I recount the details of the informant interviews; third, an overview of the interviews with migrant women.

Document Analysis Findings

Part 1 | The Rise of 'Ghettoization' in Denmark

In order to understand the physical, social and cultural isolation experienced by migrants in Copenhagen, an overview of Danish housing policy and residential segregation must be introduced. Although the term had floated around 19th and 20th century Copenhagen, mainly referring to concentrations of Russian-Jews coming to the city, it did not take on its modern-day meaning in the Danish context until the 1960s. As mentioned, 'temporary' workers of non-Western origin began to seek refuge in subsidized public housing units; by the 80s, they had reached their highest concentrations at the time. This eventually spurred the growth of a dual housing market in Copenhagen, where supply and demand imbalances, gentrification, government policies that prioritized luxury housing, and income inequality resulted in 'enclaves' of particular groups in social housing units.

With more immigrants coming to Copenhagen, as well as 'temporary' immigrants becoming 'permanent' ones, concern began to stir among Danish politicians. In turn, the term 'ghetto', although met with skepticism, appeared as a way to speak toward social housing with high numbers of immigrants. In the 2001 general elections, Venstre (the Conservative Peoples' Party of Denmark) and the Social Liberal Party took power; this coalition government pursued center-right policies, with emphasis placed on immigration policies as a political incentive to handle tensions that had emerged from dense immigrant zones. This is when the term 'ghetto' took on a deeper connotation, beginning to overtly refer to Muslim and non-Western individuals from the Middle East and North Africa as an imminent threat (Jønsson and Petersen, 2013). Today, "these [ghettos] are statistically the most deprived areas in the country" (Poulsen & Hansen, 2014, p. 2).

Policy Paper (2004)

The term 'ghetto' was used in official Danish policy legislation for the first time in the 2004 paper 'Regeringens strategi mod parallelsamfund' (English: 'The government's strategy against parallel societies'). The paper, although it does not necessarily grant official policy use to the word 'ghetto', critiques the formation of isolated immigrant conglomerations from non-Western countries (Regeringen, 2004) forming in social housing groups around Copenhagen. It attempts to make sense of 'ghettos', accrediting their existence to strong formations of ethnic ties, the pursuit of subsidized housing and social benefits, challenges in accessing the private housing market as a non-citizen (p. 14), and most central to this research, a lack of access or education about forms of active mobility, such as the bicycle. To combat

'ghettoization', the government draws on five overrepresented groups that could signal the presence of a 'ghetto':

1. High proportion of adults on social benefits, with little connection to the labor market
2. Low levels of education
3. Abundance of social and subsidized housing, with over 2,000 residents to an estate
4. Distorted migration patterns, where more 'resourceful' people move out and less 'resourceful' people stay
5. Lack of private business and investment, namely due to not having the resources or the appeal to be invested in (p. 15)

Based on these pointers, the paper later identifies 8 residential areas across Denmark that could be "possible ghetto areas" (p. 16), distinguished by two factors: 1) percentage of migrants residing in the area, and 2) percentage of those on social welfare benefits. All areas indicated in the paper, apart from one, have over 50% majority of non-Western migrants and/or those on social welfare. This begins to perpetuate a narrative that structural issues are being 'brought in' by large concentrations of migrants, alluding that the 'ghetto' and those living within it serve as a barrier to the efficiency of the country's welfare state as a whole.

This was reinforced by the strategies and rhetoric of the government at the time; preceding the publication of this paper, Fogh Rasmussen addressed the country in an annual New Year's speech where he detailed issues of immigrants and integration in 'ghettos'.

> "Many years' failed immigration policy has created immigrant ghettos, where men are unemployed, women are isolated and families speak only the native languages of their homeland. Their children grow up without really learning Danish. Some are influenced by hardened criminals. They come to mistake Danish liberal-mindedness for lack of consistency. Danish freedom with a vacuum. Danish equality with indifference. And they view Danish society with contempt. The formation of ghettos leads to violence, crime and confrontation [...] They must be made to understand and respect the values on which Danish society is built" (Rasmussen, 2004).

The speech, similar to the policy paper, promotes a link between immigrant behavior (i.e. a disregard for Danish values) and the rise of ghettoization in Denmark, labeled as a threat to society. In turn, immigrants and their homes in the 'ghettos' are connected to a policy-wide issue, signaling a need to create more laws aimed at integrating these migrants through Danish education, language, and conduct.

Policy Paper (2010)

The 2010 policy paper 'Ghettoen tilbage til samfundet: Et opgør med parallelsamfund i Danmark' (English: The ghetto back to society: A reckoning with parallel societies in Denmark) catalyzes integration procedures among non-Western immigrants, linking ideals of Danish society (cited as: respect for the law, democracy, responsibility for the common good, equal opportunity for both men and women, and a general sense of societal trust) to a standard blueprint of behavior expected among individuals in

Denmark. 'Ghettoization' is framed as a consequence of immigrant enclaves, and insinuates an "us" versus "them" rhetoric. The "framing of identities and characterizations [of others] establishes the boundaries, dimensions, and intensity of a conflict", in which these self-identifying descriptions of "us" versus the other, "them", is assigned to shift attention and assign blame to a particular group (Wondolleck et al., 2003, p. 207), distinguishing each party involved and placing them on a hierarchy.

Successor Løkke Rasmussen's opening address to the Danish Parliament echoes ideas mentioned in the 2004 policy paper; i.e., addressing Danish values that have not been adequately upheld by migrants. Rasmussen calls the 'ghettos' "black spots…on the map of Denmark…where these fundamental Danish values obviously no longer are valid" and where "the problems are linked to particularly deprived housing areas. Areas called ghettos in our everyday language" (Rasmussen, 2010). Here, the 'ghetto' becomes framed as a spatial, cultural, and economic issue based on physical and cultural isolation. The solution proposed is to implement heightened and active police presence in the 'ghettos', as well as government investment allocated towards reintegrating the ghettos into society.

The 'ghettos' themselves, defined as isolated places that are both uninviting and unattractive in their physicality, are deemed an estranged concept that has no place in Danish society — areas where "there is no natural exchange" between the neighborhood, the residents, and the rest of the city (p. 9). In order to alleviate this, the government proposes a comprehensive plan for integration initiatives — "in areas where Danish values do not have a firm foothold, ordinary solutions will be rendered completely inadequate" (Rasmussen, 2010). Integration efforts called on increasing migrant attendance in primary education and daycare, language classes, as well as readjusting the ethnic composition of social housing, discouraging reliance on social welfare benefits, and limiting the annual number of non-Western migrants that enter Denmark.

Whereas the 2004 policy paper focused on alleviating the socioeconomic disadvantages of spatially segregated non-Western migrants, the 2010 policy paper places less emphasis on residential segregation and more on the general "predominance of immigrants and descendants from non-Western countries" that has taken over Denmark as a whole. Structural problems surrounding the 'ghettos' are more so blamed on ethnicity, putting into question what it means to be Danish.

> "We must transform these areas so they become an integral part of Danish society…high concentration of immigrants and descendants from non-Western countries must be reduced. This is crucial to ending parallel societies. It is crucial for integration" (Regeringen, 2010, p. 5).

Here, the term 'ghetto' is finally defined and institutionalized as a term coined within law; a social housing estate can be deemed a 'ghetto' and even make the government's 'ghettolisten' (English: 'ghetto list') if it follows at least two out of three of these criteria (although the underlying definitions were altered slightly in 2013, 2018 and 2021):

1. > 40% of inhabitants must be unemployed or without an education background
2. > 2,7% of inhabitants (over the age of 18) must have a criminal background
3. Proportion of inhabitants from a non-Western country (or a descendant of a non-Western country) must exceed 50% of the residential unit's population

This newly coined definition legitimizes the attribute of ethnicity into law, insinuating that unemployment, crime and ethnicity are intrinsically tied and are often found existing at once, in the same place.

The 'ghetto list' has often been critiqued for perpetuating stigmatizations and stereotypes of the 'ghetto' populations, thus hindering social integration, further segregating residents, and implicating these areas as 'unliveable', potentially leading to decreased property values and difficulties for residents in selling or renting their homes. Additionally, focusing on neighborhoods as a unit of intervention may overlook the root causes of social challenges, which can affect individuals regardless of where they live. Policies may also not adequately involve the affected communities in the decision-making process, which can lead to a lack of understanding of actual needs and preferences. Furthermore, the policies derived from the 'ghetto list' may not address underlying systemic issues and, as a result, may have limited long-term impact on improving the neighborhoods' socio-economic conditions.

Policy Paper (2018)

The preceding sections have been thoroughly examined in order to facilitate a comprehension of the momentous shifts in policy, augmentation of government powers, and escalating discourse that garnered considerable traction during 2004 and 2010. In light of this context, the timeline can now be fast forwarded to one of the most recent documents, published in 2018: 'Ét Danmark uden parallelsamfund: Ingen ghettoer i 2030' (English: 'A Denmark without parallel societies: No ghettos in 2030').

Now, more than ever, Danish national identity and its safeguarding for the future are subject to critical inquiry. The document gives sizeable attention to the changing ethnic composition of Denmark, which has increased tenfold since 1980. It elaborates on concerns related to cultural differences, particularly highlighting matters concerning gender equality and women's rights (p. 5). Additionally, it attributes the management of cultural disparities in lifestyle and morals to strict immigration laws and collaborative efforts with EU auspices and law enforcement. These measures have paved the way for a more focused approach on the existing immigrants and their impact in Denmark. While numerous sentiments echoed in this document bear resemblance to previous discourse (such as the reference to 'ghettos' as "holes" on a map), its primary focus lies in advocating the "politically and economically" viable solution for the future of the 'ghettos': "a complete demolition of buildings and starting anew" (Regeringen, 2018, p. 14). This time around, the 'ghetto' is framed as something nearly unsalvageable and beyond repair, where no

matter the form of its existence, it would still be "a threat to [Danish] modern society" that requires state intervention (p. 5).

> "There is only one way. Ghettos must disappear completely. Parallel communities must be dismantled. And we must make sure that new ones don't emerge. Once and for all, we must tackle the huge task of integration, where immigrants have not embraced Danish values, and isolate themselves in parallel societies. Denmark must continue to be Denmark" (p. 6).

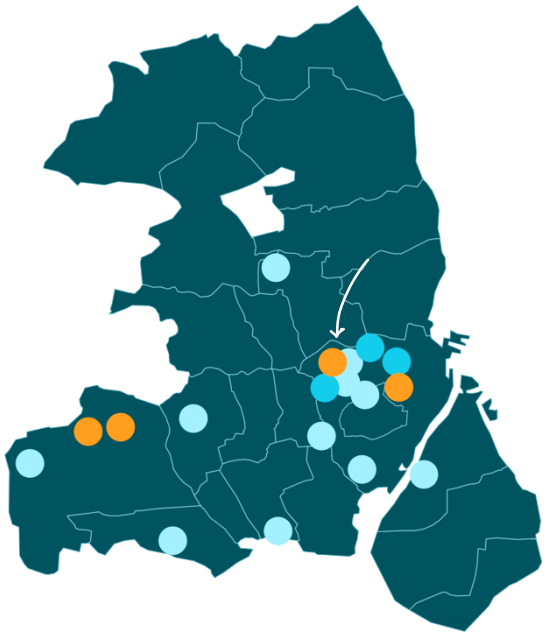

Figure 11. Map of Greater Copenhagen featuring a geographical distribution of 'ghetto' and 'vulnerable housing' identification points. The orange dots represent the 'hardest' ghettos, while the dark blue represents 'ghetto areas' and the light blue signals 'vulnerable housing areas.' Tingbjerg is one of the 'hard ghettos', one of the few of its kind in Copenhagen (Regeringen, 2018).

The definition of 'ghetto' begins to change, and new terms are introduced: vulnerable areas, hard or severe ghettos, and parallel societies. The document narrows down updated criteria:

1. Proportion of inhabitants from a non-Western country (or a descendant of a non-Western country) must exceed 50% of the total population
2. > 40% of inhabitants (aged 18-64 years) must be unemployed or without educational background
3. > 2,7% of the population (over the age of 18) must have been convicted of crime
4. > 60% of inhabitants (aged 30-59 years) must be without a higher education
5. The area's average gross income (among those aged 15-64) must be < 55%

(Regeringen, 2018, p. 11).

In order to be a 'ghetto', a housing area must fulfill two of the three original ghetto criteria (refer to number 1, 4, or 5), or it must have a share of over 60% of non-Western migrants as its only criteria. The government has also made plans to reduce this ethnic composition down to 30% by the year 2030. These are perhaps the clearest example of how the 'ghettos' have been "ethnicized."

A 'vulnerable area', put in place as a less severe version of a normal 'ghetto', only has to satisfy two out of five of any above criteria (1, 2, 3, 4, or 5), while a 'severe ghetto' must fulfill all of the above criteria for four years in a row, and is further subject to redevelopment plans, housing re-compositions, and other integration plans.

The term 'ghetto' had continued to be used as a legitimate policy term in Denmark for two decades, up until its recent termination in 2021 after it was deemed derogatory to marginalized communities.

What About Mobility?

Although the documents shed light on the spatial realities and government-led integration plans for migrants in Copenhagen, there was an absence of comprehensive plans of education or training programs that address integration via mobility initiatives. Each document was scanned for any mention of the words mobility, cycling, connectivity, transport, infrastructure, and bicycle lanes, yet minimal information was found. This is particularly detrimental for assimilation, considering the 'ghettos' are already fairly isolated from the broader city and lack the appropriate connectivity measures.

For instance, in the 2004 document, there is a clear mention of the isolated nature of 'ghettos': "Many of the most vulnerable ghetto areas are isolated enclaves on the outskirts of cities, and in some cases the distance to the neighboring municipality is less than the distance to the city center … and thus to potential employment and job opportunities" (Regeringen, 2004, p. 40) The document also pointed out that "[integration] strategy must not only bridge the gap between the ghetto and the outside world. It must also build a bridge between the ethnic enclaves … and Danish society" (p. 41). In the 2010 document, isolation is also mentioned as it happens "both physically and socially" (Regeringen, 2010, p. 9) and a passing reference is made to improving local transportation via thorough analyses "of how to ensure coherence with the rest of the city, including analyzing how public transport to the area, can be effectively improved" (p. 10). In 2018, yet another reference is made to the presence of people living "in more or less isolated enclaves" (Regeringen, 2018, p. 5), yet all previous mention regarding plans to initiate better transport connectivity is completely missing.

All these documents have shown virtually no elaboration on specific strategies, proposals, or programs aimed at promoting bicycle usage or educating residents about alternative mobility, raising questions about the prioritization of these issues within the policy discourse. This absence also points to further potential challenges and limitations faced by non-Western migrant women seeking to embrace cycling as a means of mobility and social integration.

Part 2 | Mobility Reports and Cycling Initiatives

It is worth considering that the prior documents may not be of the nature to provide extensive information regarding mobility plans. In order to circumvent this and ensure that a comprehensive assessment of the existing governmental approaches is made, an additional analysis was conducted. This time, analysis was specifically focused on a collection of cycling reports released by Københavns Kommune, as well as from

municipality plans/proposals of Brønshøj-Husum, home of Tingbjerg. This supplementary examination aimed to determine whether or not there was information regarding mobility or transport plans involving 'ghettos', particularly Tingbjerg, to provide an educational approach to this mode of mobility. A certain degree of development plans were expected to be found due to Tingbjerg's status as a 'hard ghetto'; this classification means the housing project must receive rigorous support from the government in the form of major integration and urban development projects. The primary motive was finding out if any of these plans concerned mobility.

The Bicycle Account (2022), the Bicycle Path Prioritization Plan (2017-2025), and the Bicycle Strategy (2011-2025) all outline a variety of statistics, goals, and other motivators that seek to promote and enhance cycling as a way of life in Denmark. The report examines statistics regarding Copenhageners' attitudes toward issues such as bicycle parking, access, and safety on the roads, often providing solutions that work in accordance with the public opinion. These more recent reports are on a mission to propagate Copenhagen's title as "the world's best cycling city" (Københavns Kommune, 2022a, p. 12), with a particular urgency to increase cycling travel patterns following their demise since the COVID-19 pandemic. The recent reports also boast the implementation of new and upgrading cycle tracks, cycle parking, and cycle superhighway projects, the latter as a way to connect peripheral cities such as Roskilde and Gentofte to inner Copenhagen. The reports also focus on building accompanying bicycle parking spots in order to increase comfort and efficiency of cyclers (p. 5). Above all, a dedication to safe and secure cycling is upheld along with the Safe Cycling City campaign, via new policies for speed reduction of automobiles (Københavns Kommune, 2017).

However, these efforts are particularly framed in reference to those who already cycle and are simply looking for more comfortable solutions. The proposed ideas do not necessarily resonate among those who do not cycle or lack sufficient knowledge on the vehicle, which tugs on a sense of irony as the document seems quite consistent on "the benefits of cycling and getting more people to cycle" (Københavns Kommune, 2022a, p. 14). The commune believes that "work[ing] to expand and develop our cycle track network" is the appropriate route if they are " to encourage many new cyclists to get onto their bicycles" (Københavns Kommune, 2011, p. 7). Even further, the report continues to say "every time a new cycle path is built in Copenhagen, the number of cyclists on the route increases by 15-20%" (p. 4). Overall, the bicycle reports fell short on acknowledging more underprivileged categories of non-cyclists, nor making any substantial efforts to accommodate this group.

Finding a redundant theme throughout the bicycle reports, municipality plans from the Brønshøj-Husum region were subsequently studied. The aim was to uncover any kind of extensive efforts aimed towards connecting 'ghettos' or migrants to cycling. First, minutes from commune meetings were examined; in a citizens meeting from 2015, the commune unveiled an action plan to tackle the ongoing "deterioration" of Tingbjerg, emphasizing the neighborhood's need for high-priority effort and urgency. The minutes reiterate how Tingbjerg remains disconnected from its surrounding urban areas, not only in terms of bicycle traffic, but also with public transport links and road connections. The meeting notes emphatically call for "new and upgraded traffic connections that must open up the area and improve accessibility and integration with the surrounding urban areas" (Københavns Kommune, 2015). In another government plan concerning Tingbjerg (2019), Tingbjerg is described as "a complex neighborhood in need of better public

transport" where "the proportion of areas close to [transport] stations is still significantly lower here than in other districts in Copenhagen" (Københavns Kommune, 2019, p. 1).

While analyzing the meeting minutes (2015), a transport initiative project finally came into focus: the "Tingbjerg and Husum Nord" connection project. It aims to address a prevailing challenge: providing a suitable way to safely and conveniently cross Vestvolden, which traverses the canal that runs along the southern boundary of Tingbjerg. The proposal envisioned a way to not only create a bicycle-friendly crossing to improve east/west connections, but also provides a means to "create contact between the vulnerable residential area, Tingbjerg, the Green Cycle Route, the Vestvold Route and the Frederiksundsvej area" (Københavns Kommune, 2015). The connection begins in Tingbjerg, crosses Vestvolden via means of a new bridge, and traverses south along Kobbelvænget to ultimately reach out to areas of Husum Sud, such as a school, a sport, and a primary care facility. This infrastructural connection was intended to promote citizens' use of facilities in the area, fostering connections between two different sides of the region. When this plan was examined further through Bliv Hoert (2018), it was found that the project was officially proposed to the public in 2018, inviting them to vote on the proposal. It eventually received citizen approval, potentially indicating some level of demand for these types of projects.

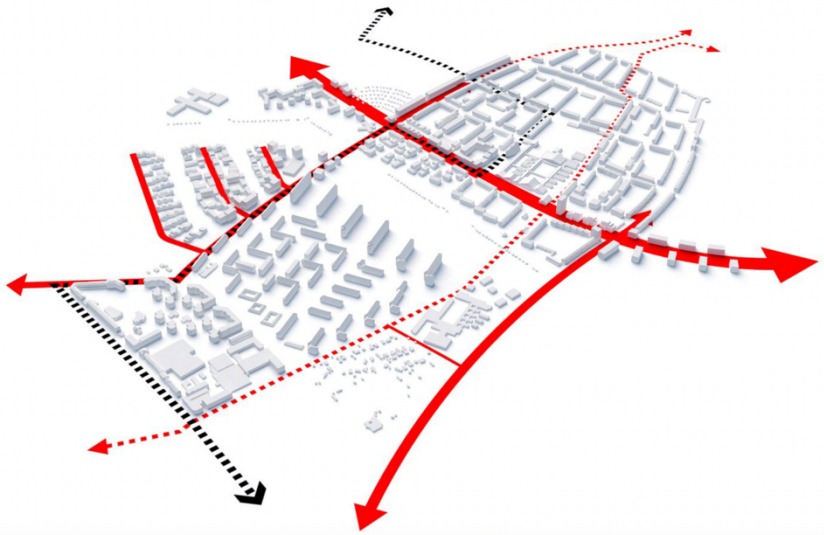

Figure 12. An abstract visual depicting Tingbjerg at the time of the proposal; the solid arrows running perpendicular to the dotted arrows represent the meeting points of the new Tingbjerg-Husum connection project, which predicts steady flows of human and bicycle traffic into both regions. Source: Trafik, Bygge og Boligstyrelsen, 2019.

The 2019 Tingbjerg redevelopment plan (Trafik, Bygge og Boligstyrelsen, 2019) recognizes the initiation of the Husum connection plan, which has since been completed. Unfortunately, I was unable to ascertain the success rate of this new project and its level of utilization; this was a topic I subsequently posed to my interviewees. Although does not explicitly outlined, the report alludes to an emerging number of new or planned initiated infrastructure projects set to take place in Tingbjerg. However, it goes without saying that there is still much to be done, with further transport options needed.

The most recent meeting notes from 2022 mention that funds have been set aside for the creation of additional cycle path connections in and around Tingbjerg. Bicycle parking was also mentioned as another initiative, and new strategies will seek to focus on placing these in nearby schools..

Overall, a thorough investigation into the Copenhagen mobility reports and Brønshøj-Husum municipality plans fell short in assessing how the municipality compensates for this fairly isolated region. Despite the deep analysis, only one plan was identified that involved the creation of cycling paths and bridges for the intention of bridging the 'ghetto' to other areas of the city. While these reports did recognize the value of fostering integrated mobility solutions, they often lacked the specificity and sensitivities needed to address the unique challenges faced by the area's demographics. The minimal proposals for bike route implementation, combined with a scarcity of the promotion of educational programs designed to promote cycling proficiency, further underscores the gap between policy intention and strategies for the integration of migrant populations. The absence of these elements in both general urban development and specific mobility and cycling reports raises questions of the extent to which these aspects are prioritized in policy.

Qualitative Interview Findings

Informant Interviews

This section aims to shed light on the informants' personal insights that transcends the document analysis and migrant interviews. All participant statements are individualized perspectives; experiences can vary, and they are not meant to represent each member of a certain community. The interviews with Ida (Translator, Interview on 16 March 2023) and Emma (Bicycle Coordinator, Interview on 12 March 2023) shed light on their respective lines of work and how they are better understood in the frame of migrant (women) rights.

In her interview, Ida aligned with the legal hardships faced by migrants first entering the country, acknowledging the need for further support by the state. She claims that she "primarily meet[s] with those who are challenged and find it difficult to cope with their new lives in Denmark", and that a majority of these migrants "reside in the ghettos." She often finds it quite difficult to transmit their cultural knowledge and differences to the Danish authorities, especially as she interprets for those who "usually cannot speak Danish or have great difficulty doing so."

Obtaining a comprehensive grasp of the country's laws and rules of conduct demands a certain level of Danish language proficiency, which a considerable number of migrants, in her experience, do not have. Considering that this comprehension becomes essential for effective integration and navigating daily life, she goes on to suggest that language barriers are among the most impenetrable impediments that they face, at least until they achieve a higher proficiency in Danish. In this sense, she says they often "misunderstand the tone and words of Danes when explaining a law, and believe it is an invitation to negotiate their way out of the situation." This barrier also affects their access to opportunity, as "a deficiency in the Danish language, combined with having a heavy accent or a foreign name, can affect [their] ability to get a job." She sympathizes, recognizing that penalties — even those as minor as traffic

offenses — can prevent a person from applying for citizenship, jeopardize their residence permit, and potentially risk deportation. This has become a reality that she has witnessed first-hand, more particularly in recent years given the tightening of immigration laws and policies.

In the context of migrant women, she claims that she frequently witnesses social control as a problem among MENAPT populations, where it is common that women are often heavily monitored and cannot exercise freedom to integrate in the way they wish. Ida comments on the shifting role of men in the family, who often lose social capital when arriving in Denmark and find that they have "lost their status as breadwinners of the family and are no longer the ones in charge and respected." She exhibits that this often leads them to attempt to control the women in their lives, restricting their access outside of the home as a way to regain social control. Emma notes that this dynamic results in women needing to socially and financially depend on their partners as they lose autonomy and authority in the household. In the past, she has seen this happen with men who refuse to invest in their wives' Danish courses which added another layer of difficulty to the process of integration. This becomes even more daunting when considering their constrained resources and limited capital.

This cultural aspect of social control extends into mobility access: both Ida and Emma reported that the social dynamic often observed between migrant men and women stands as a barrier to women's free movement around Copenhagen. In 'ghettos' such as Tingbjerg, this is further exacerbated by the area's minimal public transportation options, compounded by either not owning a bicycle or not knowing how to ride one.

This idea of mobility exclusion was expounded by Emma, who reflected on the moment Røde Kors Danmark reached out to her in 2015, following the influx of Syrian refugees crossing the German-Danish border and settling into Denmark, with an offer to assume the role of head team leader for migrant cycling classes. She knew she wanted to welcome migrants in a manner that could aid their arrival, or as she put it, "to make them become 'activated' to do something that will help them settle in Denmark" (Interview with Emma, 2023). They eventually decided that the answer to this was cycling. Despite her aspiration for more migrant women to take up cycling, she shared an anecdote illustrating how recruiting migrant cyclists provide to be much more challenging than expected:

> "In a lot of these [MENAPT] cultures, women who are learning to cycle are not well-looked upon. It's almost considered shame[ful]. It is hard because most of our students are women from the Middle East. I had a woman come to me once and say 'my friend wants to learn to cycle, she lives just over there' and pointed at one of the houses that overlooks our cycling practice ring. Of course I said, 'sure, she's welcome.' But she said 'no no no; she can't cycle here because her husband and neighbors can see her. Do you have anywhere else in a more private area?' I was shocked. The fear of being perceived by others, being talked about … it prevents them from engaging with society. At least the ones who want to" (Interview with Emma, 2023).

She also remarks on the fact that "when new women join the bicycle training classes, some of their husbands would have the tendency to come to watch the class and interfere, saying: "let me show you

how it's done" or "you should not be sitting [on the bicycle] this way", which limited the women's scope of participation. Having to maintain a modest distance from male volunteers during the training class, or leaving classes early in order to attend to their husbands/families were among other barriers Emma mentioned. Overall, she considers cultural barriers to be among the most difficult to circumvent as she reflects on other (cultural) impediments to integration. For example, not being able to cycle during the holy month of Ramadan — "if you cannot learn how to cycle when it's Ramadan, how can you keep a job?", taking on a heightened attention to (what she considers to be) minor inconveniences such as getting an injury in class, and having to stop early. All of these factors, she claims, are preventing MENAPT women from fully adapting and understanding Danish culture.

Both Ida and Emma remark on the fact that they work with some 'ghetto' residents; Ida connects this again to a cultural, but also spatial, problem:

> "There are too many young girls restlessly walking around the ghettos without proper gathering places. They are considered "too young" to take public transport, but "too immature" to learn how to cycle. Their Danish peers are most often enrolled in clubs and activities that Arabs either cannot afford if they have too many children, or do not have a tradition of spending too much money on the children's activity and hobby. I've heard from many of my clients that their children often feel isolated for this reason, but they do not do much to change it. [They] think it's nice to grow up with so many family members in the same area. Everyone helps take care of you. They have made connections in this way. They feel they belong to something. So why not stick to it?" (Interview with Ida, 2023).

However, many concerns extend past merely cultural considerations, and are rather surrounding a fear of roads and traffic safety: Emma explains that many students "who want to learn to be safe in the traffic here — because the Copenhagen traffic, as you know, is a bit scary and people don't always obey the rules" use this as a motivation to attend the classes, yet still fear the idea of cycling by themselves in the city. Both Ida and Emma largely accredit this to a lack of practice in venturing outside their homes and becoming accustomed to the streets. Emma emphasizes a need to rethink the current state of bicycle lanes in inner-city Copenhagen, in which many are narrow and do not accommodate the freedom to switch lanes without the fear of colliding with larger, cargo bicycles in order to make migrants more comfortable cycling in Denmark.

Moving into a discussion on how to alleviate cultural and societal pressures that stand as an impediment to integration, Ida states that integration could be improved if more education was provided about Danish laws, regulations, and life in Denmark in general — according to her, "we should ask more of [migrant] schools. It must be mandatory to learn Danish. It is a scandal that children born and raised in Denmark speak poor Danish and know too little about Danish culture." She underscores the need to enhance relations between migrants and older Danish people, who seem to encounter the most disparities, and expressed how she believes the prevalence of migrants in home care jobs in Denmark is favorable. Emma agrees, stating "Denmark is in need of a lot of home care workers and not a lot of Danes want to do this work. So what do we do when we grow older? There will be nobody to take care of us. There is clearly a

gap, but not a gap the system is willing to fill. So it has to be up to us, as volunteers, to train the people who do this work, to do this work." Both Ida and Emma reiterate the importance of having migrants, particularly women, become more involved in this type of care as a dual avenue to contribute to society while also enriching their own experiences. Emma envisions the possibility of this care chain to include children who can learn to cycle from a young age — "the course is only for grown-ups, but the idea is: if your mom is here and she's learning to cycle, she can teach her child [to get started] too. We want it to be a chain-reaction. We want integration to start from a young age."

However, when reflecting on the future of migrant cyclists as a whole, Emma laments that besides the efforts she is making now, and irrespective of bicycle infrastructure changes in the future, she does not envision significant progress for the future of encouraging more migrant cyclists. This, she asserts, comes from a fundamental difference in culture: "I don't think there's any real policy changes or improvement we can do because I think it has all to do with culture. And I don't know how to change culture."

Interviews Among Migrant Women in Tingbjerg & Frederiksberg

The following section provides insight into the motivators and inhibitors of migrant women's access to cycle. I pull findings from the two interview locations, separating their results into distinctive categories: Group A represents the commentary of 14 women residing in the social housing project Tingbjerg, while Group B outlines the approach of a collection of 12 women from varying regions of both Copenhagen Municipality and Greater Copenhagen, who all participate in the weekly bicycle training classes provided by Røde Kors Danmark. This results in a total of 26 participants in my research.

This section makes sense of the distinct groups by analyzing varying profiles of the women and their similarities and differences in their approach towards urban cycling. This also highlights both personal reasons and other ideas surrounding their impression of the bicycle as a tool of convenience, freedom, and integration into Danish society; or, rather, as a possible hindrance to convenience, safety and security.

Demographics

While many of the women moved to Denmark at an early age (Group A), others settled here much later in life, only arriving within the last 1-3 years (Group B). Among the total of 14 women who were interviewed in Group A, 50% of them were below the age of 18. This offered unique results, as most of their testimonies and opinions did not reflect that of an adult who would consider a motivation for the bicycle in terms of childcare or employment. Due to the younger demographic of this group, over half of these women identified as students. Around four of the women were employed full or part-time, with one being a stay-at-home mother. One woman was unemployed and searching for work.

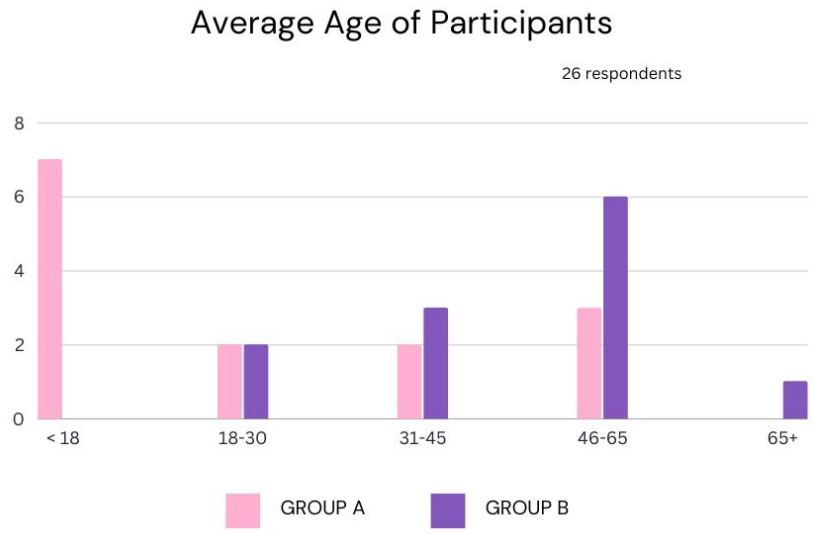

Figure 13. Average age among women from both groups.

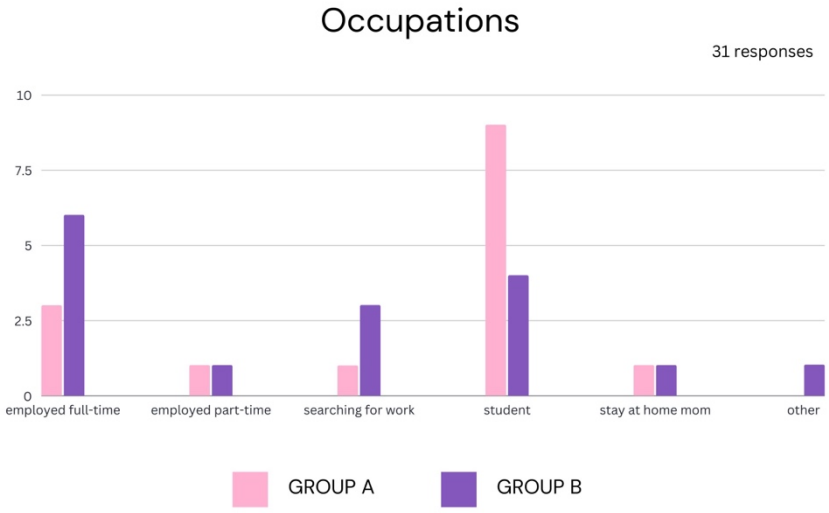

Figure 14. The occupations/other identifying factors of the women. *As some women voted for more than one option, there was a total of 31 responses.*

In contrast, the women in Group B were much older, with an average age of early 40s. This provided a unique perspective into riding the bicycle at a later age. As anticipated, the older demographic also changed these womens' work and study situation. Here, only 4 out of the 12 women identified as students, while the majority were employed full or part-time. A few women were unemployed and looking for work, while one was a stay-at-home mother. Within both groups, care responsibilities were minimally cited as a motivator to cycling.

The research taking place in two areas of Copenhagen — Brønshøj-Husum and Frederiksberg — had an impact on the residences of the participating women. In Group A, it was determined that all the women interviewed in Tingbjerg were also residents of the neighborhood, yet in Group B, women came from varying districts of Copenhagen to participate in the courses. Although four women were from around Frederiksberg, where the courses take place, the majority came from outlying areas such as the Nordvest

region. Yet, most of these women relayed that they had been attending these classes for a while, therefore knowing the area and spending time cycling within Frederiksberg for practice after the classes finished. The country of origin for these women remained consistent with the MENAPT umbrella categorization. In both groups, all participants came from a Middle Eastern or South Asian background. Among the countries represented among respondents were: Pakistan, Iraq, Somalia, Morocco, Syria, Jordan, Turkey, and Lebanon. Other demographic factors such as educational background and care factors remained mostly the same as well. Within both groups, 100% of the women had an educational background varying from high school to Masters level, and over 90% of participants did not have children to take care of.

Daily patterns of mobility

Once the demographic profiles were completed, we then moved into a discussion of mobility. The overwhelming majority stated that their most frequented mobility option was public transport, such as the bus, metro, or S-Tog (Copenhagen's train system). This amounted to a total of 18 votes, or ~70%. This is keeping in mind that some of the women in both groups voted more than once. In Group A, only one woman stated that she uses her bicycle as a daily form of commuting, while in Group B, there were three other participants who cycled daily, having built up enough confidence by participating in the cycling classes over the course of a few months. Otherwise, votes for the remaining two categories (moving around by car and by foot) remained relatively low in both groups. Out of the 26 participants, a total of five votes (~ 20%) were given to the car, while only two votes (~ 7%) were allocated to moving around by foot.

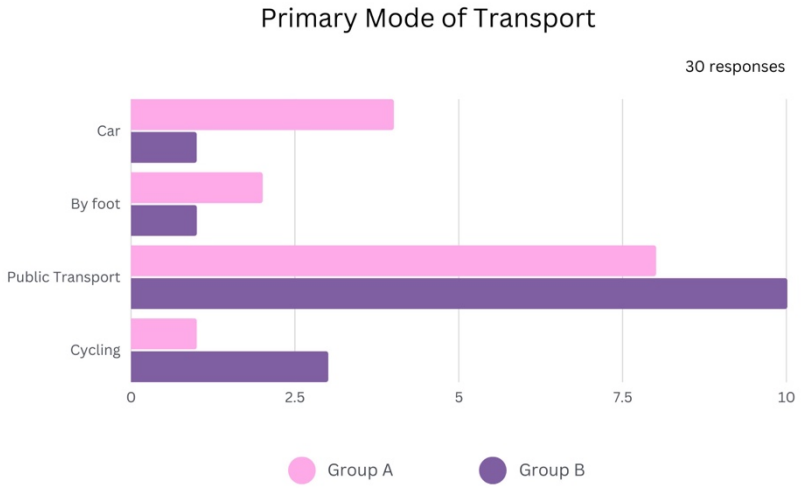

Figure 15. The main form of daily transport for each of the women from both groups.
As four women voted for more than one option, there was a total of 30 responses.

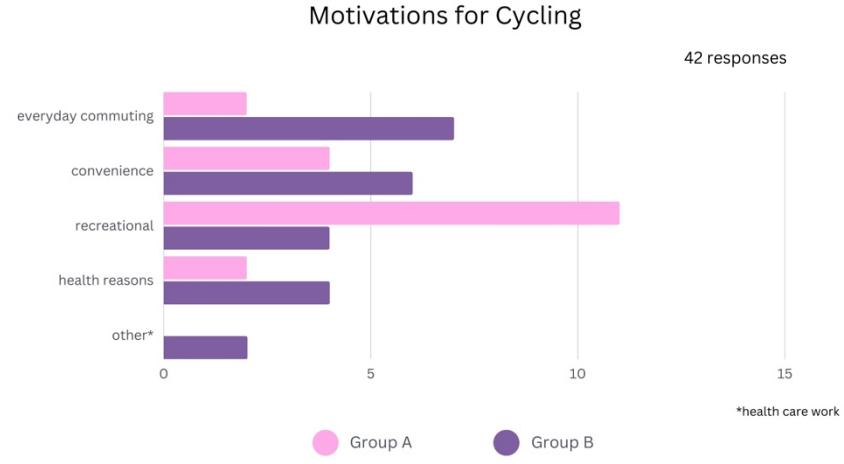

Figure 16. Motivations for cycling among the women from both groups.
As some women voted for more than one option, there was a total of 42 responses.

When questioned about the bicycle in particular, the results significantly varied among Group A and Group B. As the participants of Group A were selected in passing, many of them did not have a strong relationship to the bicycle whatsoever, especially as a main form of transportation. Due to this, one of the most significant findings was that these women mainly chose to cycle for recreational use; this made up one of the primary motivations for nearly 80% of participants within the first group alone. This was followed by reasons of convenience, with health reasons and everyday commuting being tied for the least chosen option. However, within Group B, the clear majority trend was toward using the bicycle for everyday commuting purposes. Reasons of convenience, recreational use, and health reasons followed. Two of the participants chose the other option, citing cycling as a compulsory skill that they must learn for their home care jobs.

Perhaps one of the most notable differences among Group A and Group B is their prior knowledge of cycling. When Group A was questioned about when and where they learned to cycle, the majority stated that they had learned at a far later age than their Danish counterparts, with the most common age being 9 years old (this even reached as old as 16 years old). Interestingly, with a much older collection of participants in Group B, 10 out of 12 of the women had never ridden a bicycle in their lives, citing reasons of late immigration to Denmark, cultural and religious differences. The remaining two stated that they had ridden in their youth, but had soon lost the skill.

All of this data is well-aligned with how many of the participants do not feel fully comfortable riding the bicycle: only 3 out of the 14 participants in Group A claimed they actually feel fully comfortable, while over 50% of the group believed they had some level of discomfort or reservations about it. This corresponds to data regarding frequency of cycling; when asked how often they take their bikes around the city, the women responded with a majority answer of “never” (~ 57%) followed by “few times per year” (~ 30%). The remaining answers had zero votes. Only one woman confirmed she rides every day.

Attitudes varied within Group B; the majority of participants, having attended the bicycle workshops for at least 1-3 months already, stated that they now feel neutral, slightly, or very comfortable riding the bicycle. Yet, this came with reservations; they still maintain a conditional approach regarding where, when, and with who they cycle with. In fact, only one participant, a woman who had only been taking classes for two weeks, claimed that she felt vastly uncomfortable riding. As for frequency of riding, many more women in this group rode more often. Although six women stated that they never cycled outside of the courses, four of them knew this was because they simply did not own a bicycle of their own to use. As bicycles are provided free of use at the cycling courses, many of the participants rely on this when they attend. The remaining six participants speculated that they cycle outside the class a few times per week, and two of them asserted that they cycle on a daily basis.

When asked what would need to change in order to cycle more habitually, 7 out of 14 participants in Group A said it was a matter of self-confidence, while a few younger girls insisted they would cycle more if their parents were to encourage them. 11 out of 12 participants from Group B said that it was a matter of gaining confidence, skills, and practicing more. The remaining six echoed the same sentiment: they just needed to own a bicycle.

In both groups, however, many of the women expressed that they feel the least comfortable cycling as a means of commuting around the city. In fact, it was cycling in inner-city Copenhagen that a majority of participants would either try to avoid at all costs, or would have to take significantly more time practicing on the bicycle to finally ride in the city. Yet, this seemed to be a goal of many of the participants of Group B, who decided to take the cycling classes with the intent to eventually use it as a tool of commuting and everyday mobility.

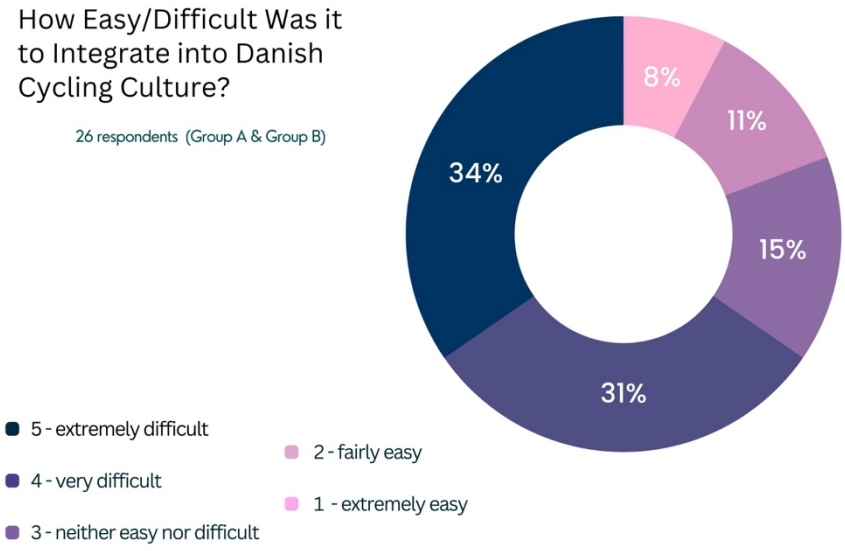

Figure 17. Participants responses when asked how much they have been challenged by the Danish bicycle culture.

As a final consideration, participants were asked how easy or difficult it was for them to integrate into Danish (bicycle) culture. In both groups, a majority of participants unanimously agreed that the process of integration was extremely difficult (this option received five votes per group) or very difficult (this option received four votes per group). Neutral, not very difficult and not at all difficult were among the least chosen options.

Figure 18. Photos taken at the Frederiksberg bicycle training course in May 2023. The training path was a wrap-around road that also extended north. Women in the courses wear reflective vests, helmets, and knee pads (by request). Training usually begins around the smaller, circular lot; the more advanced students make their way to the road extensions outside of it, seen with the girls featured on the bottom row of photos.

Thematic Analysis

Following a thorough analysis from the demographics and qualitative interview data, a vast collection of topics emerged. To make sense of the diverse range of shared perspectives, systematic coding helped analyze each transcript, identifying recurring themes and other nuances. This analysis will start with a consideration of the overarching themes that were common to both groups, also exploring the diverse ways in which certain themes acted as a source of motivation for some and an obstacle for others. The themes are then discussed with the support of quotes and anecdotes[9].

Accessibility

As observed in the demographic data collection, six women in Group B expressed that they never cycle outside of the training course; each one attributed this fact solely to the lack of access to a bicycle. Another woman confided a sentiment which is fairly representative of the six women's opinions:

> "I'm not riding outside the class yet. I need to gain more confidence. I also don't even have a bike yet … I would ride more if I owned a bicycle" (1B).

Meanwhile, among the eight women in Group A who never cycle, only two of them reported that a lack of access to the bicycle was their barrier, while the remaining ones did not seem to care about owning one either way.

For some, the barrier to owning a bicycle was not so much a matter of cost, but a matter of stolen property. One woman shared that she has given up on owning a bicycle due to a recurring issue of theft. She divulged that this has happened on a total of three different occasions; after these incidents, she no longer desires cycling in Copenhagen.

> "I don't even try anymore. Every time I buy a bicycle, it gets stolen. It is a big problem we have here in Denmark" (3A).

Lack of Skills or Confidence

As noted, a majority of the women in both groups do not feel fully comfortable on the bicycle; among those reasons is a lack of skill-sets and knowledge on cycling rules and behaviors. This opinion appeared to be completely independent from age group or cultural background. Issues such as feeling unstable and imbalanced were punctuated by a lack of self-confidence and practice; many sought to work on having more control, not falling, and memorizing their route in the city.

Generally speaking, it appeared that most of the women from Group A were cognizant of their inability to ride well, yet were not very concerned about figuring out an immediate solution or seeking bicycle training

[9] All women were kept anonymous in accordance with their interview location; for example, a woman from Group A may be identified as "1A", while a woman from Group B can be denoted as "2B."

of some sorts. Many of them were quite complacent in their stance, fully accepting that their attempts to keep up with the activity failed. This was justified by the fact that they already established alternative mobility solutions (i.e. public transport) to account for the lack of the bicycle in their day-to-day. It was of particular interest that most of the non-cyclists here were quite young, yet the process of learning to cycle is typically more associated and expected by those of a younger age. A common sentiment among the women was:

> "I do not ride well. I am unstable on the bicycle, and feel unsafe" (4A).

Some attributed it to their own faults and obstructions; this ties back into the theme of lacking self-confidence, compounded with an unfamiliarity with cycling equipment and behavior:

> "When I have a helmet on, I feel like I can't see around me and then I am not observant" (7A).

Due to the various moments in which they began learning, women in Group B had slightly differing skill sets and thus, differing perceptions of their own skill sets. However, a substantial number of these participants appeared to have a much higher level of motivation; to many, it was simply a matter of "practice makes perfect." All 12 women interviewed at the cycling courses had every intention to continue cycling and put aside their fears, rather than discontinue the classes when challenges arose.

> "Cycling is a very good way of transportation to access places around me. But I need more confidence and control. I am still wobbly on the bicycle so I only ride on quiet lanes at the moment. I would feel unsafe with lots of other cyclists and people. But I still force myself to ride and build my confidence. I'm excited to keep working on it" (7B).

These testimonies visibly align with the quantitative data found previously, in which more women in Group A claimed that they felt less confident on the bicycle (9 out of 14 women claimed to feel completely uncomfortable, or neutral), compared to the women in Group B (11 out of 14 women were either quite comfortable riding the bicycle, or neutral).

Fear of (Road) Safety

Related to the prior theme, a lack of cycling confidence also interplayed with road safety and infrastructure. For most Copenhageners who cycle, the capital's adapted cycling infrastructure and flat terrain make cycling a viable commuting option. However, some of the women still expressed various doubts regarding road traffic; for many of them, the apprehension was projected toward driver and cyclist behavior on the road, rather than infrastructure. Safety-related inhibitors in relation to the aggressive or abrupt nature of other cyclists on the road was certainly a point of contention. This was a fear shared between both the women from Group A and Group B, although a larger amount of concerns were expressed by the less-experienced cyclists of Group A:

> "I see many accidents where someone falls down on the bicycle. I am afraid someone else will come and hit me with the bicycle, not the other way around. So when I go out, I am always looking over my shoulder and making sure no one is near me" (6A).

> "Mostly I feel safe, only rush hour is my challenge; during peak hours, it can be a bit difficult to bike and I try to avoid the roads at that time because cyclists can be very crazy" (2B).

Other women expressed that, rather than the behavior of other cyclists, it was actually the erratic nature of automobile drivers and their habits. Many highlighted that the shared road space for both cars and cyclists, albeit with separate lanes, presents a subject of dispute particularly at intersections and traffic lights. For many women who do not normally cycle in inner-city Copenhagen and are not very accustomed to the road layouts, this presents an even more pressing concern:

> "I'm considering whether I should let my son ride the bike. I'm afraid that someone will hit him … sometimes people drive across the street when it's red. You need to give extra time to make sure no cars come. But if things are going to happen, it's going to happen" (3A).

Some of the women even went on to offer possible solutions that could ease their concerns regarding cycling in the city.

> "I wish that when you cross the road, they have more of a separation between when the bicycles should be allowed to go, and when the cars should be allowed to go. There should be a green light for the bicycles first and then for the cars. Maybe it will reduce some accidents" (2A).

Safety Concerns (Gender-Based Harassment)

There were a small handful of concerns that related to gendered fear and vulnerability; in the data collection, only one woman from both groups cited a fear of street harassment as a limitation that impedes her ability and willingness to cycle, while a total of five women from both groups cited dim street lights as a factor. While this was linked to the fear of being a woman, it was unclear if this stemmed directly from a fear of harassment.

The first woman candidly spoke from experience, recounting multiple instances of encountering assault in Copenhagen upon being targeted for wearing hijab. Yet, the bicycle became her weapon — as a cyclist, she feels more liberated to circumvent space and can become more elusive to the public eye; i.e. her identity as a hijabi woman can be more successfully 'masked' when she rides on her bicycle.

> "I have been physically attacked two times while out in the street, at night. Both times, I was walking. These incidents both happened after I began wearing hijab. It was also before I began to bike everywhere … I feel like I am very empowered on the bicycle, I can get away from crime more quickly. I have not had any problems since then" (7A).

In the meantime, the five others also elaborated on their fear of dim street lights and alleyways as reasons they did not feel safe being around at night. Nonetheless, all confirmed that walking makes them feel less safe than cycling.

> "I get scared of dark streets. I always look over my shoulder if I am outside at night" (2A).

> "As a woman, I always try to be with somebody when I'm outside, especially when it's dark" (4B).

Health Reasons

Cycling for health reasons was an option directly voted for a total of six times out of both groups, making up approximately 11% of the total possible votes. Within individual testimonies, it was only brought up a total of three times; all testimonies were only mentioned among the women of Group B.

> "Riding a bicycle is like a sport. It's also helping me in a way to stay healthy and do something more fun than workouts. So I find it interesting" (5B).

Lack of Local Knowledge

A distinction in emotional perspectives emerged among Group A, who expressed more reservations and apathy about cycling, and Group B, which highlighted more sentiments of liberation, self-reliance, and empowerment. For Group A, this extended into a conversation regarding general knowledge about their surroundings and how well they can access local bicycle routes, learn about local bicycle projects, and become educated on any upcoming events that concern cycling, education, and empowerment.

Women in Group A were asked a few questions in regard to existing bicycle infrastructure in their surrounding areas, including the recently completed project connecting Tingbjerg to Husum Syd. While nine participants said they were completely unaware of the new developments, five participants recognized it but remained fairly apathetic towards it, citing reasons of lack of advertising, bicycle ownership, bicycle education, and motivation from family members who do not typically encourage the women in the family to cycle.

> "I had no idea that was happening, actually. I never heard of it, maybe because I don't keep up with a lot of local neighborhood news. Most of my family doesn't. But to be honest, I would not cycle even if I knew. I just don't want to" (8A).

> "Yes, I heard about the new construction, but that's because I lived here for many years. I think it is a great thing they are doing, for the people who ride bikes. Not many of us do here. It's just not in our culture. And many of my kids are older, so they never learned in school" (6A).

Overall, the 14 participants in Tingbjerg gave the impression that they are both apathetic toward cycling, and simultaneously unaware of events and education concerning cycling around them. Many expressed never hearing about any bicycle events, while only two of them had heard about the classes being offered by Røde Kors. This exhibited a clear isolation from the local surroundings.

Personal Emotions & Reactions

Within Group B, testimonies conveyed a variety of emotions relating to the empowerment that the bicycle grants them. This image was reflected in narratives that underscored the transformative role of the bicycle to prove themselves, thrive autonomously, and become emancipated from the need to depend on partners or family members for transportation. This was especially notable considering that many of these women were navigating the process of cycling as an adult, challenging conventional norms.

> "You feel pure freedom when you cycle; you become independent" (10B).

> "Here, bikes have more rights. It's empowering to ride one" (1B).

One woman in the cycling courses recognized the implications of learning as an adult, priding herself and her classmates on having the courage to put themselves out there and attend. She acknowledged the initial apprehension she felt and how it transformed into celebrating her endeavors and valiant efforts to push herself into unfamiliar waters. She describes this as a way of cultivating her self-confidence, highlighting the idea that to learn something new is to be successful.

> "I think it's brave to come here, especially as a grown-up. It's scary. I hear about a lot of women who don't have the courage to come here. But we do!" (2B).

The woman from Group A indeed relayed these sentiments, but nowhere near the same degree; only 3 out of 12 women described some sort of positive emotion that emerged for them from cycling.

> "When I bike fast, I feel powerful" (9A).

Health Care Work

Four out of the 12 women in Group B are pursuing training to become a health care worker in Denmark. Interestingly, the original survey responses did not all highlight this. When asked to choose their motivation(s) for cycling, two women indicated their health worker occupation by marking the "other" option. Yet, the other two women also in health work marked down convenience or efficiency as the reasons they took up cycling, first and foremost. This observation gave insight into the fact that the courses served a broader purpose, attracting participants for reasons other than just compulsory. For one of these women, health care work came later: she had originally enrolled in the class for the sole purpose of convenience, but she was content to witness its evolution into something just as helpful.

> "As for me, I signed up for this course in October before I even knew about my education which I started in February. I am studying to be a health care assistant and biking is no way out" (11B).

Another woman in the line of health work admitted she despises cycling, and would not be cycling if it were not for her job. She mainly credited this aversion to personal reasons concerning her health and weight. However, she was willing to put aside her concerns for the sake of her job, which she emphasized her passion for.

> "I've always been fascinated about the bike, but cycling is the most difficult part for me. The work, on the other hand, I absolutely love. So I am willing to cycle and build independence for the sake of my job" (12B).

Efficiency

The efficacy of the bicycle emerged as one of the more frequent themes; with Group B's data aligning well. Convenience and daily commuting received among the highest votes, whereas these options were among the least voted for in Group A, who placed less priority on the practical benefits of cycling as much as the recreational motivators. Perhaps the most commonly recognized aspects of efficacy concerned time (being able to reach destinations more quickly compared to time spent in another form of transportation), cost (it is much cheaper than other forms of transportation, such as driving or taking public transport), and convenience (having the liberty to hop on your bike and head toward your destination, rather than waiting at a bus stop).

> "By riding the bike, life becomes a bit easier — I can be outside longer. I can go from one point to the next and I don't need to take the bus or think about the time it takes to walk somewhere … when you cycle, you realize Copenhagen is not that big; I'll be cycling through Frederiksberg, and suddenly I'm in Østerport, and then in Nordhavn…I notice how the geography changes, and how much quicker and more convenient it would be just to ride" (3B).

Another woman shares her struggles with the bus schedule in Copenhagen, in which many buses tend to arrive a few minutes behind schedule. She expresses her impatience with the unreliability of transport, underscoring that long wait times have begun to impede on her daily schedule and cause tardiness for work or appointments. For her, cycling is a solution to compensate for long wait times, or the considerable distance it would take to walk somewhere.

> "I like it. It's convenient. I can use it to get to some places that I cannot get to by car. I can also avoid local transport. [The bicycle] is way faster, hygienic, cheaper, and more reliable compared to the bus schedules. It's the reason I am learning to bike — to have the freedom, to have more control of my schedule and to use time more efficiently" (11B).

Another woman cited her poor physical health as a great reason to cycle, as it exerts less energy than it would take to put pressure on her feet and walk.

> "After an operation on my feet, biking seemed very convenient since I cannot walk long distances anymore" (4B).

Interestingly, care mobilities were also stated as a reason to choose the bicycle; being able to cycle with your children and move more easily with them from one place to another — particularly for those who own cargo bicycles — proved to be a blessing for two of the women.

> "I own a cargo bike which I was motivated to learn to use to transport my kids to and from daycare. I was already pregnant with my second when we bought it and it was so much faster, even with a pregnant belly, than the 15 minute walk" (1B).

Formation of Networks & Belonging

The formation of networks and belonging was perhaps the most commonly shared theme of the interviews. For Group A, bonds and networks were predominantly rooted in the community of Tingbjerg, where the enclosed environment facilitated the freedom to feel safe. Here, many of the women expressed feeling a tie to their neighborhood that they felt nowhere else in Copenhagen; this was mainly on the basis of living in the proximity of family and friends, where many of them had immigrated to Copenhagen alongside each other. For a couple of the women interviewed, this contributed to their level of comfort in cycling. However, this network in Tingbjerg also made them feel limited to cycling only within its confines, and many expressed that they would not dare to explore outside and venture into the city center.

> "I feel like when I'm here, where I live and I know everyone, it's easier to bike. I feel safe. It's enclosed, people look out for me and my family … I've never tried biking out there in the city. I would rather bike around playgrounds and fun areas where I know my mom is watching" (13A).

In Group B, networks and connections were mostly made around the cycling class community, where many of the women cited their gratitude toward the positive environment that manifested in the classes through mutual encouragement and a sense that, "everyone is just like me!" Five of the women in Group B specifically recognized that they would not have been cycling at all if it was not for Røde Kors.

> "Organizing such courses was a great idea, because in our cultures cycling is not so popular and learning how to ride is very important for adapting. It also allows for meeting new nice people, many who share the same background as me, and for networking. Plus, it's fun!" (5B).

> "I think it's great that in Copenhagen, so many communities offer classes like this. If not for these classes, I wouldn't even think about cycling. The people here gave me motivation to come back every week. Everybody is very encouraging and I feel like they want me to be better" (8B).

Cultural Barriers

By far, the most common connector among women in both groups was concerning their cultural and societal backgrounds, and how this still shadows over their present choices and attitudes towards cycling. Throughout the women's testimonies, there was a clear interplay of cultural factors that took on different forms of influence at various points in their lives, impacting their mobility choices from early childhood to adulthood. For some, it still manifests as a present-day barrier; for others, it becomes a motivator to defy traditional expectations. Examining the overlap between cultural norms and personal agency contributes to a richer understanding of the challenges they navigate to embracing or rejecting cycling.
Given that all of the women interviewed came from a MENAPT background, this further contextualized their shared experiences. Around 18 of the 26 women interviewed mentioned one of the following words or phrases in their testimonies: stigma, only for boys, not normalized, not accepted, not for women, not common, and not allowed. This woman's statement collectively represents these notions:

> "I came from a community where back then, they didn't culturally consider the bicycle for women. It was seen as a "boy" thing. So I always thought: why should I ride a bicycle?" (9B).

A woman from Iraq depicted how some women weaponized and reclaimed the bicycle as an opportunity to feel empowered and independent, recalling how there is a slow yet steady trend toward a new era of cycling for these women.

> "I think it is very good to see more women with a Muslim background starting to ride bikes. It is not very well-seen… when you go back to the 70s and 80s; like, it was not a good thing for women to ride. But generationally, we see more women doing it, which is empowering. Many men use Islam to say to these women 'you cannot ride the bike because I can see everything under your legs!' and I think it is [men] just not wanting women to be empowered" (1A).

Similarly, another woman had also adopted the bicycle as a symbol of legitimacy and freedom as a woman, even impeding her mother's wishes to stay away from it. She reflects on the potential regret she would have felt if she had obeyed her mother and remained confined by her childhood way of knowing.

> "Back home, my mom was very old-fashioned. She always told me I couldn't ride the bicycle, because no Somali woman ever does. So of course, I started riding one. She hates it. But I swear, I would have never gotten married if I listened to my mom!" (2A).

Yet, others still feel influenced by their cultural background and norms back in their home country, failing to embrace this "position" on the bicycle for fear of it being sexually suggestive or inappropriate to others. This legitimizes the small handful of women who still guard these reservations, understandably given their perceptions of it growing up.

> "I don't like the way I sit on the bike. I think it's inappropriate" (12A).

Generally speaking, there is a resounding recognition that their cultural backgrounds depict a different lived reality for them, and they must work harder to fight against it and prove themselves in a Western society that does not fully recognize or resonate with elements of their cultural backgrounds.

> "There is a process, but I think we're getting there. It's going to take a little long. But people also have to understand ... the life we women have lived in our countries before coming to Denmark. So we have to work a little bit harder to prove ourselves" (2A).

Other women used familial norms (in this case, being a stereotypically "overprotective mother") to justify their stance on forbidding their children to cycle. In this case, it is notable that despite having lived in Denmark for many years now, many of these opinions remained culturally and generationally retained.

> "I am a mother who is too concerned about her children. What if a car comes? What if there is an accident? My children want to bike, but I do not allow them to. Even some Arab women here have become like Danish people where they have started to allow their children to ride bicycles from an early age, but I do not" (4A).

Adapting to Local Culture & Norms

In Group A, a sizable number of participants recounted learning how to first ride the bicycle between the ages of 10-16 years old. This was mostly a result of the younger demographic interviewed at Tingbjerg; the earlier they immigrated to Denmark, the earlier they learned to cycle. This trend was also visible among the women in Group B; however, as the class is for adults only, most of the women were much older and had just joined only a few months or years after arriving in the country. In this case, the later they immigrated, the later they learned to cycle. Considering that the typical cycling age in Denmark is around 3 years old, this created a vast discrepancy between their cycling habits and what is deemed to be "normal" within the social context. For some of the adults, this instilled a sense of embarrassment or shame, knowing a child was able to do what they could not.

> "Before the class, I was SO nervous [to ride]. I was feeling not only afraid, but embarrassed. You have so many Danish kids who ride the bike so young and it's like, how come I can't ride the bicycle? It feels so embarrassing and makes you feel down, like your self-esteem is being trampled on. Like I can't, but kids can! How?" (5B).

For a few girls in Group A, their motivation to cycle was influenced by the approval of their parents. Some described how their parents actively worked to shift their "traditional" mindset of the bicycle to a more "Danish" perspective in order to accommodate them, especially as they are easily influenced by their Danish peers riding bicycles at school. They hoped that this shift would ensure a smooth transition into Denmark and evade questions or judgment from locals. Throughout the data collection, it became evident that for many, cultural norms still affected their perception of cycling; yet, once they were removed from their home country and placed in an environment that embraces this travel behavior, many began caring less about the inhibitions they once held. Instead, energy was turned toward assimilation, trying to blend

in as much as possible while balancing the fine line between cultural expectations and the society they were now a part of.

> "I was 5 when I learned how to ride a bike. In my family, when we turned 5, we all got a bike. It was a Danish tradition that we adopted, I guess. My sister and my older brother were always biking around the area and I was like, 'I want to do it too!'" (10A).

> "I talked to my sister and she is so happy about [me cycling]. Now that I am in a different society where there are different cultural norms, my family doesn't mind as much" (7B).

A 24 year old woman who moved to Denmark at 10 years old stated that she struggled with the notion of coming from a country where women cyclists were not well-accepted. This eventually manifested in feelings of ostracization, where she did not feel fully integrated with the local culture, nor to her friends.

> "I learned to ride the bike when I was 14. I was quite old. I learned it with my family here in Denmark. It was at the point where I felt that I needed to learn. All my friends were doing it. I forced them to teach me … I had to join" (11A).

This notion of the bicycle being a barrier from connecting with friends emerged as a recurring theme. A parallel mentality was echoed among women in Group B. Even as middle-aged adults, they still experienced these child-like feelings of isolation and exclusion for not doing what "everyone else was doing" — one woman even called it an "adult form of peer pressure."

> "My friends will go tour the city or go somewhere and ride the bike to go there. Then I'll be the only one taking transport and saying 'okay, guess I'll join after!' So it can be hard that I am in a culture where everyone can bike. I feel left out" (5B).

> "All of my friends know how to ride the bicycle. Every time we want to go out and do something, they ask 'would you like to come with us?' and I always say 'next time' but honestly, I'm ashamed to tell them that I don't know how to ride. But once I finally told them, they said 'really? Are you kidding me?' I feel really left out, and just dumb" (7B).

Overall, riding the bicycle emerged as a tool of socialization for many women. Cycling became a means for them to bond with family and friends, with many of them citing that it allowed them to feel more comfortable and accepted in local spaces. Although some participants eventually recognized that the bicycle was simply not meant for them, the motivation to cycle was, in many cases, still brought upon by some type of a desire for integration and adapting. One woman accredited this to a means of getting to know the local culture and learning the way of life, as it was a priority for her when moving to a new country.

> "I want to understand the culture of the people. I came [to Denmark] and saw that many people are cycling and they have [bicycle lanes] for this, so I decided to start" (3B).

Discussion

Having uncovered vastly different insights from migrant women's experiences with cycling in Copenhagen, the aim of the following discussion is to unravel the meaning embedded within these narratives, and how it resonates with existing literature and the socio-cultural context as a whole. The following discussion is framed under the New Mobilities Paradigm (NMP) in order to offer a lens that acknowledges diverse dimensions of mobility.

How can we apply feminist literature?

These findings propose a unique take on the experiences of MENAPT migrant women in Copenhagen, as framed in the context of the cycling gender gap theory (Mitra & Nash, 2018; Dill et al., 2014; Ravensbergen, 2020; Shaw et al., 2020). In a nation that has been celebrated for a progressive and gender-neutral cycling culture, where the gender divide in cycling participation is minimal, if not absent — a notable gender disparity still persists. As long as there is a gap to fill in supplying education and classes geared toward cycling for migrants, their experiences and perspectives cannot be adequately accounted for in broader reports, highlighting the importance of considering intersections of gender, culture, and migration. This is fairly consistent with findings by Garrard et al. (2012), who emphasized this bicycle-inclusive culture that persists among Western nations such as Denmark and The Netherlands — however, the cycling disparities are still framed without any nuance to other cultural groups residing in these cities , who do not partake in local customs to the same degree. Many theories surrounding the cycling gender gap also concern aspect of care mobilities; literature by Schintler et al. (2000) and McGuckin et al. (2005) have noted that historically, care mobilities and multi-modal chain trips are a unique reason as to why women cycle less.

However, the results of this study offer an intriguing departure from some prevailing assumptions found in the literature. A number of participants expressed that cycling, particularly through the use of cargo bikes, actually *enhanced* their ability to perform care mobilities efficiently. The cargo bike emerged as a versatile tool that enabled them to manage childcare and errands more effectively in terms of travel cost and time (Levinson et al., 2005), thereby challenging the idea that caregiving responsibilities deter women from cycling. When considering the local context, however, this makes sense: the cargo bike is by far the most popular in Denmark, along with Germany and The Netherlands (Boterman, 2018). Thus, their prominence highlights the importance of supportive framework, once again addressing the theme that mobility patterns can often be influenced by local cultural norms and infrastructure. However, riding with children, among commuting to work or participating in health care social services, is often linked to a level of confidence while riding. Confidence and skill-set were among one of the highly chosen reasons as to why women do not cycle, and a handful of women accredited this to the fact that they are not often accustomed to be in a position of complete and total autonomy of their mobility habits, echoing research on how migrant women often struggle to assert their rights on the road (Maxwell & Taylor, 2010).

The impact of culture

The findings provide a more conceptual understanding of simultaneously the barriers and the motivators that culture played in the wider context of cycling for integration. Through a comprehensive review of the narratives, unfavorable perceptions towards cycling are notably more prominent among MENAPT populations, in line with previous research by Segert & Brunmayr (2020). A vast majority of the women interviewed reported that their cultural backgrounds put them in a compromised position to access forms of mobility; research by Nadimi et al. (2022) and Soltanzadeh and Masoumi (2014) is telling of this phenomenon. As many of the women shared, in male-dominated societies, women are not often afforded the individuality to pursue activities that are not in the "norm." Hamzeh and Oliver (2012) report that males must endorse foreign activities if the woman is to participate in them, aligning with reports from Emma where men would often show up to the cycling classes to watch their wives or female family members, dominating the landscape and asserting their opinion in the class.

This observation underscores the struggle faced by non-Western migrant women, especially in affluent Western societies, in terms of access, capability, and cultural outlook on cycling. However, this also brings up a new perspective: oftentimes, previously retained cultural beliefs and attitudes can become malleable when immersed in a new environment. Only a total of one woman out of the 26 interviews expressed that she still feels it is inappropriate for her to use the bicycle as a woman, and reveals that this is still an internalized perception of shame that she has due to her cultural and familial background (Amini & McCormack, 2020). For the remaining 25 women, however, all of them consider it fairly normal to cycle; although not all of them prefer to, about 70% of those still actually consider the bicycle to be a tool of empowerment. This does, however, assume a misalignment between norms retained from their home country and the evolving perspectives observed in their host country. Another factor that may have influenced this was partnership; there were a handful of women in the bicycle course who had Danish partners, and had moved to the country to reside with them. Having this link into the culture upon arrival made for an easier transition.

This underscores the fact that many women initially encountered obstacles while grappling with the transformation of cycling from a marginalized activity to one embraced as progressive and empowering. When it comes down to a matter of actually seeking the means to participate in the sport or not, this presented a variety of considerations that were not always cultural, such as unwillingness to exercise, safety concerns, health reasons, concerns with other more experienced cyclists on the road, or just pure apathy. This apathy could be an extension of what Summers et al. (2018) alludes to as a lack of encouragement and marketing of physical exercise and sport to this particular demographic of women, which naturally leads them to be less active (Baek et al., 2016). This also aligns with the findings that very few women actually cited the bicycle as a means to be fit and healthy, which Ryom et al. (2022) accredits to a failure to propel educational programs and solutions to improving their health.

Unexpected Findings

On this note, a few findings were quite surprising: safety most commonly seemed to be referenced in terms of road safety rather than women's safety; the overall lack of extensive discussions about safety perceptions in relation to being a woman was more unexpected than originally anticipated. The findings of literature such as Valentine's (1989) or Scraton's (1998) on the geography of women's fear originally pointed us to consider that women have to shape their mobility patterns on spatial manifestations of fear that are shaped by the possible threat of male violence. Yet, this was mentioned by a small portion of women; one spoke of her own experience with assault perpetrated by a hate crime, while the others mentioned a fear of dim lit streets in concern of being attacked, in line with Scraton's (1998) research of women and their mobility patterns of fear.

It is possible that the urban cycling environment in Copenhagen, with its pre-established egalitarian culture, has created a sense of safety that counteracts the apprehensions that are usually expressed in scholarship. This could also be linked to the testimonies of a few women who recognized that Denmark as a whole is more gender-equal than their home countries. Moreover, the dominance of other themes, such as the empowerment gained through cycling and the pursuit of personal goals, likely overshadowed the discussion of safety concerns. While the initial expectation was rooted in valid research, the nuanced realities uncovered in this study suggest that the significance of safety concerns and fear of harassment may be contextual, demanding more tailored approaches when designing policies and interventions to promote cycling. However, it is not to say that this is not the lived reality of other migrants elsewhere.

Although Copenhagen is widely known to be quite a flat city, the areas surrounding Tingbjerg are quite hilly — an observation also confirmed through my own personal cycling experiences in the area — requiring a heavy exertion of physical effort that could easily present itself as a barrier to choosing to cycle. Yet, participants did not often cite this factor as a significant deterrent to cycling, suggesting that other aforementioned influences had a more substantial impact on their cycling decisions.

The younger women and girls were strangely the ones to be more apathetic toward cycling, while the older women tended to be more motivated and passionate. Yet, concerns of road safety did not discriminate against age; both young and old revealed concerns regarding Copenhagen's bicycle lanes and rush hour, citing a fear of sharing the lanes with some "more aggressive cyclists" on more narrow cycle lanes, which resonates with Pikora et al.'s (2003) research of the four internal and external factors that could affect mobility patterns and behaviors, among those being perception of road safety. It is difficult to make sweeping generalizations in saying that these concerns only apply to MENAPT women and not their ethnic Dane counterparts, however, these issues seem to persist more among a population who did not grow up with the bicycle as an integral part of daily life. For them, there is a deeper meaning attached to learning how to cycle, and often, it takes more persistence and acceptance to include it in their lives.

Belonging & Segregation Impediments

The themes of spatial segregation and belonging were found to be quite intertwined. By splitting the interview groups into Group A and Group B, this presented an opportunity to discuss two formations of belonging: the women who belonged to Tingbjerg, and the women participating in the cycling class. The women of Tingbjerg offered an interesting take; aligning with research by Dawkins (2006) and Portes (1981), migrant groups new to a country may often find themselves forming and living in ethnic enclaves with others who share familial ties or other cultural factors, serving as a basis for a sense of belonging. This can be a way to compensate for the loss of social capital that is experienced by migrants upon relocating, a point echoed by both informant interviews as well as a handful of women in the cycling courses. Literature by Glaeser et al. (2002) points to the detrimental consequences of a loss in social capital for migrants, who often lose the will to rebuild their lives and establish themselves anew. This finding implies that spatial segregation can serve as a double-edged sword for migrant women. On one hand, it offers a support system and a sense of comfort. However, it can also result in limiting their mobility and willingness to explore beyond the confines of their community, as indicated by their reluctance to cycle into the city center, thus potentially impeding integration and broader engagement.

It was intriguing to find that not a single woman of Group A who resided in Tingbjerg was fully "in the know" about the local environment. This also makes a point about residential segregation and its impact on what one has access to, what one consumes, or even what one cares to pay attention to. This echoes previous literature on the ethnic enclave, which cites that those living here are typically more isolated from their surroundings and less aware of what is taking place in the surrounding city. Although some of the Tingbjerg women did express that they felt quite isolated in their neighborhood, namely due to poor transport access, they did not seem to realize the plans happening around them nor wish to participate in them regardless. This points to previous themes of apathy, intrinsically tied to lack of outside information reaching Tingbjerg, at least in regard to cycling. Or, it could simply be a matter of the mere fact that they are not interested. Again, however, this lack of interest has the potential to be explored.

It is worth saying that the explicit mention of certain topics and ideas such as 'ghettos', anti-immigrant rhetoric, and other specific immigration policies was fairly absent from the participants' discussions, and rather just mentioned in brief by the informants, who point to the effect that tight immigration laws and spatial segregation have had on the migrants they have been in contact with. Even though these themes weren't directly addressed in the migrant interviews, their influence can be inferred from the broader socio political landscape in which the interviews took place. This also speaks to the fact that there was a severe lack of awareness regarding local proposals, new bicycle lanes, and the bicycle training classes by women in Group A, pointing to a larger idea that not enough information or care is reaching these communities, especially considering that the women in Group B found out about the cycling classes through friends or google, pointing to a certain degree of lack of access and opportunity (Regeringen 2004, 2010, 2018; Nawyn et al., 2012) through the isolated nature of the 'ghetto' and the people living within it. While participants may not have explicitly mentioned living in a 'ghetto,' their experiences have been impacted by the dynamics of these areas, including limited social mobility, reduced access to education and services, and other, varying negative stereotypes.

However, the need for belonging can also be considered from an alternative angle as it becomes a means of integration and further connection with local society. The bicycle classes serve as a positive avenue where new migrants can achieve belonging and heightened sense of well-being(Farrugia and Muscat, 2023; Arslan, 2021) not only learning how to cycle, but also interacting with peers who share similar hardship. As they engage in the class, they simultaneously acquire networks and social capital which can be vital for accessing new opportunities. Nevertheless, the class's impact is unfortunately limited by lack of awareness, as found by the many residing in Tingbjerg who were unaware of the classes entirely. Despite its potential benefits, the cycling class does not seem to be effectively advertised or accessible to all migrants. The lack of visibility prevents others from reaping its advantages and the potential for broader social integration remains unrealized.

Furthermore, the theme of integration extends beyond cycling, as evidenced in the participation of migrants in health care and social work roles. These jobs, which are often turned down by the local population, become a way for migrants to engage with Danish society. Today, these jobs are mostly migrant-dense. The requirement for cycling skills in these professions inadvertently leads to more skill acquisition. These roles also bring migrants in contact with the local elderly population, facilitating cross-cultural interactions and fostering mutual understanding.

Integration & Final Remarks

At the beginning of the interviews, when participants were asked about the range of ease or difficulty they perceived integration into Danish (bicycle) culture to be, a majority of participants from each group agreed that it was quite difficult for them to adjust to. Throughout both sets of interviews, a very recurrent and consistent theme was the "feeling of being left out" when they could not ride the bicycle or participate in such group activities with their friends. For many of the women, the desire for integration and adaptation was born from a need to fit in and do what everyone else was doing. For others, it was also derived from a desperation to make things as easy as possible for those around them, as many felt they inconvenienced their loved ones by being the "only one" who did not know how to cycle, which resulted in them having to change their mobility or temporal patterns to accommodate them. The most common root of these themes, however, was a sense of shame. Zerlang's (2018) research on Danish bicycle culture resonates with this, suggesting that migrant women often struggle with smooth integration into the country as they cannot obtain "the passport" that is the bicycle (p. 84), and many try hard to obtain it as a means to avoid these types of negative feelings among their peers, ones that lead to poor well-being and mental health (Farrugia and Muscat, 2023). Overall, these perceptions stemmed from a complex interplay of cultural differences, personal experiences, societal norms, spatial hindrances, and other personal factors that reveal: no one's integration process was singular. While some viewed cycling as an opportunity to connect with Danish norms and values, others found the cycling culture intimidating, unsafe, or unfamiliar.

Future Considerations

The discussion pointed to a tangible gap in access and education regarding mobility, a pathway for better integration in Copenhagen. In order to encourage more cyclists among this demographic of non-Western migrant women in the future, policy changes and other considerations must be considered from a gendered perspective in order to further plan for more inclusive mobility access by considering local context, spatial implications, and cultural differences.

Firstly, recognizing the intersectional identities of women and their differentiated mobility needs is of the utmost importance, and should be recognized within both policy and education initiatives, as well as considered in future infrastructure planning. Infrastructure that is safe, well-lit, and wide enough to accommodate cargo bicycles and other forms of "larger" cyclist transportation must be prioritized. Additionally, there must be more of this accommodating infrastructure built in and surrounding pockets of larger migrant populations in Copenhagen, with lanes connecting to the populated city center and other destinations that can encourage widespread mobility.

However, it is important to prioritize tailored education campaigns and mobility education alongside these projects; infrastructure does not always equal use, and can often end up underutilized without proper awareness. I suggest that bicycle training programs be embedded into the Danish integration program for MENAPT migrants first settling in Denmark. Denmark's focus on ensuring that migrants who enter the country start becoming independent and self-sufficient without welfare benefits is addressed in the government's updated integration program, as of 2020. The program emphasizes learning the Danish language (both through mandatory day care at the age of 1 or language courses for adults), finding a job, reducing the amount of 'ghettos' and breaking down the congregations of ethnic enclaves, among other initiatives (European Commission, 2020b). However, it has never considered teaching one of the most key cultural symbols of Denmark: the bicycle. Integrating mobility education for able-bodied individuals through providing more free cycling classes, state-sanctioned access to a bicycle, or encouraging more participatory engagement can promote early engagement with cycling, paving the way for a smoother integration process and the confidence to navigate the city by bicycle. It is already a positive step that health care and social work, a job field mainly attractive to immigrants, already requires use of the bicycle, creating incentives for women to learn cycling skills and interact with locals. Even so, this should apply across greater disciplines.

This suggestion also considers a participatory approach: cultural competency training among policymakers and municipalities is needed in order to gain sensitivities in centers of diverse backgrounds that address the specific concerns of migrant women. Likewise, another participatory approach is to consider involving migrant women directly in the planning and design of cycling policies. Their insights into cultural nuances and mobility challenges can contribute to the creation of inclusive and effective interventions.


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Conclusion | Looking Forward

This research has examined the intersectional factors that contribute to non-Western migrant women's experiences with cycling in Copenhagen, as well as the wide-scale implications it has for their integration and lived reality. The explanatory and qualitative approach used to understand this demographic and collect data has explored the nuanced ways which mobility patterns manifest, leading to a more intricate understanding of how to accommodate for the future of migrant women in Denmark and other similar bicycle-centered societies.

The findings of this research have been guided by the New Mobilities Paradigm, which highlights the multidimensional nature of mobility experiences and how it is often not just about mobility, but about intersecting factors that make certain mobility patterns or avenues unequal for particular demographics. Additionally, a feminist lens called upon the need to reassess prevailing theories, such as the cycling gender gap; this theory always fares true once it is applied to contexts where cycling is perceived as masculine. Yet, I want to recognize that this theory can also prevail in gender-neutral societies such as Copenhagen, a city that still experiences the cycling gap albeit in a different, context-dependent situation. This necessitates an exploration of how cultural norms and experiences can intersect with cycling participation, questioning the coexistence of cycling as simultaneously a gender-inclusive and gender-exclusionary phenomenon. Considering the experiences of specific cultural groups can emphasize unexplored pockets of gender disparity that warrant attention and targeted interventions.

This duality can also be applied to the women's cultural backgrounds and norms; while previous literature has shown that retained cultural norms often only stand as a barrier to cycling, and are used as a reason as to why these women do not cycle, these norms can also be weaponized in a way to become a motivator for participation. Especially looking at the contextual setting, being in a bicycle-friendly city like Copenhagen was also of particular motivation for these women, willing to put aside their cultural norms for the sake of integration and turn it into a motivation. Of course, this was supplied not only by a will, but a way of teaching cycling. It is important to note that things would be much different if cycling courses were unavailable to these women. The research has shed light on frequently understudied and lesser explored factors that play a significant role in the discourse on cycling behavior and policies — namely, investigating the overlap of cultural background, as well as context-based policies that shape mobility practices.

Past cultural norms, the research also suggests the added interplay of spatial segregation and its implications for mobility behaviors. Many migrants who find themselves "locked" in segregated, ethnic enclaves find themselves here on a basis of attachment and belonging, but also government policy. For many, it is the only place they feel they can belong to. However, this also raises concerns about the potential consequences of remaining in isolation.

The research also considers what would have to change in order for more women to cycle; this consideration involves opening up infrastructure to accommodate more cargo bicycles for women to pursue their care mobilities with their children, instilling more cycling education and orientations for

migrant women to feel more confident in their skill sets, providing more access to bicycles particularly those who cannot afford one, and making cycling a collective effort that instills a sense of belonging. There have been clear efforts made to instill more integration programs that target education that fosters education about the Danish language and other Danish cultural norms and the way they expect migrants to behave in their society; there have also been fantastic efforts to create better bicycle lanes, cycle superhighways, and other infrastructure. However, there needs to be a deeper consideration toward increasing the share of the population that experiences these things the least, addressing this demographic's socio-spatial inequalities and sealing the cycling gap that exists not necessarily among the local Danish population, but in the migrant population. Bridging these two groups together through a means of cycling will in turn decrease stigmatization and promote more accessibility and inclusivity.

Despite the findings of this research, Copenhagen still stands as a model of effective planning cycling, offering the framework of a promising landscape for migrants. The potential to more considerably integrate migrants into the mobility framework is certainly possible, yet requires a chance in plan and policy. The establishment of comprehensive education programs, integration program reform, infrastructure improvements, and abolishment of the terms surrounding the 'ghetto' will not only be pivotal for fostering a more seamless integration process, but also for upholding the city's aspirations of being a gender-inclusive cycling society cycling culture. As time passes and more immigration influx continues, it becomes imperative for policymakers and stakeholders to collaboratively ensure that Copenhagen's cycling ecosystem embraces diversity, promotes equity, and contributes to the broader narrative of social cohesion and sustainable urban mobility.

Limitations & Considerations

It must be recognized that, as with any research endeavor, this study does not exist without limitations. While valiant efforts were made to pursue an inclusive and nuanced investigation, there are still constraints that may have impacted depth of the findings. By openly addressing these limitations, I aspire to maintain transparency and pave the way for more intersectional research in the future.

First, there were concerns regarding the utilization of the term 'ghetto' throughout this study. Although solid attempts were made to treat the situation with the utmost consideration and delicacy, there was still risk in reinforcing stigmas by associating 'ghettos' and immigrants as high-risk communities. This could potentially perpetuate negative stereotypes and images of a community which is precisely what efforts aimed to steer clear of. It must be acknowledged that many migrants live self-fulfilling lives in these localities as well.

Due to the scope and limited time of my research, this thesis was unable to fully represent the nuances of gender, nor its interplay with other intersectional factors such as race, sexuality, or disability. By painting a generalized category of 'migrant women', the research may fall short on addressing barriers that could be faced by other intersectional groups. Yet, this was a deliberate choice; the extent of this thesis would have been unable to allocate the appropriate time and consideration that such an intricate topic

necessitates. Additionally, I recognize that there is also a nuance among ethnic identities that could not be adequately recognized. Although this thesis aligned with the general trends identified, it still acknowledges the existence of distinct identities that could be more comprehensively investigated in future research.

Finally, a limitation in time equity during data collection was identified. Although all data received was sufficient, the collection process still yielded a vast spectrum of engagement levels; while some individuals elaborated in more extensive discussions of 30 to 45 minutes, others opted for more succinct, 10 minute interactions. I acknowledge that participants' willingness and available time for engagement may have been influenced by a variety of factors, including personal commitments and preferences. This variance in time allocation could impact the comprehensiveness of data, potentially resulting in variations among the identified themes.

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Appendix A

Comprehensive interview table.

# OF PARTICIPANTS	WHO?	WHERE?	INTERVIEW TYPE	DURATION	DATE
1	INFORMANT 1	ZOOM	SEMI-STRUCTURED	50 MINUTES	16 MARCH
1	INFORMANT 2	ZOOM	SEMI-STRUCTURED	1 HOUR	12 MAY
14	MIGRANT WOMEN	TINGBJERG	SEMI-STRUCTURED + INTERCEPT	6 HOURS	18 JANUARY
12	MIGRANT WOMEN	FREDERIKSBERG	SEMI-STRUCTURED	3 HOURS	10 MAY

Appendix B

Informant Interview Questions | Ida

- Provide an overview of your work as a translator, what exactly you do, and who you represent.
- In your point of view, what are some of the challenges migrants face while navigating the legal system, especially if they are not proficient in Danish?
- How do you ensure effective communication during court proceedings between your clients and the court?
- What sort of cultural considerations must you take into account when translating legal matters?
- Do you feel as though your positionality and identity, also as someone who moved to Denmark at a later stage in life, makes your clients feel more comfortable with you?
- Please elaborate on your experiences working with women migrants. What unique challenges do they face in comparison?
- Have you represented individuals who reside in parallel societies (formerly known as 'ghettos')? How has this impacted them and their navigation through Danish life?
- What sort of connections do you witness between the legal outcomes in court and migrant integration into Danish society?
- How do legal outcomes positively or negatively influence their ability to access opportunities in Denmark, such as employment, housing, or transportation?
- Based on your interactions with migrants, what sort of policy improvements or support services do you think may enhance the overall well-being of migrants in Denmark?

Appendix C

Informant Interview Questions | Emma

1. Introduction and Background

- Please introduce yourself and your role as a bicycle coordinator. Who do you represent? How long have you been working here? How did the classes start?
- How did you become involved in this field of organizing bicycle training for people primarily with a non-Danish or migrant background? Have you had experience in this before?

2. Motivations and Barriers

- What are some common motivators people mention that lead them to join the class?
- What sort of specific barriers or challenges do migrant women mention when it comes to cycling in Denmark?
- Are there any cultural considerations or sensitivities taken into account when designing the training, in order to ensure inclusivity for participants from diverse backgrounds? If so, what are they?

3. Community Engagement

- In which ways do you engage with the participants and their communities to encourage ridership and promote the benefits of cycling?

4. Collaboration and Support

- Do you collaborate with organizations, government agencies, or other stakeholders to support the program or to address broader issues related to cycling and integration? Which ones?

5. Impact and Success Stories

- Could you share any success stories or anything memorable that highlights positive outcomes of the training?

6. Policy and Infrastructure

- From your perspective, in which ways could city policies and bicycle infrastructure be improved to better support participation in cycling?
- Are there any policy changes or improvements you would recommend to make cycling more accessible and inclusive for those with a migrant background? (i.e. involving language, cultural, lifestyle, social barriers...)

Appendix D

Poster distributed in Tingbjerg and Frederiksberg.

ARE YOU A WOMAN WITH AN IMMIGRANT BACKGROUND? LET'S TALK ABOUT THE BICYCLE!

ER DU KVINDE MED INDVANDRER BAGGRUND? LAD OS TALE OM CYKLEN!

Hello! I am a Lebanese-American woman who is pursuing my Master degree in Urban Studies at Københavns Universitet. On behalf of my thesis, I am conducting interviews on the relationship between women with a migrant background and the bicycle. I want to learn about motivators and/or obstacles that women face when choosing whether to ride a bicycle in Copenhagen. I am requesting anyone interested in having a conversation, to reach out to me at the contact information below.

Your responses will be used solely for academic purposes, and you may remain anonymous.

Thank you for your time!

Hej! Jeg er en libanesisk-amerikansk kvinde, som er i gang med en kandidatuddannelse i bystudier på Københavns Universitet. Som led i studiet undersøger jeg, hvad der motiverer kvinder med indvandrer baggrund til at bruger cyklen og hvad der udgør en barriere for valg af cyklen i København. Hvis nogen er interesseret, så kontakt mig via mine oplysninger nedenfor.

Dine svar vil udelukkende indgå i denne akademiske undersøgelse, og du forbliver anonym.

Tak for din tid!

Contact me! / Kontakt mig!

tamynazha@gmail.com
+32492441614

Appendix E

Semi-structured interview questions prepared for Group A, Tingbjerg.

QUESTIONNAIRE. / SPØRGESKEMA.

The following will ask you questions regarding your demographics, your habitual modes of transport, your perspectives on cycling, and your overall perception and relationship towards the bicycle. Please answer to the best of your abilities. Thank you for sharing your time with me :)

—

Den følgende vil stille dig spørgsmål vedrørende din demografi, dine perspektiver på cykling, dine sædvanlige transportformer og din opfattelse og holdning til cyklen. Svar venligst efter bedste evne. Tak fordi du deler din tid med mig :)

Part 1 | Demographics

1. How old are you? / Hvor gammel er du?

2. Which best describes you? Choose all that apply. / Hvilken beskriver dig bedst? Vælge noget, der gælder.

☐ Employed full-time / Fuldtidsansat
☐ Employed part-time / Deltidsansat
☐ Searching for work / Søger arbejde
☐ Stay at home mother / Bliv hjemme mor
☐ Student / Studerende
☐ Other: / Andet: _____

3. What is your most recent level of education? / Hvad er dit seneste uddannelsesniveau?

4. Do you have any children? / Har du nogen børn?

5. What is your cultural background? (Where were you born/raised)? How long have you lived in Denmark? / Hvad er din kulturelle baggrund? (Hvor er du født og opvokset)? Hvor længe har du boet i Danmark?

6. In which district do you live? / I hvilken distrikt bor du?
7. What is your primary mode of transportation? / Hvad er din primære transportform?

☐ Car / Bil
☐ Public transportation (bus or metro) / Offentlig transport (bus eller metro)
☐ Bicycle / Cykel
☐ By foot (walking) / Til fods
☐ Other: / Andet: _____

Part 2 | Cycling Behaviors

8. How comfortable do you feel riding a bike? Explain. (1 = the least comfortable, 5 = the most comfortable). / Hvor behagelig føler du dig ved at cykle? Forklare. (1 er det mindst behagelige og 5 er det mest behagelige).

1 2 3 4 5

9. How often do you ride the bike around the city? What is the reason? / Hvor ofte bruger du cyklen rundt i byen? Hvorfor?

- ☐ Everyday / Hver dag
- ☐ Few times per week / Få gange om ugen
- ☐ Few times per month / Få gange om måneden
- ☐ Few times per year / Få gange om året
- ☐ Never / Aldrig
- ☐ Other: / Andet: _____

10. Why do you ride the bike? Choose all that apply and elaborate. / Hvorfor cykler du? Vælge alt hvad der gælder og forklar.

- ☐ Convenience (it is easy and quick to get around) / Bekvemmelighed (det er nemt og hurtigt at komme rundt)
- ☐ Recreational (to have fun, enjoy local scenery, take the children out) / Rekreativ (at have det sjovt, nyde det lokale landskab, tage børnene med ud)
- ☐ Health Reasons (to stay healthy and get some fresh air) / Sundhedsmæssige årsager (for at forblive sund og få noget frisk luft)
- ☐ Everyday commuting (going to school, work, running errands) / Daglig pendling (at gå i skole, arbejde, løbe ærinder)
- ☐ Other:/ Andet: _____

11. If applicable, could you explain how and when you learned to ride the bicycle? What factors influenced this? (such as the age you learned at, who taught you…) / Hvis det er relevant, kan du så forklare, hvordan og hvornår du lærte at cykle? Hvilke faktorer påvirkede dette? (f.eks. den alder, du lærte i, hvem der underviste dig…)

Part 3 | Perceptions Towards Cycling

12. Do you feel more safe or less safe while riding a bike in the city? Why? / Føler du dig mere sikker eller mindre sikker, mens du cykler i byen? Hvorfor?

13. Are there any areas of the city where you feel safe or unsafe passing through? Which areas are they and why? / Er der nogle områder i byen, hvor du føler dig tryg eller utryg ved at gå igennem? Hvilke områder er de og hvorfor?

14. How easy or difficult has it been to adapt to the local bicycle culture here in Copenhagen? Circle your answer. (1 = the least difficult, 5 = the most difficult). / Var det nemt eller svært at tilpasse sig den lokale cykelkultur her i København? Sæt en ring om dit svar. (1 = den mindst vanskelige, 5 = den sværeste).

1 2 3 4 5

15. Do any of these factors affect your ability to ride a bike as a woman (with a migrant background) in Copenhagen? Choose all that apply. / Påvirker nogle af disse faktorer din evne til at cykle som kvinde med indvandrer baggrund i København? Vælg alt, hvad der er relevant.

☐ Fear of harassment / Frygt for chikane
☐ Dim street lights / Svagt lys
☐ Being alone / at være alene
☐ None / Ingen
☐ Other: / Andet: _____

16. If you still do not ride the bicycle often, what would have to change in order for you to ride the bike more? / Hvis du ikke cykler ofte, hvad skal der så ændres på, for at du kan cykle mere?

17. Are you aware of any new projects or existing bicycle paths around Tingbjerg that you utilize? To what extent are you invested in what happens with the local bicycle infrastructure around here? / Er du opmærksom på nye projekter eller eksisterende cykelstier omkring Tingbjerg, som du bruger? I hvor høj grad er du engageret i, hvad der sker med den lokale cykelinfrastruktur her omkring?

18. If you do not cycle, have you considered exploring external organizations or services that provide cycling classes? How much or how little of a priority is this for you? / Hvis du ikke cykler, har du så overvejet at udforske eksterne organisationer eller tjenester, der tilbyder cykelkurser? Hvor meget eller hvor lidt dette er en prioritet for dig?

19. Is there anything else you would like to add? / Er der andet, du gerne vil tilføje

Appendix F

Semi-structured interview questions prepared for Group B, Frederiksberg.

QUESTIONNAIRE. / SPØRGESKEMA.

The following survey will ask you questions regarding your demographics, your habitual modes of transport, your perspectives on the bicycle training class, and your overall perception and relationship towards the bicycle. Thank you for sharing your time with me :)

___

Den følgende undersøgelse vil stille dig spørgsmål vedrørende din demografi, dine perspektiver på cykeltræningsklassen, dine sædvanlige transportformer og din opfattelse og holdning til cyklen. Svar venligst efter bedste evne. Tak fordi du deler din tid med mig :)

Part 1 | Demographics

1. How old are you? / Hvor gammel er du?

2. Which best describes you? Choose all that apply. / Hvilken beskriver dig bedst? Vælge noget, der gælder.

- ☐ Employed full-time / Fuldtidsansat
- ☐ Employed part-time / Deltidsansat
- ☐ Searching for work / Søger arbejde
- ☐ Stay at home mother / Bliv hjemme mor
- ☐ Student / Studerende
- ☐ Other: / Andet: _____

3. What is your most recent level of education? / Hvad er dit seneste uddannelsesniveau?

4. Do you have any children? / Har du nogen børn?

5. What is your cultural background? (Where were you born/raised)? How long have you lived in Denmark? / Hvad er din kulturelle baggrund? (Hvor er du født og opvokset)? Hvor længe har du boet i Danmark?

6. In which district do you live? / I hvilken distrikt bor du?

7. What is your primary mode of transportation? / Hvad er din primære transportform?

- ☐ Car / Bil
- ☐ Public transportation (bus or metro) / Offentlig transport (bus eller metro)
- ☐ Bicycle / Cykel
- ☐ By foot (walking) / Til fods
- ☐ Other: / Andet: _____

Part 2 | Cycling Training Course Participation

8. Why did you decide to participate in this training class? What was your motivation(s) to ride the bicycle? / Hvorfor valgte du at deltage i dette kursus? Hvad var din motivation for at cykle?

- ☐ Convenience (it is easy and quick to get around) / Bekvemmelighed (det er nemt og hurtigt at komme rundt)
- ☐ Recreational (to have fun, enjoy local scenery, take the children out) / Rekreativ (at have det sjovt, nyde det lokale landskab, tage børnene med ud)
- ☐ Health Reasons (to stay healthy and get some fresh air) / Sundhedsmæssige årsager (for at forblive sund og få noget frisk luft)
- ☐ Everyday commuting (going to school, work, running errands) / Daglig pendling (at gå i skole, arbejde, løbe ærinder)
- ☐ Other:/ Andet: _____

9. Please share more about your level of experience in cycling before attending this class. / Fortæl venligst mere om dit niveau af cykelerfaring, før du deltager i dette kursus.

10. How often do you come to the training class? How long have you been attending these classes for? / Hvor ofte deltager du i undervisningen? Hvor længe har du gået til disse kurser?

11. How did you find out about this training course? / Hvordan fik du kendskab til dette kursus?

12. How did the people in your life (friends, family, coworkers, acquaintances) react when they knew you were participating in these classes? / Hvordan reagerede folk i dit liv (venner, familie, kolleger, bekendte), da de fandt ud af, at du deltog i disse kurser?

13. What has been your favorite outcome of the training classes? / Hvad har været dit bedste resultat af træningsklasserne?

Part 3 | Perceptions Towards Cycling

14. At this point, how comfortable do you feel riding a bike? Explain. (1 = the least comfortable, 5 = the most comfortable). / På dette tidspunkt, hvor behagelig føler du dig ved at cykle? Forklare. (1 er det mindst behagelige og 5 er det mest behagelige).

1 2 3 4 5

15. At this point, how often do you ride the bike around the city? What is the reason? / På dette tidspunkt, hvor ofte bruger du cyklen rundt i byen? Hvad er grunden til det?

- ☐ Everyday / Hver dag
- ☐ Few times per week / Få gange om ugen
- ☐ Few times per month / Få gange om måneden
- ☐ Few times per year / Få gange om året
- ☐ Never / Aldrig
- ☐ Other: / Andet: _____

16. Do you cycle alone or with others? Why? / Cykler du alene eller sammen med andre? Hvorfor?

17. Are there any areas of the city where you feel safe or unsafe passing through? Which areas are they and why? / Er der nogle områder i byen, hvor du føler dig tryg eller utryg ved at gå igennem? Hvilke områder er de og hvorfor?

18. Since you began to cycle, how has your perception of Copenhagen changed? / Hvordan har din opfattelse af København ændret sig, siden du begyndte at cykle?

19. How does it make you feel to cycle as a woman (with a migrant background) in Copenhagen? / Hvordan føles det at cykle som kvinde i København?

- ☐ Positive outcome (i.e. I feel empowered, confident, safer, more efficient, I have more freedom) / Positivt resultat (Jeg føler mig styrket, mere selvsikker, sikrere, mere effektiv, jeg har mere frihed)
- ☐ Negative outcome (i.e. I am outside my comfort zone, I don't like how it makes me feel, I prefer another mode of transportation) / Negativt resultat (Jeg er uden for min komfortzone, jeg kan ikke lide, hvordan det får mig til at føle, jeg foretrækker en anden transportform)
- ☐ Neutral (I have no strong opinion) / Neutral (jeg har ingen stærk mening)
- ☐ Other: / Andet: _____

20. How easy or difficult has it been to adapt to the local bicycle culture here in Copenhagen? Explain. (1 = the least difficult, 5 = the most difficult). / Var det nemt eller svært at tilpasse sig den lokale cykelkultur her i København? Forklare. (1 = den mindst vanskelige, 5 = den sværeste).

1 2 3 4 5

21. Do any of these affect your ability to ride as a woman (with a migrant background) in Copenhagen? Choose all that apply and explain. / Påvirker nogle af disse faktorer din evne til at cykle som kvinde (med indvandrerbaggrund) i København? Vælg alt, hvad der er relevant og forklare.

- ☐ Fear of harassment / Frygt for chikane
- ☐ Dim street lights / Svagt lys
- ☐ Being alone / at være alene
- ☐ None / Ingen
- ☐ Other: / Andet: _____

22. If you still do not ride the bicycle often, what would have to change in order for you to ride the bike more? / Hvis du ikke cykler ofte, hvad skal der så ændres på, for at du kan cykle mere?

23. Is there anything else you would like to add? / Er der andet, du gerne vil tilføje?